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JUNTA DE CALIDAD AMBIENTAL

Aprobado: Héctor Luis Acevedo
Secretario de Estado

Por: [Signature]
Secretaria Auxiliar de Estado

A tenor y de acuerdo a la Ley de Política Pública Ambiental
(Ley Número 9 del 18 de junio de 1970, según enmendada),
estas

ENMIENDAS AL
REGLAMENTO PARA EL CONTROL DE LOS
DESPERDICIOS SOLIDOS PELIGROSOS Y NO
PELIGROSOS

han sido promulgadas mediante Resolución de la Junta de
Gobierno de la Junta de Calidad Ambiental de fecha 24 de
julio de 1987.

En San Juan, Puerto Rico, hoy 19 de agosto de 1987.

[Signature]

SANTOS ROHENA, JR.
Presidente

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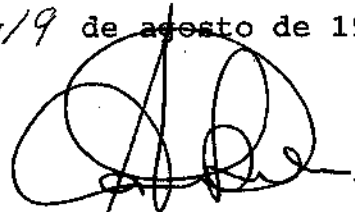
JUNTA DE CALIDAD AMBIENTAL

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A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a series of loops and a horizontal stroke at the end.

SANTOS ROHENA, JR.
Presidente

ENMIENDAS AL REGLAMENTO PARA
EL CONTROL DE LOS DESPERDICIOS SOLIDOS
PELIGROSOS Y NO PELIGROSOS
1987

I N D I C E

I	-	40 CFR 260
II	-	40 CFR 261
III	-	40 CFR 262
IV	-	40 CFR 263
V	-	40 CFR 264
VI	-	40 CFR 265
VII	-	40 CFR 266
VIII	-	40 CFR 270
IX	-	DISPONIBILIDAD DE DOCUMENTOS
X	-	CARGOS POR PERMISOS
XI	-	ANEJOS

NOTA: Para facilitar la revisión de estas enmiendas con la Reglamentación Federal se incluyen en el orden en que aparecen en el Código de Reglamentación Federal.

-I-

40 CFR 260

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTES I, II y VI

Se enmienda la regla 102 para añadir la siguiente definición:

Caldera significa un aparato cerrado que utiliza una flama controlada para la combustión y que tiene las siguientes características:

- (1) (i) La unidad debe tener provisiones físicas para el recobro y exportación de la energía térmica en forma de vapor, líquidos de transferencia de calor (heated fluids) o gases de transferencias de calor (heated gases); y
- (ii) La cámara de combustión de la unidad y las secciones primarias de recobro de energía deben tener un diseño integral. Para tener un diseño integral, la cámara de combustión y las secciones primarias de recobro de energía (tales como tabiques de agua (waterwalls) y recalentadores) deben de estar físicamente integrados en una sola unidad de manufactura o montaje. Una unidad donde la cámara de combustión y las secciones primarias de recobro de energía estén unidas solo por conductos o conexiones que lleven los gases producto de la combustión, no está diseñada integralmente; sin embargo, el equipo secundario de recobro de energía (tales como economizadores o precalentadores de aire) no necesita estar físicamente integrado en una misma unidad como la cámara de combustión y la sección primaria de recobro de energía. Las siguientes unidades no están excluidas de ser calderas solamente porque no tienen un diseño integral: calentadores de proceso (unidades que transfieren energía directamente al proceso) y unidades de combustión de lecho fluidificado; y
- (iii) Mientras esté en operación, la unidad debe mantener una eficiencia de recobro de energía térmica de por lo menos un 60%, calculado en términos de la energía recuperada comparada con el valor térmico del combustible; y

- (iv) La unidad debe exportar y utilizar por lo menos un 75% de la energía recobrada, calculada sobre una base anual. En este cálculo no se debe dar crédito por el calor recobrado usado internamente en la misma unidad. (Como ejemplos de uso interno están el precalentamiento de combustible o aire utilizado en el proceso de combustión y el manejo de abanicos o bombas de agua de alimentación inducidas o forzadas); o
- (2) La unidad es aquella que la Junta ha determinado, caso-a-caso, que es una caldera luego de haber considerado las normas establecidas en la Regla 610 de este reglamento.

Manifiesto: El documento originado y firmado por el generador que la Junta haya adoptado mediante Resolución para identificar la cantidad, composición, origen, ruta y destino de todo aquel desperdicio peligroso que ha sido transportado hacia una facilidad de tratamiento, almacenamiento y disposición de desperdicios peligrosos.

Número de Manifiesto: El número de identificación de doce dígitos asignado por la APA al generador además de un número único de cinco dígitos que tiene el documento, asignado por el generador al manifiesto, para propósitos informativos y de registro.

Esta enmienda es equivalente al 40 CFR Sección 260.10.

Se enmiendan las siguientes definiciones de la Regla 102 para que en lo sucesivo lean como sigue:

Facilidad Designada significa una facilidad de tratamiento, almacenamiento o disposición de desperdicios peligrosos la cual ha recibido un permiso de la Junta o de la APA (o una facilidad con estatus interino) de acuerdo a los requisitos de la Parte IX-I de este reglamento, o que este reglamentada bajo la Regla 606 B (3)(b) o la Regla 1106 de este reglamento, y que haya sido designada por el generador en un manifiesto de acuerdo con la Regla 703 de este reglamento.

Incinerador es cualquier aparato cerrado que utilice una flama controlada de combustión y que no cumple con los criterios para clasificarlo como caldera ni tampoco esta listado como horno industrial.

Estas definiciones son equivalentes al 40 CFR Sección 260.10.

Se enmienda la Regla 102 para añadir las siguientes definiciones:

Horno industrial es cualquiera de los siguientes aparatos cerrados que son componentes integrados de los procesos de manufactura y que utilizan artefactos de flama controlada para llevar a cabo el recobro de materiales o energía:

- (1) Hornos de cemento
- (2) Calderas (Hornos de quema caliza para extraer la cal), "Lime kilns".
- (3) Hornos de mezclado, "Aggregate Kilns"
- (4) Hornos de fosfato, "Phosphate Kilns"

- (5) Horno de coque (Carbón poroso, residuo de la calcinación de la hulla en la fabricación del gas), "Coke kilns".
- (6) Hornos de cuba (Alto horno. Cuba es un recipiente de madera, cerrado por ambos extremos, tonel), "Blast furnaces".
- (7) Fundición, hornos de fundición y refinación (incluyendo aparatos pirometalúrgicos como cubilotes hornos donde se verifica en las fundiciones la segunda fusión del hierro colado, hornos de reverbero el que utiliza la reverberación (calcinación hecha en un horno de reverbero) del calor, máquina de toba piedra caliza muy ligera (o máquinas de incrustación depósito de carbonato de cal que se forma en las paredes de las calderas de vapor), asadores y hornos de fundición).
- (8) Reactores de proceso de oxidación de dióxido de cloruro de titanio.
- (9) Hornos de conversión de metano
- (10) Hornos de recuperación de licor madre de procesos de extracción de pulpa de madera.
- (11) Aparatos de combustión usados en la recuperación de azufre del ácido sulfúrico usado.
- (12) Otros aparatos que la Junta decida, luego de notificarlo y comentarlo, y que se añada a esta lista en base a uno o más de los siguientes factores:

- (i) El diseño y uso del aparato principalmente para lograr el recobro de productos materiales;
- (ii) El uso del aparato para quemar o reducir la materia prima para hacer un producto material;
- (iii) El uso del aparato para quemar o reducir los materiales secundarios como substitutos efectivos de materias primas en procesos donde se utilizan materias primas como material principal de insumo;
- (iv) El uso del aparato para quemar o reducir materiales secundarios como ingredientes en un proceso industrial para hacer un producto material.
- (v) El uso del aparato en la práctica industrial común para producir un producto material; y
- (vi) Otros factores, según apropiado.

Generador de Pequeñas Cantidades es aquel generador que genera menos de 1,000 kg de desperdicios peligrosos en un mes calendario.

Esta enmienda es equivalente al 40 CFR Sección 260.10.

Se enmienda la siguiente regla para que en lo sucesivo lea como sigue:

Regla 208 B - Solicitudes de Revisión

1. Cualquier persona podrá solicitar a la Junta que modifique o anule cualquier regla establecida en las partes I a la VIII-II de este reglamento. Este inciso establece unos requisitos generales aplicables a todas las solicitudes. La Regla 208 H establece requisitos adicionales cuando se solicita añadir un método de prueba o analítico a las partes I, VI, VIII-I ó VIII-II de este reglamento. La Regla 208 G establece requisitos adicionales para solicitudes para excluir un desperdicio producido en una facilidad particular de la Regla 102 o de la Lista de desperdicios peligrosos establecida en la Regla 607 de este reglamento.
2. Cada solicitud deberá ser sometida a la Junta por correo certificado y deberá incluir lo siguiente:
 - a. El nombre y dirección del solicitante;
 - b. Una declaración del interés del solicitante sobre la acción propuesta;
 - c. Una descripción de la acción propuesta incluyendo (cuando sea apropiado) el propuesto lenguaje reglamentario; y
 - d. Una declaración de las necesidades y justificación de la acción propuesta incluyendo cualquier prueba de apoyo, estudios u otra información.

3. La Junta emitirá una decisión tentativa para otorgar o denegar una solicitud y publicará un aviso sobre esa decisión tentativa ya sea mediante un aviso anticipando la regla propuesta, publicando la regla o una determinación tentativa de denegar la petición. Esto se efectuará en un periódico de circulación general para comentarios del público.
4. A petición por escrito de persona interesada, la Junta podrá, a su discreción, efectuar una vista pública informal para considerar comentarios orales sobre la decisión tentativa. Una persona que solicite una vista debe establecer los puntos a ser discutidos y explicar porque los comentarios escritos no serían suficientes para comunicar los puntos de vista de la persona. La Junta puede en cualquier caso, efectuar una vista pública informal motu proprio.
5. Luego de evaluar todos los comentarios públicos, la Junta tomará una decisión final la cual publicará mediante aviso público. La misma será aceptando o denegando la solicitud.

Esta regla es equivalente al 40 CFR Sección 260.20.

Se enmienda la siguiente regla para que en lo sucesivo lea como sigue:

Regla 208-G Peticiones para enmendar la Parte VI de este Reglamento para Excluir un Desperdicio Sólido Peligroso Producido en una Facilidad Particular

1. Toda persona que trata de obtener la exclusión de un desperdicio de una facilidad generante particular, incluido en la lista que aparece en la Regla 607, podrá solicitar una enmienda al reglamento bajo el inciso B de esta regla y bajo

este inciso. Para lograrlo, el solicitante deberá demostrar a satisfacción de la Junta que el desperdicio producido por una facilidad generante particular no cumple con ninguno de los criterios bajo los cuales el desperdicio fue anotado como desperdicios peligroso y, en el caso de un desperdicio severamente peligroso anotado bajo la Regla 603 B (2), que tampoco cumple con los criterios establecidos en la Regla 603 B (3). Basado en una solicitud completa, la Junta determinará si tiene una razón justificada para creer que otros factores, además de los que causaron que el desperdicio fuera listado (incluyendo constituyentes adicionales), pueden hacer que el desperdicio sea peligroso, y por esta razón es necesario mantenerlo como tal. Un desperdicio que ha sido excluido seguirá siendo un desperdicio peligroso si aplica la Regla 604 de este reglamento.

2. Los procedimientos en este inciso y en el inciso B de esta regla también se utilizarán para solicitar a la Junta una enmienda al reglamento para excluir, de la Regla 102 (Definición de desperdicio peligroso), un desperdicio que ha sido descrito en esa regla y que también es un desperdicio anotado en la Regla 607, contiene un desperdicio anotado en la Regla 607 o es derivado de un desperdicio anotado en la Regla 607. Esta exclusión sólo se puede emitir para una facilidad particular de generación, almacenamiento, tratamiento o disposición. El peticionario debe de hacer la misma demostración según requerida en el inciso G (1) de esta regla, excepto que cuando un desperdicio es una mezcla de desperdicio sólido con uno o más desperdicios peligrosos, o es derivado de uno más desperdicios peligrosos, su demostración debe ser hecha con respecto a cada constituyente del desperdicio anotado o a la mezcla del desperdicio como tal. Un desperdicio excluido de esta forma seguirá siendo un desperdicio peligroso si aplica la Regla 604.

3. Si el desperdicio es anotado con los códigos "I", "C", "R" o "E" en la regla 607, el peticionario debe indicar que las pruebas de demostración del desperdicio no exhiben las características relevantes definidas en los incisos A, B, C, o D de la Regla 604 utilizando cualquier método de prueba aplicable descrito en estos, u otro aplicable. Basado en una solicitud completa, la Junta determinará si tiene una razón justificada para creer que otros factores, además de los que causaron que el desperdicio fuera listado (incluyendo constituyentes adicionales), pueden hacer que el desperdicio sea peligroso, y por esta razón es necesario mantenerlo como tal.
4. Si el desperdicio está anotado con el código "T" en la Regla 607:
 - a. El peticionario debe demostrar que el desperdicio:
 - i. No contiene el constituyente o constituyentes (según definido en el Anejo B-14) causante de que el desperdicio fuera anotado, utilizando los métodos de prueba apropiados prescritos en el Anejo C-2; o
 - ii. Aunque contiene uno o unos constituyentes peligrosos (según definido en el Anejo C-3) por los cuales ha sido anotado como desperdicio, no cumple los criterios de la Regla 261.11 (a) (3) cuando se consideran los factores de la Regla 261.11 (a) (3) (i) a la (xi) bajo los cuales el desperdicio fue listado como peligroso; y
 - b. Basado en una solicitud completa, la Junta determinará si tiene una razón justificada para creer que otros factores, además de los que causaron que el desperdicio fuera listado (incluyendo constituyentes adicionales), pueden hacer que el desperdicio sea peligroso, y por esta razón es necesario mantenerlo como tal.

- c. El solicitante demostrará que el desperdicio no exhibe ninguna de las características de la Parte VI, utilizando los métodos prescritos en ella.
 - d. Un desperdicio excluido de esta forma aun puede ser un desperdicio peligroso si aplica la Regla 604.
5. Si el desperdicio esta anotado con el código "H" en la Regla 607:
- a. El solicitante debe demostrar que el desperdicio no cumple con ninguno de los siguientes criterios:
 - i. Los criterios de la Regla 603 B (2); y
 - ii. Basado en una solicitud completa, la Junta determinará si tiene una razón justificada para creer que otros factores, además de los que causaron que el desperdicio fuera listado (incluyendo constituyentes adicionales), pueden hacer que el desperdicio sea peligroso, y por esta razón es necesario mantenerlo como tal.
 - b. El solicitante demostrará que el desperdicio no exhibe ninguna de las características de la Parte VI, utilizando los métodos prescritos en ella.
 - c. Un desperdicio excluido de esta forma aun puede ser un desperdicio peligroso si aplica la Regla 604.
6. (Reservada para anotar desperdicios radioactivos).
7. (Reservada para anotar desperdicios infecciosos).

8. Las pruebas de demostración consistirán de suficientes pruebas representativas, pero nunca deben ser menos de cuatro muestras. Estas serán tomadas durante un periodo de tiempo suficiente para representar la variabilidad o uniformidad del desperdicio.
9. Cada petición debe incluir, además de la información requerida en la Regla 208 B (2)
 - a. El nombre y la dirección de la facilidad de laboratorio que lleve a cabo el muestreo y análisis del desperdicio;
 - b. Los nombres y cualificaciones de las personas que muestreen y examinen el desperdicio;
 - c. Las fechas de los muestreos y las pruebas;
 - d. La localización de la facilidad generante;
 - e. Una descripción del proceso de manufactura u otras operaciones y materiales que producen el desperdicio y una evaluación para saber si esos procesos, operaciones o materiales producen o pueden producir un desperdicio no cubierto por la demostración;
 - f. Una descripción del desperdicio y un estimado de las cantidades promedio y cantidades máximas mensuales y anuales del desperdicio cubierto por la demostración;
 - g. Los datos pertinentes y la discusión de los factores delineados en los respectivos criterios para anotar un desperdicio peligroso, cuando la demostración este basada en los factores de la Regla 603 B (3);
 - h. Una descripción de la metodología y equipo utilizado para obtener las muestras representativas;

- i. Una descripción de las técnicas de manejo y preparación de muestras incluyendo las técnicas utilizadas para la extracción, envase y preservación de las muestras;
- j. Una descripción de las pruebas realizadas (incluyendo los resultados);
- k. Los nombres y los números de los modelos de los instrumentos utilizados para realizar las pruebas; y
- l. La siguiente declaración firmada por el generador del desperdicio o su representante autorizado:

"Certifico bajo pena de ley que he examinado personalmente y estoy familiarizado con la información sometida en esta demostración y en todos los documentos adjuntos y que, basado en mi investigación de aquellas personas inmediatamente responsables de obtener la información, entiendo que la información es verdadera, precisa y completa. Estoy conciente que hay penalidades significativas por someter información falsa, incluyendo la posibilidad de multa y encarcelación".

- 10. Luego de recibir una solicitud para una exclusión, la Junta puede solicitar cualquier información adicional que razonablemente se requiera para evaluar la petición.
- 11. La exclusión aplicará solamente al desperdicio generado por la facilidad cubierta por la demostración y no aplicará al desperdicio de otra facilidad.

12. La Junta puede excluir parte del desperdicio para el cual se somete la demostración cuando hay razón para creer que la variabilidad del desperdicio justifica una exclusión parcial.

Esta regla es equivalente al 40 CFR Sección 260.22.

Se enmienda la Parte II de este reglamento para añadir lo siguiente como la regla 208 H.

H. Peticiones para añadir métodos de prueba o analíticos, equivalentes.

1. Cualquier persona que solicite que se añada un método de prueba o analítico a las Partes I, VI, VIII-I u VIII-II de este reglamento debe solicitar una enmienda al reglamento bajo este inciso y bajo el inciso B de esta regla. Para esto la persona debe demostrar, a satisfacción de la Junta, que el método propuesto es igual o superior al método correspondiente establecido en las partes I, VI, VIII-I u VIII-II de este reglamento en términos de su precisión, exactitud y sensibilidad (por ejemplo, reproducibilidad).
2. Cada solicitud debe incluir, además de la información requerida en la Regla 208 B (2), lo siguiente:
 - a. Una descripción completa del método propuesto incluyendo el procedimiento y el equipo utilizado en el método;
 - b. Una descripción de los tipos de desperdicios o matrices del desperdicio para las cuales el método propuesto va a ser utilizado.

- c. Resultados comparativos obtenidos al utilizar el método propuesto con aquellos obtenidos al usar los métodos relevantes o correspondientes descritos en las Partes I, VI, VIII-I u VIII-II de este reglamento.
 - d. Una evaluación de cualquier factor que pueda interferir con o limitar el uso del método propuesto; y
 - e. Una descripción de los procedimientos de control de calidad necesarios para asegurar la sensibilidad, exactitud y precisión del método propuesto.
3. Luego de recibir la solicitud para un método equivalente, la Junta puede requerir cualquier información adicional del método propuesto que sea razonablemente necesaria para evaluar el mismo.
4. Si la Junta enmienda el reglamento para permitir el uso de un nuevo método de prueba, el método será incorporado en el "Test Methods for the Evaluation of Solid Waste: Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460, utilizado por la Junta.

Esta regla es equivalente al 40 CFR Sección 260.21.

Se enmienda la Parte VI de este reglamento para añadir lo siguiente como la regla 609 A:

Regla 609A Cambios en la clasificación como desperdicio sólido:

De acuerdo con las normas y criterios establecidos en la Regla 609 de este reglamento y los procedimientos establecidos en la Regla 611 de este reglamento, la Junta puede determinar caso-a-caso, que los siguientes materiales reciclados no son desperdicios sólidos:

- (1) Materiales que son acumulados especulativamente sin que una cantidad suficiente sea reciclada (como se define en la Regla 102 de este reglamento);
- (2) Materiales que son reclamados y luego reusados dentro del proceso original de producción primaria en el cual son generados;
- (3) Materiales que han sido reclamados pero que aun deben ser reclamados mas, antes de que los materiales sean completamente recobrados.

Esta regla es equivalente al 40 CFR Sección 260.30.

Se enmienda la Parte VI para añadir lo siguiente como la Regla 609B:

Regla 609B Normas y Criterios para los cambios en la clasificación como desperdicio sólido:

- (1) La Junta puede otorgar solicitudes para un cambio en la clasificación como desperdicio sólido a aquellos materiales que son acumulados especulativamente sin que una cantidad suficiente sea reciclada, si el solicitante demuestra que una cantidad suficiente del

material será reciclado o transferido para reciclaje en el próximo año. Si el cambio es otorgado, será válido solo por el año siguiente pero puede ser renovado, anualmente, llenando una nueva solicitud. La decisión de la Junta estará basada en las siguientes normas y criterios:

- (a) La manera en la cual se espera que el material sea reciclado, cuando se espera que sea reciclado, y si esta esperada disposición es probable que ocurra (por ejemplo por prácticas pasadas, factores de mercado, la naturaleza del material o arreglos contractuales para el reciclaje);
 - (b) La razón por la cual el solicitante ha acumulado el material por uno o mas años sin haber reciclado el 75% del volumen acumulado a principios del año;
 - (c) La cantidad de material acumulada y la cantidad que se espera generar y acumular antes de que el material sea reciclado;
 - (d) El grado de manejo del material para minimizar la pérdida;
 - (e) Otros factores relevantes.
- (2) La Junta puede aprobar solicitudes para un cambio en la clasificación como desperdicio sólido a aquellos materiales que son reciclados y luego reusados como alimento para ganado dentro del proceso original de producción primaria en el cual los materiales fueron generados si la operación de reclamación es una parte esencial del proceso de producción. Esta determinación estará basada en los siguientes criterios:

- (a) Cuan económicamente viable será el proceso de producción si se utilizara material virgen en lugar de material reclamado;
 - (b) El predominio de la práctica a nivel industrial;
 - (c) El grado en que el material es manejado antes de la reclamación para minimizar la pérdida;
 - (d) El periodo de tiempo entre la generación del material y su reclamación, y entre la reclamación y el regreso al proceso original de producción primaria;
 - (e) La ubicación de la operación de reclamación en relación al proceso de producción;
 - (f) Si el material reclamado es utilizado con el propósito para el cual fue originalmente producido cuando es devuelto al proceso original, y si al ser devuelto al proceso mantiene substancialmente su forma original;
 - (g) Si la persona que genera el material también lo reclama;
 - (h) Otros factores relevantes.
- (3) La Junta puede aprobar solicitudes para un cambio en la clasificación como desperdicio sólido a aquellos materiales que han sido reclamados pero deben ser reclamados nuevamente antes de que el recobro sea completado, si, después de la reclamación inicial, el material resultante es comercial (aunque no sea todavía un producto comercial y tenga que ser reclamado ulteriormente). Esta determinación estará basada en los siguientes factores:

- (a) El grado de proceso que el material ha sufrido y el grado adicional de proceso requerido;
- (b) El valor del material luego de haber sido reclamado;
- (c) El grado en el cual material reclamado es como un material crudo análogo;
- (d) El grado en que existe la garantía de un mercado final para el material reclamado;
- (e) El grado en el que el material reclamado es manejado para minimizar la pérdida;
- (f) Otros factores relevantes.

Esta regla es equivalente al 40 CFR Sección 260.31.

Se enmienda la Parte VI para añadir lo siguiente como la Regla 610:

Regla 610 Cambio para clasificar como caldera.

De acuerdo a las normas y criterios establecidos en la Regla 102 (definición de "caldera"), y los procedimientos establecidos en la Regla 611, la Junta puede determinar, caso-a-caso, que ciertos aparatos cerrados que utilicen una flama de combustión controlada, son calderas aunque de otro modo no cumplan con la definición de caldera contenida en la Regla 102, luego de considerar los siguientes criterios:

- (1) El grado en el cual la unidad tiene provisiones para recobrar y exportar energía térmica en forma de vapor, flúidos calientes o gases calientes; y

- (2) El grado en el cual la cámara de combustión y el equipo de recobro de energía tienen un diseño integral; y
- (3) La eficiencia del recobro de energía, calculado en términos del recobro de energía comparado con el valor térmico del combustible; y
- (4) El grado en el cual la energía exportada es utilizada; y
- (5) El grado en el cual el aparato es de uso común y usual como una caldera, funcionando principalmente para producir vapor, fluidos calientes o gases calientes; y
- (6) Otros factores, según sea apropiado

Esta regla es equivalente al 40 CFR Sección 260.32.

Se enmienda la Parte VI para añadir lo siguiente como la Regla 611:

Regla 611 Procedimientos para cambios en la clasificación como desperdicio sólido o para ser clasificado como caldera.

La Junta utilizará los siguientes procedimientos para evaluar las solicitudes para cambios en la clasificación como desperdicio sólido o las solicitudes para clasificar algunos aparatos cerrados de combustión por flama como calderas:

- (1) La solicitud debe seguir los criterios relevantes contenidos en las Reglas 609 ó 610 de este reglamento.
- (2) La Junta evaluará la solicitud y emitirá un borrador de notificación, por escrito, otorgando o denegando tentativamente la solicitud. La notificación de esta decisión tentativa será provista por un anuncio en el periódico y por transmisión radial. La Junta aceptará comentarios sobre esa decisión tentativa por 30 días, y también podrá sostener una vista pública si es solicitada o a su discreción. La Junta emitirá una decisión final luego de recibir los comentarios y luego de la vista (si alguna) y esta decisión no será apelada a la Junta.

Esta regla es equivalente al 40 CFR Sección 260.33.

Se enmienda la Parte VI para añadir lo siguiente como la Regla 612:

Regla 612 Reglamentación adicional para ciertas actividades de reciclaje de desperdicios peligrosos aplicables caso-a-caso

- (1) La Junta puede decidir caso-a-caso, que las personas que esten acumulando o almacenando el material reciclado descrito en la Regla 606 B (1) (b) (iv) de este reglamento debe ser reglamentada bajo la Regla 606 B (2) y (3). Las bases para esta decisión es que los materiales están siendo acumulados o almacenados en una forma que no se protege la salud humana ni el ambiente porque los materiales o sus constituyentes tóxicos no están siendo contenidos adecuadamente, o porque los materiales que se estan acumulando o almacenando juntos son incompatibles. Al hacer esta decisión, la Junta considerará los siguientes factores:

- (a) Los tipos de materiales acumulados o almacenados y las cantidades acumuladas o almacenadas;
- (b) El método de acumulación o almacenaje;
- (c) Cuanto tiempo los materiales han sido acumulados o almacenados antes de ser reclamados;
- (d) Si algún contaminante ha sido descargado hacia el ambiente, o puede ser descargado ; y
- (e) Otros factores relevantes.

Los procedimientos para esta decisión están establecidos en la Regla 613 de este reglamento.

Esta regla es equivalente al 40 CFR Sección 260.40.

Se enmienda la Parte VI para añadir lo siguiente como la Regla 613:

Regla 613 Procedimientos para la reglamentación caso-a-caso de actividades de reciclaje de desperdicios sólidos peligrosos

La Junta seguirá los siguientes procedimientos para determinar cuando reglamentar las actividades de reciclaje de desperdicios peligrosos descritos en la Regla 606 B (1) (b) (iv) bajo las disposiciones de la Regla 606 B (2) y (3) en lugar de las establecidas en la Regla 1106 de este Reglamento.

- (1) Si un generador esta acumulando el desperdicio, la Junta emitirá una notificación estableciendo los hechos para la decisión y estableciendo que la persona debe cumplir con los requisitos aplicables de las Partes V y VII de este Reglamento. La notificación será final dentro de los próximos 30 días a menos que la persona notificada solicite una vista pública para objetar la decisión. Al recibir esta solicitud, la Junta celebrará una vista pública y emitirá un Aviso Público de la misma permitiendo la participación del público. Luego de la vista la Junta emitirá una orden final estableciendo si se requiere o no cumplimiento con las Partes V y VII de este Reglamento. La orden será efectiva treinta (30) días luego del reemplazamiento de la misma a menos que la Junta especifique una fecha posterior o solicite una revisión a la misma. La orden puede ser apelada a la Junta por cualquier persona que haya participado en la vista pública. La Junta puede otorgar o denegar la apelación. Una acción final de la Agencia ocurre cuando una orden final es emitida y los procedimientos de revisión de la Agencia han sido agotados.
- (2) Si la persona esta acumulando el material reciclable como una facilidad de almacenamiento, la notificación establecerá que la persona debe obtener un permiso siguiendo los requisitos aplicables de la Parte IX-I de este reglamento. El dueño u operador de la facilidad tiene que solicitar un permiso no menos de sesenta (60) días y no más de seis (6) meses a partir de la notificación, según especificado en la notificación. Si el dueño u operador de la facilidad desea refutar la decisión de la Junta, lo puede hacer en la solicitud del permiso, en la vista pública sostenida para el

borrador del permiso, en los comentarios presentados en el borrador del permiso o en la notificación de intención de denegar el permiso. La hoja de datos que acompaña el permiso especificará las razones para la determinación de la Agencia. Cualquier pregunta sobre si la decisión de la Junta fue correcta quedará abierta a consideración durante el periodo de comentarios públicos discutido bajo la Regla I-912 I de este reglamento y en cualquier vista subsiguiente.

Esta regla es equivalente al 40 CFR Sección 260.41.



-II-

40 CFR 261

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTES I y VI



Se enmienda la definición de "desperdicios sólido" para diferenciar lo que es un desperdicio sólido para los propósitos de la reglamentación de desperdicio sólido peligroso y otra para la reglamentación de desperdicios sólidos no-peligrosos. Por tal motivo se enmienda la definición de desperdicio sólido como sigue:

I. Desperdicio Sólido

- A. Esta definición de desperdicio sólido aplicará a la reglamentación de desperdicios sólidos no peligrosos.

Cualquier desperdicio de comida, basura, cierno o cualquier "otro material desechado", incluyendo todo el "desperdicio sólido peligroso", excepto lo siguiente:

1. Desperdicio líquido doméstico (o cualquier mezcla de desperdicio doméstico y otros desperdicios que pasen a través de un sistema de alcatarillado hacia una "planta de tratamiento propiedad del gobierno" para su tratamiento;
2. Descargas de desperdicios líquidos industriales que son "descargas" de "fuentes precisadas" sujetas a reglamentación bajo la Ley de Agua Limpia, según enmendada;
3. Desperdicio líquido usado en la irrigación; y
4. Fuente nuclear especial, o material subproducto según definido por la Ley de Energía Atómica de 1954, según enmendada.

II. Desperdicio Sólido

A. Esta definición de desperdicio sólido aplicará a la reglamentación de desperdicio sólido peligroso.

B. Propósito y Alcance

(1) La definición de desperdicio sólido contenida en esta Parte aplica sólo a los desperdicios que también son peligrosos para propósitos de esta reglamentación según aparece en las Partes II, III, V, VI, VII, VIII-I, VIII-II, IX-I y XI. Por ejemplo, no es aplicable a materiales (como desechos no-peligrosos, papel, textiles o caucho) que de otro modo no son desperdicios peligrosos y que son reciclados.

(2) Esta parte identifica solo algunos de los materiales que son desperdicios peligrosos y desperdicios no-peligrosos según el Anejo C-8 y Anejo C-9. Un material que no es definido como desperdicio sólido en esta parte o que no es un desperdicio peligroso identificado o anotado en la Regla 607 de este reglamento, es todavía un desperdicio sólido y un desperdicio peligroso para propósitos de esta definición si:

(a) En el caso de 12 LPRA Secciones (21) y (34), la Junta tiene razones para pensar que el material puede ser un desperdicio sólido según definido en el Anejo C-7 y un desperdicio peligroso según definido en el Anejo C-7.

(b) En el caso de 12 LPRA 11 (19), se cumplen los elementos ahí incluidos.

Esta regla es equivalente al 40 CFR Sección 261.1 (b).

Se enmienda la Regla 102 (definición de desperdicio sólido) para añadir lo siguiente:

(3) Para propósitos de las Reglas 102 (definición de desperdicio sólido II) y 606 B:

- (a) "Material agotado" es cualquier material que ha sido usado y, como resultado de la contaminación, no puede servir mas los propósitos para los cuales fue producido sin procesar.
- (b) "Cieno" tiene el mismo significado utilizado en la Regla 102 de este reglamento;
- (c) "Subproducto" es un material que no es uno de los productos primarios del proceso de producción ni tampoco es producido, solo o separado, por el proceso de producción. Ejemplo de esto son los residuos de proceso como la escoria o el fondo de la columna de destilación. El término no incluye aquel producto secundario que es producido para uso general y es utilizado ordinariamente en la forma que es producido por el proceso.
- (d) "Material reclamado" es aquel material que es procesado para recobrar un producto utilizable o que es regenerado. Ejemplo de esto es el recobro del valor del plomo de las baterías agotadas y la regeneración de solventes agotados.
- (e) "Material usado o reusado" es aquel material que es:

- (i) Empleado como ingrediente (incluyendo su uso como intermediario) en un proceso industrial para hacer un producto (por ejemplo, el sedimento de destilación de un proceso utilizando como fuente de alimentación en otro proceso). Sin embargo, un material no podrá satisfacer esta condición sin distintos componentes del material son recobrados como productos finales separados (como cuando metales son recobrados de metales que contienen materiales secundarios); o
- (ii) Empleado en una función o aplicación particular como un sustituto efectivo para un producto comercial (por ejemplo, licor de salmuera agotado utilizado como agente precipitante de fósforo y como acondicionador de cienes en el tratamiento de aguas de albañal).
- (f) "Chatarra" significa fragmentos y piezas de partes de metal (por ejemplo, barras, virutas, varillas, planchas de metal, alambre o piezas de metal) que pueden ser unidas con tornillos o soldaduras (por ejemplo, radiadores, automóviles desechados, furgones de ferrocarril), las cuales cuando se deterioran o se inutilizan pueden ser recicladas.
- (g) "Material reciclado" es aquel material que ha sido usado, reusado o reclamado.
- (h) "Material acumulado especulativamente" es aquel material que es acumulado antes de ser reciclado. Sin embargo, un material no es acumulado especulativamente si la persona que lo esta acumulando puede demostrar que el material es potencialmente capaz de

ser reciclado y tiene medios viables para ser reciclado; y que, durante el año calendario (comenzando el primero de enero, la cantidad de material que haya sido reciclado, o transferido a un lugar diferente para ser reciclado, iguale por lo menos 75% por peso o volumen la cantidad de ese material acumulado al principio del periodo. Al calcular el porcentaje de cambio, el requisito del 75% se le aplicará a cada material del mismo tipo (i.e., la escoria producto de un proceso sencillo de fundición que es reciclada en la misma forma) esto es, de donde el material es recuperado o que es usado en la misma forma. Los materiales que son acumulados en unidades que pueden estar exentas de la reglamentación bajo la Definición de Desperdicio Sólido Peligroso, inciso B (10) no se incluyen al hacer este cálculo. (Los materiales que ya han sido definidos como desperdicio sólido tampoco se incluyen al hacer este cálculo). De cualquier modo, los materiales, dejan de pertenecer a esta categoría luego de no ser acumulados para reciclaje.

Este inciso es equivalente al 40 CFR Sección 261.1 (c).

Se enmienda la Regla 102 (Definición de Desperdicio Sólido) para que en lo sucesivo lea como sigue:

C. Definición de Desperdicio Sólido

- (1) (a) Desperdicio sólido es cualquier material desechado que no ha sido excluido por la Definición de desperdicio peligroso, inciso I-30 ni por una dispensa otorgada bajo las Reglas 608 y 609 de este reglamento.
- (b) Material desechado es todo aquel material que ha sido:

- (i) Abandonado, como se explica en el párrafo (2) de esta definición; o
 - (ii) Reciclado, como se explica en el párrafo (3) de esta definición; o
 - (iii) Considerado inherentemente como un desperdicio según el párrafo (4) de esta definición.
- (2) Desperdicio sólido es aquel material que ha sido abandonado por ser:
- (a) Dispuesto; o
 - (b) Quemado o incinerado; o
 - (c) Acumulado, almacenado o tratado (pero no reciclado) antes de o en lugar de ser abandonado por ser dispuesto, quemado o incinerado.
- (3) Es desperdicio sólido aquel material que ha sido reciclado, o acumulado, almacenado o tratado antes de ser reciclado, según se especifica en los párrafos (3) (a) al (3) (d) de esta definición.
- (a) Usado de forma que constituya disposición.
- (i) Los materiales señalados con un asterisco (*) en la Columna 1 de la Tabla 1 son desperdicios sólidos cuando son:
 - (A) Aplicados en o puestos en el terreno de forma tal que constituya disposición; o

(B) Usados para producir productos que son puestos en o aplicados al terreno o que de otra manera estén contenidos en productos que son puestos en o aplicados al terreno (en cuyo caso el producto mismo constituye un desperdicio sólido).

(ii) Sin embargo, los productos químicos comerciales anotados en la Regla 607 D no son desperdicios sólidos si son aplicados al terreno y esta es la forma ordinaria de utilizarlos.

(b) Quemado para recobro de energía.

(i) Materiales señalados con un asterisco (*) en la Columna 2 de la Tabla 1 son desperdicios sólidos cuando son:

(A) Quemados para recobro de energía;

(B) Usados para producir combustible o que de otra manera estén contenidos en combustibles (en cuyo caso el combustible mismo constituye un desperdicio sólido).

(ii) Sin embargo, los productos químicos comerciales anotados en la Regla 607 D no son desperdicios sólidos si ellos mismos son combustibles.

(c) Reclamados. Materiales señalados con un asterisco (*) en la Columna 3 de la Tabla 1 son desperdicios sólidos cuando son reclamados .

(d) Acumulados especulativamente. Materiales señalados con un asterisco (*) en la Columna 4 de la Tabla 1 son desperdicios sólidos cuando son acumulados especulativamente.

Tabla 1

	Usados Constituyendo disposición (Regla 102 (C) (1))	Recobro de energía/ combustible (Regla 102 (C) (2))	Reclamación (Regla 102 (C) (3))	Acumulación especulativa (Regla 102 (C) (4))
	(1)	(2)	(3)	(4)
Materiales agotados	(*)	(*)	(*)	(*)
Cienos (Anotados en la Regla 607 B o C)	(*)	(*)	(*)	(*)
Cienos exhibiendo una carac- terística de desper- dicio peligroso	(*)	(*)	-----	(*)
Subproductos (Anotados en la Regla 607 B o C)	(*)	(*)	(*)	(*)
Subproductos exhibiendo una carac- terística de desper- dicio peligroso	(*)	(*)	-----	(*)
Productos químicos comerciales anotados en la Regla 607 D	(*)	(*)	-----	-----
Chatarra	(*)	(*)	(*)	(*)

Nota: Los términos "materiales agotados", "Cienos", "subproducto" y "chatarra" son definidos en la Definición de Desperdicios Sólidos II.

- (4) Materiales que inherentemente se consideran como un desperdicio. Los siguientes materiales son desperdicios sólidos cuando son reciclados de cualquier forma:

(a) "Número de desperdicio peligroso. F020, F021 (a menos que se use como ingrediente para hacer un producto en el sitio de generación). F022, F023, F026 y F028.

(b) La Junta utilizará el siguiente criterio para añadir desperdicios a esta lista:

(i) (A) Los materiales son ordinariamente dispuestos, quemados o incinerados; o

(B) Los materiales contienen constituyentes tóxicos anotados en el Anejo C-3 y estos constituyentes no se encuentran ordinariamente en materias primas o productos para los cuales los materiales sustituyen (o se encuentran en la materia prima o productos en menores concentraciones) y no son usados o reusados durante el proceso de reciclaje; y

(ii) El material puede ser un peligro substancial a la salud humana y al ambiente cuando sea reciclado.

- (5) Materiales que no son desperdicio sólido cuando son reciclados.

(a) Los materiales no son desperdicios sólidos cuando pueden demostrar que son reciclados por ser:

(i) Usados o reusados como ingredientes en un proceso industrial para hacer un producto, siempre que los materiales no hayan sido reclamados; o

- (ii) Usados o reusados como substitutos efectivos para productos comerciales ; o
 - (iii) Devueltos al proceso original del que fuera generados, sin primero ser reclamados. El material debe ser devuelto como un substituto para la fuente de alimentación de materia prima, y el proceso debe usar materias primas como la fuente principal de alimentación.
- (b) Los siguientes materiales son desperdicios sólidos, aunque el reciclaje envuelva el uso, reuso o regreso al proceso original (descrito en los párrafos (5) (a) (i) - (iii) de esta definición):
- (i) Materiales usados de forma que constituye disposición, o usados para producir productos que son aplicados al terreno; o
 - (ii) Materiales quemados para el recobro de energía, usados para producir combustible o contenidos en combustibles; o
 - (iii) Materiales acumulados especulativamente; o
 - (iv) Materiales anotadas en el párrafo (4) (a) de esta definición.
- (6) Documentación de reclamaciones de materiales que no son desperdicios sólidos o que están condicionalmente exentos del reglamento.

Los demandados en acciones para cumplir con el Reglamento para el Control de los Desperdicios Sólidos Peligrosos y No-Peligrosos, que reclaman que cierto material no es un desperdicio sólido, o que esta condicionalmente exento del

reglamento, debe demostrar que hay un conocido mercado o disposición para el material y que ellos cumplen con los términos de la exclusión o exención. Al hacer esto, deben proveer la documentación apropiada (como contratos mostrando que una segunda persona usa el material como ingrediente en un proceso de producción) para demostrar que el material no es un desperdicio o que esta exento de reglamentación. Además, los dueños u operadores de facilidades que reclaman que actualmente ellos están reciclando materiales deben demostrar que tienen el equipo necesario para hacerlo.

Esta regla es equivalente al 40 CFR Sección 261.2.

Se enmienda la Regla 102 (Definición de Desperdicio Sólido) para añadir lo siguiente:

(7) Excepciones

Materiales que no son desperdicios sólidos. Los siguientes materiales no son desperdicios sólidos para propósitos de la Parte VI de este reglamento:

(a) (i) Desperdicio líquido doméstico; y

(ii) Cualquier mezcla de desperdicio líquido doméstico y otros desperdicios que pasen a través de un sistema de alcantarillado hacia una planta de tratamiento propiedad del gobierno para su tratamiento.
"Desperdicio líquido doméstico" significa aquellos desperdicios sanitarios no tratados que pasan a través de un sistema de alcantarillado.

- (b) Descargas de aguas usadas industriales que son descargas provenientes de una fuente que están sujetas a reglamentación bajo la Sección 402 de la Ley de Agua Limpia, según enmendada.

(COMENTARIO: Esta excepción aplica solo al punto de descarga de la fuente. No excluye las aguas usadas industriales mientras son recogidas, almacenadas o tratadas antes de ser descargados, tampoco excluye los cienos generados por el tratamiento de las aguas usadas industriales.).

- (c) Aguas recuperadas de irrigacion.
- (d) Fuente nuclear, material especial nuclear o sub-producto de este según definido por la Ley de Energía Atómica del 1954, según enmendada, 42 U.S.C. 2011 et seq.
- (e) Materiales sujetos a las técnicas de minería en el sitio los cuales no han sido removidos del suelo como parte del proceso de extracción.
- (f) Licores de pulpa (esto es, licor madre) que son reclamados en los hornos de recuperación de licor de pulpa y que luego son reusados en el proceso de extracción de pulpa, a menos que sean acumulados especulativamente como se define en la Regla 102 (definición de Desperdicio Sólido) de este reglamento.

- (g) Acido sulfúrico usado utilizado para producir ácido sulfúrico vírgen, a menos que sea acumulado especulativamente según se define en la Regla 102 (definición de Desperdicio Sólido) de este reglamento.

Esta regla es equivalente al 40 CFR Sección 261.4 (a).

Se enmienda la Regla 102 (Definición de Desperdicio Peligroso) para que en lo sucesivo lea como sigue:

Regla 102 Definición de Desperdicio Sólido Peligroso

- (a) Un desperdicio sólido, como se define en la Regla 102 (definición de desperdicio sólido II), es un desperdicio peligroso si:

- (1) No esta excluido de reglamentación como desperdicio peligroso, bajo el inciso (e) de esta definición; y

- (2) Cumple con cualquiera de los siguientes criterios:

- (i) Posee cualquiera de las características de desperdicio peligroso identificada en la Regla 604.

- (ii) Esta anotado en la Regla 607 y no ha sido excluido de las listas de la Regla 607 bajo las Reglas 208 B y 208 G de este reglamento.

(iii) Es una mezcla de un desperdicio sólido con un desperdicio peligroso anotado en la Regla 607 solamente porque exhibe una o más características de desperdicio peligroso identificados en la Regla 604, a menos que la mezcla resultante no exhiba ninguna de las características de desperdicio peligroso identificados en la Regla 604.

(iv) Es una mezcla de desperdicio sólido y uno o más desperdicios peligrosos anotados en la regla 607 y no ha sido excluido de este párrafo bajo las Regla 208 B y 208 G de este reglamento; sin embargo, las siguientes mezclas de desperdicios sólidos y desperdicios peligrosos anotadas en la Regla 607 no son desperdicios peligrosos (excepto cuando se aplique el párrafo (a) (2) (i) & (ii) de esta definición) si el generador puede demostrar que la mezcla consiste de descarga de aguas usadas lo cual esta sujeto a reglamentación bajo las Sección 402 o Sección 307 (b) de la Ley de Agua Limpia (incluyendo aguas usadas en facilidades que han eliminado la descarga de aguas usadas) y;

(A) Uno o más de los siguientes solventes usados anotados en la Regla 607 B - tetracloruro de carbono, tetracloroetileno, tricloroetileno - provisto que el uso máximo total por semana de estos solventes (otros que la cantidad que puede demostrarse que no es decargada a las aguas usadas) dividido por el flujo promedio semanal de las aguas

usadas hacia las áreas de proceso de los sistemas de tratamiento o de pretratamientos de aguas usadas de la facilidad no excede 1 ppm; o

(B) Uno o más de los siguientes solventes usados anotados en la Regla 607 B - cloruro de metileno, 1,1,1-tricloroetano, clorobenceno, o-diclorobenceno, cresoles, ácido cresílico, nitrobenzeno, tolueno, metil etil centeno disulfito de carbono, isobutanol piridina, solventes usados de cloro-fluorocarbono - provisto que el uso máximo total por semana de estos solventes (otro que la cantidad que puede demostrarse que no es descargada a las aguas usadas) dividido por el flujo promedio semanal de las aguas usadas hacia las áreas de proceso de los sistemas de tratamiento o pretratamiento de aguas usadas de la facilidad no excede 25 ppm; o

(C) Uno de los siguientes desperdicios anotados en la Regla 607 C - el cieno de la limpieza del empaquetamiento del intercambiado de calor proveniente de la industria de refinación de petróleo. (APA Desperdicio Peligroso Num K050); o

(D) Un producto químico comercial descargado, o químico intermedio anotado en la Regla 607 D, proveniente de la pérdida mínima de estos materiales de operaciones manufactureros en los cuales estos materiales son utilizados como materia prima o son producidos en el proceso de manufactura. Para propósitos de este subpárrafo, las pérdidas "mínimas" incluyen aquellas de operaciones normales de manejo de material (ej. derrames de la descarga o transferencia de materiales de cubos u otros envases, gotereo de los tubos, válvulas u otros aparatos utilizados para transferir materiales); derrames menores de equipo de proceso, tanques de almacenamiento o envases; derrames de los sellos y empaques de bomba de mantenimiento de pozos; evacuaciones de muestra; descargas de aparatos de relieve; descargas de duchas de seguridad, enjuague y limpieza de equipo de seguridad personal; y las aguas de lavado de los envases vacíos o de los envases que quedaran vacíos por ese lavado; o

(E) El agua usada producto de las operaciones de laboratorio que contienen desperdicios tóxicos (T) anotado en la Regla 607, provisto que el flujo promedio anual de agua usada de laboratorio no excede 1% del flujo total de agua usada hacia las áreas de proceso

del sistema de tratamiento o pretratamiento de las aguas usadas, o provisto el desperdicio, que la concentración promedio anual combinada no excede 1 ppm en las áreas de proceso de la facilidad de tratamiento o pre-tratamiento de las aguas usadas de la facilidad. Los desperdicios tóxicos (T) utilizados en laboratorios que se ha demostrado que no han sido descargados en las aguas usadas no están incluidos en este cálculo.

- (b) Un desperdicio sólido que no ha sido excluido de reglamentación bajo el párrafo (a) (1) de esta definición es un desperdicio peligroso cuando cualquiera de los siguientes eventos ocurre;
- (1) En el caso de un desperdicio anotado en la Regla 607, cuando el desperdicio cumple por primera vez con la descripción para ser anotado en la Regla 607.
 - (2) En el caso de una mezcla de desperdicio sólido y uno o más desperdicios peligrosos anotados, cuando un desperdicio peligroso anotado en la Regla 607 es añadido por primera vez al desperdicio sólido.
 - (3) En el caso de cualquier otro desperdicio (incluyendo una mezcla de desperdicio), cuando el desperdicio exhibe cualquiera de las características identificadas en la Regla 604.

(c) A menos que, y hasta que cumpla con los requisitos del párrafo (d):

(1) Un desperdicio peligroso permanecerá como desperdicio peligroso.

(2) (i) Excepto lo que se provee en el párrafo (c) (2) (ii) de esta definición, cualquier desperdicio sólido generado por el tratamiento, almacenamiento o disposición de un desperdicio peligroso, incluyendo cieno, residuo de derrame, ceniza, control de emisión de polvo, o lixiviación (pero sin incluir la escorrentía por lluvia) es un desperdicio peligroso. (Sin embargo, los materiales que son reclamados de los desperdicios sólidos y que son beneficiosamente utilizados no son desperdicios sólidos y, por lo tanto, no son desperdicios peligrosos bajo esta disposición a menos que el material reclamado sea quemado para recobro de energía o utilizado en una forma que constituya disposición).

(ii) Los siguientes desperdicios sólidos no son peligrosos aunque hayan sido generados por el tratamiento, almacenamiento o disposición de desperdicio peligroso, a menos que exhiban una o más características de desperdicio peligroso:

(A) Cieno del desperdicio del licor generado por la estabilización de cal del licor de salmuera usado proveniente de la industria ciderúrgica. (SIC Codes 331 and 332).

(B) Desperdicio producido por la quema de cualquiera de los materiales exentos de reglamentación por la Regla 606 B (1) (c) (iv), (vi), (vii) u (viii).

(d) Cualquier desperdicio sólido descrito en el párrafo (c) de esta definición no es un desperdicio peligroso si cumple con los siguientes criterios:

(1) En el caso de cualquier desperdicio sólido, no exhibe ninguna de las características de desperdicio peligroso identificado en la Regla 604.

(2) En el caso de un desperdicio que esta anotado bajo la Regla 607, contiene un desperdicio anotado bajo la Regla 607 o es derivado de un desperdicio anotado en la Regla 607, también ha sido excluido del párrafo (c) bajo las Reglas 208 B y 208 G de este reglamento.

Esta regla es equivalente al 40 CFR Sección 261.3.

Se enmienda la Regla 102 (Definición de Desperdicio Peligroso - Parte B) para que en lo sucesivo lea como sigue:

B. Los siguientes desperdicios sólidos no son desperdicios sólidos peligrosos a menos que así sea designado por la Junta:

(1) Desperdicio doméstico, incluyendo aquel desperdicio doméstico que ha sido recogido, transportado, almacenado, tratado, dispuesto, recuperado (por ejemplo, combustible derivado de material desechado) o reusado. "Desperdicio doméstico"

significa cualquier material (incluyendo desperdicio de comida, basura y desperdicio sanitario en pozo séptico) derivado de residencias (incluyendo residencias sencillas y múltiples, hoteles y moteles, "bunkhouses", estaciones de vigilancia, "crew quarters", campamentos, campos de excursión y áreas de recreación de uso diario). Una facilidad de recuperación de recursos que maneja desperdicio sólido municipal no debe ser considerada para tratar, almacenar, disponer o manejar desperdicios peligrosos para propósitos de reglamentación bajo esta regla, si esa facilidad:

(a) Solo recibe y quema:

(i) Desperdicio doméstico (de residencias sencillas y múltiples, hoteles, moteles y otras fuentes residenciales) y

(ii) Desperdicio sólido de fuentes comerciales o industriales que no contienen desperdicio peligroso; y

(b) Esa facilidad no acepta desperdicios peligrosos y el dueño u operador de esa facilidad ha establecido requisitos contractuales u otros procedimientos apropiados de notificación o inspección para asegurar que en esa facilidad no se reciben ni se queman desperdicios peligrosos.

(2) Desperdicios sólidos generados por cualquiera de las siguientes y los cuales son devueltos al suelo como fertilizantes:

- (a) El cultivo y recolección de cosechas agrícolas.
 - (b) La crianza de animales incluyendo el estiercol.
- (3) Terreno de sobrecarga que se utiliza como relleno después de terminadas las operaciones mineras.
 - (4) Desperdicio de ceniza volátil, desperdicio de ceniza sedimentada, escoria y el desperdicio de la chimenea de control de emisión de gases generados principalmente por la combustión de carbón u otros combustibles fósiles.
 - (5) Líquidos de perforación, aguas producidas y otros desperdicios asociados con la exploración, desarrollo o producción de petróleo crudo, gas natural o energía geotérmica.
 - (6) (a) Desperdicios que no pasan la prueba de Toxicidad por el Procedimiento de Extracción (EP Toxicity) por la presencia de cromo o porque están anotados en la Regla 607 debido a la presencia de cromo, que no fallan en la prueba de Toxicidad por el procedimiento de Extracción para cualquier otro constituyente o que no está anotado debido a la presencia de cualquier otro constituyente, y que no pasan la prueba para cualquier otra característica, si el generador del desperdicio o los generadores del desperdicio demuestran que:

- (i) El cromo en el desperdicio es exclusivamente (o casi exclusivamente) cromo trivalente; y
 - (ii) El desperdicio es generado por un proceso industrial que usa cromo trivalente exclusivamente (o casi exclusivamente) y que el proceso no genera cromo hexavalente; y
 - (iii) El desperdicio es frecuente y típicamente manejado en ambientes no oxidantes.
- (b) Desperdicios específicos que cumplen con las normas establecidas en los párrafos B (6) (a) (i), (ii) y (iii) (mientras pasen la prueba de Toxicidad por el Procedimiento de Extracción y que pasen la prueba para cualquier otra característica) son:
- (i) Franjas de cromo (azul) generadas por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; "hair save/chrome tan/retan/wet finish"; "retan/wet finish"; "no beamhouse"; "through-the-blue"; and "shearling".
 - (ii) Virutas de cromo (azul) generadas por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; "hair save/chrome tan/retan/wet finish"; "retan/wet finish"; no beamhouse", "through-the-blue"; and "shearling".

- (iii) Polvo del raspado de cuero generado por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; "hair save/chrome tan/retan/wet finish"; "retan/wet finish"; "no beamhouse"; "through-the-blue".
- (iv) Filtración de las aguas de albañal generadas por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; "hair save/chrome tan/retan/wet finish"; "retan/wet finish"; "no beamhouse", "through-the-blue"; and shearling.
- (v) Lodos del tratamiento de aguas usadas generadas por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; hair save/chrome tan/retan/wet finish"; "retan/wet finish"; "no beamhouse"; "through-the-blue; and "shearling".
- (vi) Lodos del tratamiento de aguas usadas generadas por las siguientes subcategorías de la industria de curtido y acabado de cuero: "hair pulp/chrome tan/retan/wet finish"; hair save/chrome tan/retan/wet finish"; and "through-the-blue".

- (vii) Desperdicios del cuero desechado de la industria de curtido de cuero, la industria manufacturera de zapatos y la industria manufacturera de otros productos de cuero.
- (viii) Lodos generados por el tratamiento de las aguas usadas de la producción del pigmento Oxido de Titano (TiO_2) usando vetas de cromo por el proceso de cloruro.
- (7) Desperdicio sólido generado por la extracción "beneficiation" y procesamiento de minerales (incluyendo carbón), incluyendo roca fosfatada y la sobrecarga de la minería de uranio.
- (8) Polvo del horno de cemento.
- (9) Desperdicio sólido que consiste en madera desechada o producto de madera que no pasan la prueba de Toxicidad por el Procedimiento la Extracción (EP Toxicity) y que no es un desperdicio peligroso por cualquier otra razón si el desperdicio es generado por personas que utilizan la madera tratada con arsénico y productos de madera para el uso final de estos materiales.

Esta regla es equivalente al 40 CFR Sección 261.4 (b).

Se enmienda la Parte VI para añadir lo siguiente como la Regla 606 D:

Regla 606 D Desperdicios peligrosos que están exentos de cierta reglamentación. Un desperdicio peligroso que es generado en un tanque de almacenamiento de un producto o material crudo, en un vehículo de transporte o embarcación de un producto o material crudo, de una tubería, o en una unidad de un proceso de manufactura o en otra unidad asociada de manufactura que trata desperdicios, no está sujeto a la reglamentación según las Partes V, VII, VIII-I, VIII-II y IX de este Reglamento a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8) mientras exista la unidad en la que fue generado, a menos que la unidad sea un embalse superficial, o a menos que el desperdicio peligroso permanezca en la unidad por más de 90 días luego de que la unidad haya cesado la operación para la manufactura, almacenamiento o transportación de un producto o material crudo.

Esta regla es equivalente al 40 CFR Sección 261.4 (c).

Se enmienda la Parte VI para añadir lo siguiente como la Regla 606 E:

Regla 606 E Muestras

1. Excepto lo que se provee en el párrafo E (2) de esta regla, una muestra de desperdicio sólido o una muestra de agua, tierra o aire que es tomada únicamente con el propósito de analizarla para determinar sus características o composición no está sujeta a los requisitos de las Partes V, VII, VIII-I, VIII-II o XI de este Reglamento o a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8), cuando:

- (a) La muestra sea transportada a un laboratorio para propósitos de análisis; o
 - (b) La muestra sea transportada nuevamente al colector de muestras luego del análisis; o
 - (c) La muestra es almacenada en el colector de muestras antes de transportarla al laboratorio para análisis; o
 - (d) La muestra es almacenada en un laboratorio antes del análisis; o
 - (e) La muestra es almacenada en el laboratorio después del análisis pero antes de regresarla al colector de muestras; o
 - (f) La muestra es almacenada temporariamente en el laboratorio después del análisis para un propósito en específico (por ejemplo: hasta la conclusión de un caso en corte o una acción legal donde un análisis posterior de la muestra puede ser necesario).
- (2) Para cualificar para la excepción de los párrafos E
- (1) (a) y (b) de esta regla, un recogedor de muestras que las envíe a un laboratorio y éste se las devuelva al recogedor de muestras debe:
 - (a) Cumplir con el Departamento de Transportación Federal ("DOT"), el Servicio Postal Federal ("USPS") o cualquier otro requisito aplicable de embarque; o

(b) Cumplir con los siguientes requisitos si el recogedor de muestras determina que los requisitos de DOT, USPS u otro requisito de embarque no aplica al embarque de la muestra.

(i) Asegurarse que la siguiente información acompaña la muestra:

(A) El nombre del recogedor de la muestra, dirección postal y el número de teléfono;

(B) El nombre del laboratorio, dirección postal y el número de teléfono;

(C) Cantidad de la muestra;

(D) Fecha del embarque; y

(E) Una descripción de la muestra

(ii) Empacar la muestra para que no goterée, se derrame ni se evapore de su envase.

(3) Esta excepción no aplica si el laboratorio determina que el desperdicio es peligroso, pero el laboratorio no cumple con ninguna de las condiciones establecidas en el párrafo E (1) de esta regla.

Esta regla es equivalente al 40 CFR Sección 261.4 (d).

Se enmienda la Regla 606 A para que en lo sucesivo lea como sigue:

Regla 606 A Requisitos especiales para desperdicios peligrosos generados por generadores de pequeñas cantidades condicionalmente exentos.

1. Un generador es un generador de pequeñas cantidades condicionalmente exento en un mes calendario si genera no más de 100 kilogramos de desperdicio peligroso en ese mes.
2. Excepto para aquellos desperdicios identificados en los párrafos (5), (6), (7) y (10) de esta regla 606, los desperdicios peligrosos de un generador de pequeñas cantidades condicionalmente exento no esta sujeto a la reglamentación bajo las Partes V, VII, VIII-I, VIII-II, IX-I y XI de este reglamento, ni a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8) si el generador cumple con los requisitos establecidos en los párrafos (6), (7) y (10) de esta regla 606 A.
3. Desperdicio peligroso que no este sujeto a reglamentación o que este sujeto solo a las Reglas 702 B, 702 C, 505 A y 503 A, no esta incluido en las determinaciones de cantidad de esta parte, y de las Partes V, VII, VIII-I, VIII-II, IX-I y XI y no esta sujeto a ninguno de los requisitos de esas partes. Desperdicio peligroso que este sujeto a los requisitos de las

Reglas 606 B (2) y (3) y de las Reglas 1103, 1104 y 1106 esta incluido en la determinación de cantidad de esta parte y esta sujeto a los requisitos de las Partes V, VII, VIII-I, VIII-II, IX-I y XI de este reglamento.

4. Para determinar la cantidad de desperdicios peligrosos generados, un generador no necesita incluir:
 - a. Los desperdicios peligrosos cuando estos son removidos de su lugar de almacenaje dentro de la facilidad; o
 - b. Los desperdicios peligrosos producidos por el tratamiento en la facilidad (incluyendo reclamación) de sus desperdicios peligrosos, siempre y cuando el desperdicio peligroso tratado fue contado en una ocasión; o
 - c. Materiales usados que son generados, reclamados y subsiguientemente reusados en la facilidad, siempre y cuando tales materiales usados sean contados en una ocasión.
5. Si un generador genera desperdicios severamente peligrosos en un mes calendario en cantidades mayores que las establecidas más adelante, todas las cantidades de esos desperdicios severamente peligrosos están sujetas a toda la reglamentación las Partes V, VII, VIII-I, VIII-II, IX-I y XI de este reglamento y bajo los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8):

- a. Un total de un (1) kilogramo de desperdicio severamente peligroso anotado en las Reglas 607 B, 607 C & 607 D (5).
 - b. Un total de cien (100) kilogramos de cualquier residuo o suelo contaminado, desperdicio u otros desechos contaminados que resulten de la limpieza de un derrame, en o sobre el terreno o el agua, de cualquier desperdicio severamente peligroso anotado en las Reglas 607 B, 607 C & 607 D (5).
6. Para que los desperdicios peligrosos severamente peligroso generados en cantidades iguales o menores que aquellas establecidas en los incisos (5) (a) & (5) (b) de esta regla 606 A, sean excluidos de toda la reglamentación bajo esta regla 606 A, el generador debe de cumplir con los siguientes requisitos:
- a. Regla 702 B de este reglamento;
 - b. El generador puede acumular desperdicios severamente peligrosos en su facilidad. Si acumula en cualquier momento desperdicios peligrosos severos en cantidades que rebasen aquellas establecidas en los incisos (5) (a) o (5) (b) de esta regla 606 A, todos esos desperdicios acumulados quedan sujetos a reglamentación bajo las Partes V, VII, VIII-I, VIII-II, IX-I y XI de este reglamento y a los requisitos aplicables de notificación

establecidos en la Sección 3010 de RCRA (Anejo C-8). El tiempo de acumulación permitido para desperdicios en la facilidad bajo la Regla 704 D (4) comienza cuando el desperdicio acumulado excede el nivel de exclusión aplicable;

c. Un generador de pequeñas cantidades condicionalmente exento puede ya sea tratar o disponer de sus desperdicios severamente peligrosos en su facilidad, o asegurar el embarque a una facilidad de almacenamiento, tratamiento o disposición fuera de su facilidad, cualquiera de estas que esté:

(1) Con un permiso aprobado bajo la Parte IX-I de este reglamento;

(2) En estatus interino bajo las Partes VIII-I y IX-I de este reglamento;

(3) Autorizada a manejar desperdicios peligrosos por un estado que tiene un programa de desperdicios peligrosos aprobado bajo el 40 CFR Parte 271; o

(4) Una facilidad que:

(A) Use o reuse beneficiosamente o legítimamente recicle o reclame su desperdicio; o

(B) Trate su desperdicio antes de usarlo o reusarlo beneficiosamente o legítimamente reciclarlo o reclamarlo.

7. Para que los desperdicios peligrosos generados por un generador de pequeñas cantidades condicionalmente exento en cantidades menores de 100 kilogramos de desperdicios peligrosos durante un mes calendario sean excluidos de toda reglamentación bajo esta regla 606 A, el generador debe cumplir con los siguientes requisitos:

a. Regla 702 B de este reglamento;

b. El generador de pequeñas cantidades condicionalmente exento puede acumular desperdicios peligrosos en su facilidad. Si acumula en cualquier momento más de un total de 1,000 kilogramos de sus desperdicios peligrosos, todos esos desperdicios acumulados quedan sujetos a reglamentación bajo los requisitos especiales de las Partes V y VII de este reglamento aplicable a generadores entre 100 y 1,000 kilogramos de desperdicios peligrosos en un mes calendario así como a los requisitos de las Partes VII, VIII-I, VIII-II, IX-I y XI de este reglamento y a los requisitos aplicables de notificación establecidos en la Sección 3010 de RCRA (Anejo C-8). El plazo de tiempo permitido bajo la Regla 704 D (4) para la acumulación de desperdicios en la facilidad comienza, para un generador de pequeñas cantidades condicionalmente exento, cuando los desperdicios acumulados exceden la cantidad de 1,000 kilogramos;

c. Un generador de pequeñas cantidades condicionalmente exento puede ya sea tratar o disponer de sus desperdicios peligrosos en su facilidad, o asegurar el embarque a una facilidad de almacenamiento, tratamiento o disposición fuera de su facilidad, cualquiera de estas que este:

(1) Con un permiso aprobado bajo la Parte IX-I de este reglamento;

(2) En estatus interino bajo las partes VIII-I y IX-I de este reglamento;

(3) Autorizado a manejar desperdicios peligrosos por un Estado con un programa de manejo de desperdicios peligrosos aprobado bajo el 40 CFR Parte 271; o

(4) Una facilidad que:

(A) Use o reuse benefisiosamente o legítimamente recicle o reclame su desperdicio; o

(B) Trate su desperdicio antes de usarlo o reusarlo beneficiosamente o legítimamente reciclarlo o reclamarlo.

8. Desperdicio peligroso sujeto a los requisitos reducidos de esta regla 606 A podrá ser mezclado con un desperdicio no-peligroso y permanecerá sujeto a estos requisitos reducidos aún cuando la mezcla resultante exceda las limitaciones de cantidad identificadas en esta regla 606 A, a

menos que la mezcla cumpla con cualquiera de las características de desperdicios peligrosos identificadas en la Regla 604 de este reglamento.

9. Si cualquier persona mezcla un desperdicio sólido con un desperdicio peligroso que excede la cantidad del nivel de exclusión de esta Regla 606 A, la mezcla esta sujeta a toda la reglamentación.
10. Si los desperdicios de un generador de pequeñas cantidades condicionalmente exento se mezclan con aceite usado, la mezcla esta sujeta a la Regla 1105 de este reglamento si se va a quemar para recobro de energía. Cualquier material producido de esa mezcla por medio de procesamiento, mezclado u otro tratamiento esta también reglamentado si va a ser quemado para recobro de energía.

Esta regla es equivalente al 40 CFR Sección 261.5.

Se enmienda la Regla 606 B para que en lo sucesivo lea como sigue:

Regla 606 B Requisitos para materiales reciclables.

Regla 606 B 1. a. Desperdicios peligrosos que son reciclados estan sujetos a los requisitos para generadores, transportadores y facilidades de almacenamiento descritos en los incisos (2) y (3) de esta regla 606 B excepto para los materiales anotados en los incisos (1) (b) y (1) (c) de esta regla 606 B. Los desperdicios peligrosos que son reciclados se conocen como "materiales reciclables."

Hex- arous waste no	Chemical abstracts no	Substance
U225	75-25-2	Bromoforn
U030	101-55-2	4-Bromophenyl phenyl ether
U128	87-86-2	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (l)
U159	76-83-3	2-Butanone (l,T)
U180	1336-23-4	2-Butanone peroxide (R,T)
U053	4176-30-3	2-Butene
U074	764-41-0	2-Butene, 1,4-dichloro- (l,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxymethyl)-2,3,5,7a-tetrahydro-1-pyrimidin-1-yl ester, 21S-[alpha(Z),7(2S,3R)-7alpha]]-
U031	71-36-3	n-Butyl alcohol (l)
U136	75-50-5	Calcodylic acid
U032	13765-19-0	Calcium chromate
U238	51-79-6	Carbamic acid, ethyl ester
U176	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U067	79-44-7	Carbamic chloride, dimethyl-
U114	111-54-6	Carbamodithioic acid, 1,2-ethanedithioic-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl) ester
U215	6532-73-9	Carbonic acid, diethanol(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (l,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-2	Chlorambucil
U036	12789-03-6	Chlorane
U026	494-03-1	Chloromaphazine
U037	106-90-7	Chloroacetylene
U039	59-50-7	p-Chloro-m-cresol
U041	106-89-8	1-Chloro-2,3-epoxypropene
U042	110-76-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U045	107-30-2	Chloromethyl methyl ether
U047	81-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U072	13765-19-0	Chromic acid, calcium salt
U050	218-01-9	Chrysene
U051	8021-39-4	Cresosote
U052	1319-77-3	Cresols (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	86-82-6	Lumene (l)
U246	506-68-3	Cyanogen bromide
U197	106-51-4	2,5-Cyclohexadiene-1, 4-dione
U056	110-82-7	Cyclohexane (l)
U057	106-94-1	Cyclohexanone (l)
U190	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Dalate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenz[a,l]pyrene
U066	86-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (l,T)
U075	75-71-8	Dichlorodifluoromethane
U076	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-1	Dichloroethyl ether
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U240	94-75-7	2,4-Dichlorophenoxyacetic acid, salts and esters
U083	78-87-5	1,2-Dichloropropane
U084	542-75-6	1,3-Dichloropropane
U085	1464-53-5	1,2,3,4-Diepoxybutane (l,T)
U106	123-91-1	1,4-Diethyleneoxide
U086	1615-80-1	N,N-Diethylhydrazine
U067	3288-56-2	O,O-Diethyl-S-methyl-dithiophosphate
U088	84-86-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U090	94-58-6	Dihydrostilrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (l)
U093	80-11-7	Dimethylaminooxobenzene
U094	57-87-6	7,12-Dimethylbenz[a]anthracene
U095	119-83-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha, alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene

Hazardous waste No	Chemical abstracts No	Substance
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	82-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-(9H-fluoren-2-yl)-
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead salt
U214	563-66-8	Acetic acid, thallium (1+) salt
U232	93-75-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Aniline
U012	62-53-3	Aniline (I,T)
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	60-07-7	Azino(2',3':4')pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[(1-aminocarbonyloxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-
U157	50-49-5	Benz[1]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	3,4-Benzazepine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-diethyl-2-propenyl)-
U018	56-55-3	Benz[a]anthracene
U084	57-87-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl)-
U049	3185-93-3	Benzenamine, 4-chloro-2-methyl-
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U156	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-6	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene
U038	510-15-6	Benzenesulfonic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenyl-
U035	305-09-3	Benzenesulfonic acid, 4-[bis(2-chloroethyl)amino]-
U037	106-90-7	Benzene, chloro-
U221	26376-45-6	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-68-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	841-79-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-6	Benzene, 1,1'-(2,2-dichloroethyldiene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-82-5	Benzene, 1,3-diacyanatomethyl- (R,T)
U238	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-9	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-62-6	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro- (I,T)
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-08-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-84-3	Benzene, 1,2,4,5-tetrachloro-
U081	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethyldiene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethyldiene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)- (C,R,T)
U234	98-35-4	Benzene, 1,3,5-trinitro- (R,T)
U021	92-87-6	Benzidine
U202	81-07-2	1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts
U203	94-58-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-8	Benzof[rs]pentaphene
U022	50-32-8	Benzof[a]pyrene
U197	108-51-4	p-Benzquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1484-63-6	2,2'-Bisoxane (I,T)
U021	82-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	118-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	118-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U027	39636-32-9	Bis(2-chloroisopropyl) ether
U024	111-91-1	Bis(2-chloromethoxy) ethane
U028	117-81-7	Bis(2-ethylhexyl) phthalate

Hazardous Waste No.	Substance	
U150	Mephallen	U181 5-Nitro-2-toluene
U151	Mercury	U193 1,2-Dichloroethane, 2,2-dichloro
U152	Methacrylonitrile (I,T)	U056 2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloroethylamino)-tetrahydro-, 2-oxide
U092	Methanamine, N-methyl- (I)	[U056 corrected by 51 FR 28297, August 6, 1986]
U029	Methane, bromo-	U115 Oxirane (I,T)
U045	Methane, chloro- (I,T)	U041 Oxirane, 2-chloromethyl-
U046	Methane, chloromethoxy-	U182 Paraldehyde
U066	Methane, dibromo-	U183 Pentachlorobenzene
U086	Methane, dichloro-	U184 Pentachloroethane
U075	Methane, dichlorodifluoro-	U185 Pentachloronitrobenzene
U138	Methane, iodo-	See FO27 Pentachlorophenol
U119	Methanesulfonic acid, ethyl ester	U186 1,3-Pentadiene (I)
U211	Methane, tetrachloro-	U187 Phenacetin
U121	Methane, trichlorofluoro-	U188 Phenol
U153	Methanethiol (I,T)	U048 Phenol, 2-chloro-
U225	Methane, tribromo-	U039 Phenol, 4-chloro-3-methyl-
U044	Methane, trichloro-	U061 Phenol, 2,4-dichloro-
U121	[Deleted by 51 FR 28297, August 6, 1986]	U082 Phenol, 2,6-dichloro-
U123	Methanolic acid (C,T)	U101 Phenol, 2,4-dimethyl-
U036	4,7-Methanondan, 1,2,4,5,6,7,8,8-octa-chloro-3a,4,7,8-tetrahydro-	U170 Phenol, 4-nitro-
U154	Methanol (I)	See FO27 Phenol, pentachloro-
U155	Methapyrene	Do Phenol, 2,3,4,6-tetrachloro-
U247	Methoxychlor	Do Phenol, 2,4,6-trichloro-
U154	Methyl alcohol (I)	U137 1,10-(1,2-Phenylene)pyrene
U029	Methyl bromide	[U137 corrected by 51 FR 28297, August 6, 1986]
U166	1-Methylbutadiene (I)	U145 Phosphoric acid, lead salt
U045	Methyl chloride (I,T)	[U145 corrected by 51 FR 28297, August 6, 1986]
U156	Methyl chlorocarbonate (I,T)	U087 Phosphorodithioic acid, O,O-diethyl-, S-methyl-ester
U226	Methylchloroform	[U087 corrected by 51 FR 28297, August 6, 1986]
U157	3-Methylcholanthrene	U189 Phosphorus sulfide (R)
U158	4,4'-Methylenebis(2-chloroaniline)	[U189 corrected by 51 FR 28297, August 6, 1986]
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	U190 Phthalic anhydride
U086	Methylene bromide	U191 2-Picoline
U060	Methylene chloride	U192 Propanamide
U122	Methylene oxide	U194 1-Propanamine (I,T)
U159	Methyl ethyl ketone (I,T)	U110 1-Propanamine, N-propyl- (I)
U160	Methyl ethyl ketone peroxide (R,T)	U066 Propane, 1,2-dibromo-3-chloro-
U138	Methyl iodide	U149 Propanedinitrile
U161	Methyl isobutyl ketone (I)	U171 Propane, 2-nitro- (I, T)
U162	Methyl methacrylate (I,T)	[U171 amended by 51 FR 6541, February 25, 1986]
U163	N-Methyl-N-nitro-N-nitrosoguanidine	U027 Propane, 2,2-dibis(2-chloro-
U161	4-Methyl-2-pentanone (I)	U193 1,3-Propane sulfone
U164	Methylthiourea	U235 1-Propanol, 2,3-dibromo-, phosphate (3:1)
U010	Miconazole C	U126 1-Propanol, 2,3-epoxy-
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyloxy)-7,8,9,10-tetrahydro-5,8,11-trihydroxy-1-methoxy-	U140 1-Propanol, 2-methyl- (I,T)
U165	Naphthalene	U002 2-Propanone (I)
U047	Naphthalene, 2-chloro-	U007 2-Propanamide
U186	1,4-Naphthalenedione	U084 Propane, 1,3-dichloro-
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-di-methyl-(1,1'-biphenyl)-4,4'-diyl)]-bis [azo]bis[5-amino-4-hydroxy-, tetrasodium "3"]	U243 1-Propane, 1,1,2,3,3,3-hexachloro-
U186	1,4-Naphthoquinone	U009 2-Propenenitrile
	[U186 corrected by 51 FR 28297, August 6, 1986]	U152 2-Propenenitrile, 2-methyl- (I,T)
U167	1-Naphthylamine	U006 2-Propenoic acid (I)
U168	2-Naphthylamine	U113 2-Propenoic acid, ethyl ester (I)
U167	alpha-Naphthylamine	U116 2-Propenoic acid, 2-methyl-, ethyl ester
U188	alpha-Naphthylamine	U162 2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U026	2-Naphthylamine, N,N-bis(2-chloroethyl)-	See FO27 Propionic acid, 2-(2,4,5-trichlorophenoxy)-
	[U026 corrected by 51 FR 28297, August 6, 1986]	U194 n-Propylamine (I,T)
U189	Nitrobenzene (I,T)	U083 Propylene dichloride
U170	Nitroethanol	U185 Pyridine, 2-[(2-dimethylamino)ethyl]-2-phenylamino-
U171	2-Nitropropane (I, T)	[U185 corrected by 51 FR 28297, August 6, 1986]
	[U171 amended by 51 FR 6541, February 25, 1986]	U179 Pyridine, hexahydro-N-nitroso-
U172	N-Nitrosodi-n-butylamine	U191 Pyridine, 2-methyl-
U173	N-Nitrosodiethanolamine	U184 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U174	N-Nitrosodiethylamine	U180 Pyrrole, tetrahydro-N-nitroso-
U111	N-Nitrosodi-n-propylamine	U200 Reserpine
	[U111 corrected by 51 FR 28297, August 6, 1986]	U201 Resorcinol
U176	N-Nitroso-N-ethylurea	U202 Saccharin and salts
U177	N-Nitroso-N-methylurea	U203 Sefiro
U178	N-Nitroso-N-methylurethane	U204 Selenious acid
U179	N-Nitrosopiperidine	U204 Selenium dioxide
U180	N-Nitrosopyrrolidine	U205 Selenium disulfide (R,T)
		U015 L-Serine, diazoacetate (ester)
		See FO27 Serine
U089	4,4'-Stilbenediol, alpha, alpha'-diethyl-	U089 Streptozotocin
U206	Sulfur dioxide	U136 Sulfur hydride
U103	Sulfuric acid, dimethyl ester	U103 Sulfuric acid, dimethyl ester
U189	Sulfur phosphide (R)	U189 Sulfur phosphide (R)
U205	Sulfur selenide (R,T)	U205 Sulfur selenide (R,T)
See FO27	2,4,5-T	See FO27 2,4,5-T
U207	1,2,4,5-Tetrachlorobenzene	U207 1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2-Tetrachloroethane	U208 1,1,1,2-Tetrachloroethane
U209	1,1,2,2-Tetrachloroethane	U209 1,1,2,2-Tetrachloroethane
U210	Tetrachlorobenzene	U210 Tetrachlorobenzene
See FO27	2,3,4,6-Tetrachlorophenol	See FO27 2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)	U213 Tetrahydrofuran (I)
U214	Thallium(I) acetate	U214 Thallium(I) acetate
U215	Thallium(I) carbonate	U215 Thallium(I) carbonate
U216	Thallium(I) chloride	U216 Thallium(I) chloride
U217	Thallium(I) nitrate	U217 Thallium(I) nitrate
U218	Thioacetamide	U218 Thioacetamide
U153	Thiomethanol (I,T)	U153 Thiomethanol (I,T)
U219	Thiourea	U219 Thiourea
U244	Thiram	U244 Thiram
U220	Toluene	U220 Toluene
U221	Toluenediamine	U221 Toluenediamine
U223	Toluene diisocyanate (R,T)	U223 Toluene diisocyanate (R,T)
U222	p-Toluidine hydrochloride	U222 p-Toluidine hydrochloride
	[U222 corrected by 51 FR 28297, August 6, 1986]	
U328	p-Toluidine	U328 p-Toluidine
U353	p-Toluidine	U353 p-Toluidine
	[U328 and U353 added by 50 FR 42942, October 23, 1985]	
U011	1H-1,2,4-Triazol-3-amine	U011 1H-1,2,4-Triazol-3-amine
		[Editor's note: EPA corrected U232 2,4,5-Trichloroacetic acid to read "2,4,5-Trichloroacetic acid, salts and esters" (51 FR 28297). However, this hazardous substance was never added to 261.33(f).]
U226	1,1,1-Trichloroethane	U226 1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane	U227 1,1,2-Trichloroethane
U228	Trichloroethene	U228 Trichloroethene
U228	Trichloroethylene	U228 Trichloroethylene
U121	Trichloromonoethoxyethane	U121 Trichloromonoethoxyethane
See FO27	2,4,5-Trichlorophenol	See FO27 2,4,5-Trichlorophenol
U231	2,4,5-Trichlorophenol	U231 2,4,5-Trichlorophenol
Do	2,4,5-Trichlorophenoxyacetic acid	Do 2,4,5-Trichlorophenoxyacetic acid
		[Editor's note: EPA corrected U233 2,4,5-Trichlorophenoxypropionic acid to read "2,4,5-Trichlorophenoxypropionic acid, salts and esters" (51 FR 28297). However, this hazardous substance was never added to 261.33(f).]
U234	sym-Trinitrobenzene (R,T)	U234 sym-Trinitrobenzene (R,T)
U182	1,35-Trioxane, 2,4,6-trimethyl-	U182 1,35-Trioxane, 2,4,6-trimethyl-
	[U182 corrected by 51 FR 28297, August 6, 1986]	
U235	Tri(2,3-dibromopropyl) phosphate	U235 Tri(2,3-dibromopropyl) phosphate
U236	Trypan blue	U236 Trypan blue
U237	Uracil, 5-[bis(2-chloroethyl)-amino]-	U237 Uracil, 5-[bis(2-chloroethyl)-amino]-
	[U237 corrected by 51 FR 28297, August 6, 1986]	
U237	Uracil mustard	U237 Uracil mustard
U043	Vinyl chloride	U043 Vinyl chloride
U248	Warfarin, when present at concentrations of 0.3% or less.	U248 Warfarin, when present at concentrations of 0.3% or less.
U239	Xylene (I)	U239 Xylene (I)
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyloxy)-methyl ester]	U200 Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyloxy)-methyl ester]
U249	Zinc phosphide, when present at concentrations of 10% or less.	U249 Zinc phosphide, when present at concentrations of 10% or less.
		[U249 added by 49 FR 19923, May 10, 1984]

Hazardous Waste No	Substance				
U239	Benzene, dimethyl- (I,T)	U032	Chronic acid calcium salt	U025	Ethane, 1,1-dicyclo[2-chloro-
U201	1,3-Benzene-dio	U050	Crysene	U184	Ethane, pentachloro-
U127	Benzene, hexachloro-	U051	Cresole	U208	Ethane, 1,1,1,2-tetrachloro-
U056	Benzene, hexachloro- (I)	U052	Cresols	U209	Ethane, 1,1,2,2-tetrachloro-
U186	Benzene, hydroxy-	U053	Cresylic acid	U216	Ethanethioamide
U220	Benzene, methyl-	U054	Crotonaldehyde	U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxy-
U105	Benzene, 1-methyl-2,4-dinitro-	U055	Cumene (I)		phenyl)
	[U105 corrected by 51 FR 28297, Au-	U246	Cyanogen bromide	U227	Ethane, 1,1,2-trichloro-
	gust 6, 1986]	U197	1,4-Cyclohexadienedione	U043	Ethane, chloro-
U106	Benzene, 1-methyl-2,6-dinitro-	U056	Cyclohexane (I)	U042	Ethane, 2-chloroethoxy-
U203	Benzene, 1,2-methylenedioxy-4-allyl-	U057	Cyclohexanone (I)	U078	Ethane, 1,1-dichloro-
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	U079	Ethane, trans-1,2-dichloro-
U090	Benzene, 1,2-methylenedioxy-4-propyl-	U058	Cyclophosphamide	U210	Ethane, 1,1,2,2-tetrachloro-
U055	Benzene, (1-methylethyl)- (I)	U240	2,4-D, salts and esters	U173	Ethanol, 2,2-(nitrosomino)bi-
U169	Benzene, nitro- (I,T)		[U240 corrected by 51 FR 28297, Au-	U004	Ethanone, 1-phenyl-
U185	Benzene, pentachloro-		gust 6, 1986]	U006	Ethanoyl chloride (C,R,T)
U185	Benzene, pentachloronitro-	U059	Daunomycin	U359	2-Ethoxyethanol
	[U185 corrected by 51 FR 28297, Au-	U060	DDC		[U359 added by 51 FR 6541, February 25
	gust 6, 1986]	U061	DDT		1986]
U020	Benzenesulfonic acid chloride (C,R)	U142	Decachlorooctahydro-1,3,4-metheno-2H-	U112	Ethyl acetate (I)
U020	Benzenesulfonyl chloride (C,R)		cyclobuta(c,d)-pentalen-2-one	U113	Ethyl acrylate (I)
U207	Benzene, 1,2,4,5-tetrachloro-	U062	Diallate	U236	Ethyl carbamate (urethan)
U023	Benzene, (trichloromethyl)- (C,R,T)	U133	Diamine (R,T)	U036	Ethyl 4,4'-dichlorobenzilate
U234	Danzene, 1,3,5-trinitro- (R,T)	U221	Diaminotoluene	U114	Ethylenbis(dithiocarbamic acid, salts and
	[U234 corrected and redesignated as	U063	Dibenz(a,h)anthracene		esters
	U0234 by 51 FR 28297, August 6,	U063	1,2,5,6-Dibenzanthracene		[U114 corrected by 51 FR 28297, August 6
	1986]	U064	1,2,7,8-Dibenzopyrene		1986]
		U064	Dibenz(a,i)pyrene	U067	Ethylene dibromide
		U066	1,2-Dibromo-3-chloropropane		[U067 corrected by 51 FR 28297, August 6
		U069	Dibutyl phthalate		1986]
U021	Benzidine	U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	U077	Ethylene dichloride
U202	1,2-Benzisothiazilin-3-one, 1,1-dioxide,	U070	p-Dichlorobenzene	U359	Ethylene glycol monoethyl ether
	salts	U071	m-Dichlorobenzene		[U359 added by 51 FR 6541, February 25,
	[U202 corrected by 51 FR 28297, Au-	U072	p-Dichlorobenzene		1986]
	gust 6, 1986]	U073	3,3'-Dichlorobenzidine	U115	Ethylene oxide (I, T)
		U074	1,4-Dichloro-2-butene (I,T)		[U115 corrected by 51 FR 28297, August 6
U120	Benzo(a,k)fluorene	U075	Dichlorodifluoromethane		1986]
U022	Benzo(a)pyrene	U182	3,5-Dichloro-N-1,1-dimethyl-2-propenyl	U116	Ethylene thioarea
U022	3,4-Benzopyrene		benzamide	U117	Ethyl ether (I)
U197	p-Benzquinone	U080	Dichloro diphenyl dichloroethane	U076	Ethylidene dichloride
U023	Benzotrichloride (C,R,T)	U061	Dichloro diphenyl trichloroethane	U118	Ethyl methacrylate
U050	1,2-Benzphenanthrene	U078	1,1-Dichloroethylene		[U118 corrected by 51 FR 28297, August 6,
U085	2,2-Bioxirane (I,T)	U079	1,2-Dichloroethylene		1986]
U021	(1,1-Biphenyl)-4,4'-diamine	U025	Dichloroethyl ether	U119	Ethyl methanesulfonate
U073	(1,1-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	U081	2,4-Dichloropheno-	U139	Femic dextran
U091	(1,1-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	U082	2,6-Dichloropheno-	U120	Fluoranthene
U095	(1,1-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	U240	2,4-Dichlorophenoxyacetic acid, salts and	U122	Formaldehyde
U024	Bis(2-chloroethoxy) methane		esters	U123	Formic acid (C,T)
U027	Bis(2-chloroisopropyl) ether	U083	1,2-Dichloropropane	U124	Furan (I)
U244	Bis(dimethylthiocarbamoyl) disulfide	U084	1,3-Dichloropropane	U125	2-Furancarboxaldehyde (I)
U028	Bis(2-ethylhexyl) phthalate	U085	1,2,3,4-Diepoxybutane (I,T)	U147	2,5-Furandione
U246	Bromine cyanide	U108	1,4-Diethylene dioxide	U213	Furan, tetrahydro- (I)
U225	Bromotom	U086	N,N-Diethylhydrazine	U126	Furfural (I)
U030	4-Bromophenyl phenyl ether	U087	O,O-Diethyl-S-methyl-dithiophosphate	U124	Furfuran (I)
U126	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	U088	Diethyl phthalate	U206	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitro-
U172	1-Butanamine, N-butyl-N-nitroso-	U089	Diethylstilbestrol		souride)-
U035	Butanoic acid, 4-[(bis(2-chloroethyl)amino)]	U148	1,2-Dihydro-3,6-pyridazinedione	U126	Glycidylaldehyde
	benzene-		[U148 corrected by 51 FR 28297, Au-	U163	Guanidine, N-nitroso-N-methyl-N-nitro-
	[U035 corrected by 51 FR 28297, Au-		gust 6, 1986]		[U163 corrected by 51 FR 28297, August 6,
	gust 6, 1986]	U090	Dihydroazetole		1986]
U031	1-Butanol (I)	U091	3,3'-Dimethoxybenzidine	U127	Hexachlorobenzene
U159	2-Butanone (I,T)	U092	Dimethylamine (I)	U128	Hexachlorobutadiene
U160	2-Butanone peroxide (R,T)	U093	Dimethylaminoazobenzene	U129	Hexachlorocyclohexane (gamma isomer)
U053	2-Butene	U094	7,12-Dimethylbenz(a)anthracene	U130	Hexachlorocyclopentadiene
U074	2-Butene, 1,4-dichloro- (I,T)	U095	3,3'-Dimethylbenzoxime	U131	Hexachloroethane
U031	n-Butyl alcohol (I)	U096	alpha, alpha-Dimethylbenzylhydroperoxide (R)	U132	Hexachlorophane
U136	Cacodylic acid	U097	Dimethylcarbamoyl chloride	U243	Hexachloropropene
U032	Calcium chromate	U098	1,1-Dimethylhydrazine	U133	Hydrazine (R,T)
U238	Carbamic acid, ethyl ester	U099	1,2-Dimethylhydrazine	U086	Hydrazine, 1,2-diethyl-
U178	Carbamic acid, methylnitroso-, ethyl ester	U101	2,4-Dimethylphenol	U098	Hydrazine, 1,1-dimethyl-
U176	Carbamide, N-ethyl-N-nitroso-	U102	Dimethyl phthalate	U099	Hydrazine, 1,2-dimethyl-
U177	Carbamide, N-methyl-N-nitroso-	U103	Dimethyl sulfate	U109	Hydrazine, 1,2-diphenyl-
U219	Carbamide, tho-	U105	2,4-Dinitrotoluene	U134	Hydrofluoric acid (C,T)
U097	Carbamoyl chloride, dimethyl-	U106	2,6-Dinitrotoluene	U134	Hydrogen fluoride (C,T)
U215	Carbonic acid, dithallium(I) salt	U107	Di-n-octyl phthalate	U135	Hydrogen sulfide
U156	Carbonylchloride acid, methyl ester (I,T)	U108	1,4-Dioxane	U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U033	Carbon oxyfluoride (R,T)	U109	1,2-Diphenylhydrazine	U136	Hydroxydimethylarsine oxide
U211	Carbon tetrachloride	U110	Dipropylamine (I)	U116	2-Imidazolidinethione
U033	Carbonyl fluoride (R,T)	U111	Di-n-propylnitrosamine	U137	Indeno[1,2,3-cd]pyrene
U034	Chloral		[U111 corrected by 51 FR 28297, August 6,	U139	Iron dextran
U035	Chlorambucil		1986]	U140	Isobutyl alcohol (I,T)
U036	Chlorane, technical	U001	Ethanol (I)	U141	Isosafrole
U026	Chloraphazine	U174	Ethanamine, N-ethyl-N-nitroso-	U142	Kapone
U037	Chlorobenzene	U067	Ethane, 1,2-dibromo-	U143	Lasiocarpine
U038	4-Chloro-m-cresol	U076	Ethane, 1,1-dichloro-	U144	Lead acetate
U041	1-Chloro-2,3-epoxypropene	U077	Ethane, 1,2-dichloro-	U145	Lead phosphate
U042	2-Chloroethyl vinyl ether	U114	1,2-Ethanediylbis(carbamodithioic acid	U146	Lead subacetate
U044	Chloroform	U131	Ethane, 1,1,1,2,2,2-hexachloro-	U129	Lindane
U046	Chloromethyl methyl ether	U024	Ethane, 1,1'-(methylenedioxy)bis(2-chloro-	U147	Maleic anhydride
U047	beta-Chloronaphthalene	U003	Ethanenitrile (I, T)	U148	Maleic hydrazide
U048	o-Chlorophenol	U117	Ethane, 1,1'-oxybis- (I)	U149	Malononitrile
U049	4-Chloro-o-toluidine, hydrochloride				

(COMETARIO: Para la conveniencia de la comunidad reglamentada, las propiedades peligrosas primarias de estos materiales han sido indicadas por las letras T (Toxicidad), R (Reactividad), I (Inflamabilidad) y C (Corrosividad). La ausencia de una de estas letras indica que el compuesto está anotado únicamente por toxicidad).

Estos desperdicios y sus correspondientes números de peligrosidad asignados por la APA son:

Hazardous Waste No.	Substance
U005	Acetamide, N-9H-fluoren-2-yl-
U112	Acetic acid, ethyl ester (I)
U144	Acetic acid, lead salt
U214	Acetic acid, thallium(I) salt
U002	Acetone (I)
U003	Acetonitrile (I,T)
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride (C,R,T)
U007	Acrylamide
U008	Acrylic acid (I)
U009	Acrylonitrile
U150	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl, L-
U248	1-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less
	[U248 added by 49 FR 19923, May 10, 1984]
U328	2-Amino-1-methylbenzene
U353	4-Amino-1-methylbenzene
	[U328 and U353 added by 50 FR 42942, October 23, 1985]
U011	Ambros
U012	Aniline (I,T)
U014	Auramine
U015	Azaserine
U010	Azirino(2,3:3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-[(aminocarbonyl)oxy(methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-
U157	Benz[<i>j</i>]aceanthrylene, 1,2-dihydro-3-methyl-
U016	Benz[<i>c</i>]acridine
U016	3,4-Benzacridine
U017	Benzal chloride
U018	Benz[<i>a</i>]anthracene
U018	1,2-Benzanthracene
U094	1,2-Benzanthracene, 7,12-dimethyl-
U012	Benzenamine (I,T)
U014	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
U049	Benzenamine, 4-chloro-2-methyl-
U093	Benzenamine, N,N-dimethyl-4-(phenylazo)-
	[U093 corrected by 51 FR 28297, August 6, 1986]
U158	Benzenamine, 4,4'-methylenabis(2-chloro-
U222	Benzenamine, 2-methyl-, hydrochloride
U181	Benzenamine, 2-methyl-5-nitro
U019	Benzene (I,T)
U038	Benzenecarboxylic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester
U030	Benzene, 1-bromo-4-phenoxy-
U037	Benzene, chloro-
U190	1,2-Benzenedicarboxylic acid anhydride
U026	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
U069	1,2-Benzenedicarboxylic acid, dibutyl ester
U068	1,2-Benzenedicarboxylic acid, diethyl ester
U102	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester
U070	Benzene, 1,2-dichloro-
U071	Benzene, 1,3-dichloro-
U072	Benzene, 1,4-dichloro-
U017	Benzene, (dichloromethyl)-
U223	Benzene, 1,3-diacetylenomethyl- (R,T)

Haz waste No	Chemical abstracts No	Substance
P081	55-63-0	1,2,3-Propanetriol, trihydrate (R)
P017	596-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propenedithione
P102	591-08-2	2-Propyn-1-ol
P006	504-24-5	Pyridamine
P075	154-11-5	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts
P111	107-49-3	Pyrophosphoric acid, tetraethyl ester
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P107	1314-95-1	Sroutium sulfide
P108	157-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	157-24-9	Strychnine and salts
P115	10031-59-1	Sulfuric acid, thallium(I) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethylpyrophosphate
P112	508-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium(III) oxide
P114	12039-52-0	Thallium(I) selenite
P115	10031-59-1	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thioanion
P049	541-53-7	Thiomethocarbonic diamide
P014	108-98-5	Thiophene
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-86-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethaneethoxy
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium(V) oxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	81-81-2	Warfarin
P121	557-21-1	Zinc cyanide
P122	1314-84-7	Zinc phosphide (R,T)

¹ CAS Number given for parent compound only

10-31-86

f. Los productos químicos comerciales, químicos intermedios de la manufactura o productos químicos comerciales que no cumplen con las especificaciones a que se refiere en los incisos (a) al (d) de esta regla 607 D, están identificados como desperdicios tóxicos (T), a menos que estén designados de otra forma y están sujetos a la exclusión de generador de pequeñas cantidades definido en la Regla 606 A (1) y (7).

Hazardous waste No	Chemical abstracts No	Substance
P085	152-16-9	Diphosphoramide, octamethyl-
P039	298-04-4	Desulfurion
P049	541-53-7	2,4-Dihydroxyurea
P050	115-29-7	Endosulfan
P068	145-73-3	Endothal
P051	72-20-8	Endrin
P042	51-43-4	Epinephrine
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P087	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	540-19-7	Fluoroacetic acid
P058	62-74-8	Fluoroacetic acid, sodium salt
P065	626-86-4	Formic acid, mercury(2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyltetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P088	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P064	624-83-9	Isocyanic acid, methyl ester
P060	485-73-6	Isodrin
P007	2783-98-4	3(2H)-isoxazoline, 5-(aminomethyl)-
P092	62-38-4	Mercury, acetato-O-phenyl-
P065	626-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methamine, N-methyl-N-nitroso-
P016	542-88-1	Methane, oxybis(chloro-
P112	509-14-0	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepen, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P066	16752-77-5	Methomyl
P067	76-55-8	2-Methylaziridine
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P089	76-86-5	2-Methylacetonitrile
P071	298-00-0	Methyl parathion
P072	85-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl, (T-4)-
P071	54-11-5	Nicotine and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-8	Nitrogen oxide NO
P076	10102-44-0	Nitrogen oxide NO ₂
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P074	557-19-7	Nickel cyanide
P085	152-18-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide
P087	20816-12-0	Osmium tetroxide
P086	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P034	131-88-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	534-52-1	Phenol, 2-methyl-4,6-dinitro- and salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P082	62-38-4	Phenylmercury acetate
P083	103-85-5	Phenylthiourea
P084	298-02-2	Phorate
P085	75-44-5	Phosgene
P086	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[1-(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S[2-(methylamino)-2-oxoethyl] ester
P043	55-81-4	Phosphorofluoric acid, bis(1-methylethyl)- ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-87-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P087	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P110	78-00-2	Plumbane, tetraethyl-
P086	151-50-8	Potassium cyanide
P099	506-81-8	Potassium silver cyanide
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-75-7	Propanenitrile, 3-chloro-
P069	76-86-5	Propanenitrile, 2-hydroxy-2-methyl-

Hazardous waste No.	Substance		
P101	Propanenitrile	P106	Sodium cyanide
P027	Propanenitrile, 3-chloro-	P107	Sroutum sulfide
P069	Propanenitrile, 2-hydroxy-2-methyl-	P108	Strychnidin-10-one, and salts
P081	1,2,3-Propanetriol, trinitrate- (R)	P018	Strychnidin-10-one, 2,3-dimethoxy-
P017	2-Propanone, 1-bromo-	P106	Strychnine and salts
P102	Propargyl alcohol	P115	Sulfuric acid, thallium(I) salt
P003	2-Propenal	P109	Tetraethylthiopyrophosphate
P005	2-Propen-1-ol	P110	Tetraethyl lead
P067	1,2-Propylenimine	P111	Tetraethylpyrophosphate
P102	2-Propyn-1-ol	P112	Tetranitromethane (R)
P006	4-Pyridamine	P062	Tetraphosphoric acid, hexaethyl ester
P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	P113	Thafo oxide
P111	Pyrophosphoric acid, tetraethyl ester	P113	Thallium(I) oxide
P103	Selenourea	P114	Thallium(I) selenide
P104	Silver cyanide	P114	[P114 corrected by 51 FR 28297, August 6, 1986]
P105	Sodium azide	P115	Thallium(I) sulfate
		P045	Thioanox
		P049	Thiomidoacetic acid
		P014	Thiophenol
		P116	Thiosemicarbazide
		P026	Thiourea, (2-chlorophenyl)-
		P072	Thiourea, 1-naphthalenyl-
		P093	Thiourea, phenyl-
		P123	Toxaphene
		P118	Trichloromethanethiol
		P119	Vanadic acid, ammonium salt
		P120	Vanadium pentoxide
		P120	Vanadium(V) oxide
		P001	Warfarin, when present at concentrations greater than 0.5%.
			[P001 amended by 49 FR 19923, May 10, 1984]
		P121	Zinc cyanide
		P122	Zinc phosphide, when present at concentrations greater than 10%.
			[P122 amended by 49 FR 19923, May 10, 1984]

[261.33(e) revised by 51 FR 28297, August 6, 1986]

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P066	16752-77-5	Acetimidic acid, N-[(methylcarbamoyloxy)thio-, methyl ester
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acroton
P070	116-06-3	Aldicarb
P004	309-00-2	Aldrin
P005	107-18-8	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2783-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-alpha-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P010	7778-39-4	Arsenic acid
P012	1327-53-3	Arsenic oxide As ₂ O ₃
P011	1303-26-2	Arsenic oxide As ₂ O ₃
P011	1303-26-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Asine, diethyl
P036	696-28-6	Arsinous dichloride, phenyl-
P054	151-58-4	Azidine
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	61-43-4	1,2-Benzenediol, 4-[(1-hydroxy-2-(methylamino)ethyl)-, (R)-
P046	122-09-8	Benzenesethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P001	181-81-2	2H-1-Benzopyren-3-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium dust
P016	542-68-1	Bis(chloromethyl) ether
P017	696-31-2	Bromoacetone
P018	357-57-3	Brucine
P021	692-01-8	Calcium cyanide
P022	75-15-0	Carbon bisulfide
P022	75-15-0	Carbon disulfide
P085	75-44-5	Carbonic dichloride
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P029	544-92-3	Copper cyanide
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	480-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P034	131-69-5	2-Cyclohexyl-4,6-dimethylphenol
P036	696-28-6	Dichlorophenylamine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-67-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-3	Disopropyl fluorophosphate (DEP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P080	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7,3,6-Dimethanonaphth[2,3b]oxirane, 3,4,5,6,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2alpha,3beta,6beta,6alpha,7beta,7alpha)-
P051	72-20-8	2,7,3,6-Dimethanonaphth[2,3b]oxirane, octahydro-, (1aalpha,2beta,2alpha,3beta,6beta,6alpha,7beta,7alpha)-
P044	60-51-5	Dimethoate
P045	30196-18-4	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylaminocarbonyl) oxime
P046	122-09-8	alpha, alpha-Dimethylphenethylamine
P047	534-52-1	4,6-Dinitro-o-cresol and salts
P048	51-28-5	2,4-Dinitrophenol
P020	66-85-7	Dinoseb

(COMETANRIO: Para conveniencia de la comunidad reglamentada, las propiedades peligrosas primarias de estos materiales han sido indicadas por las letras (T) (Toxicidad) y (R) (Reactividad). La ausencia de una letra indica que el compuesto está anotado únicamente por toxicidad severa).

Estos desperdicios y sus correspondientes números de peligrosidad asignados por la APA son:

Hazardous waste No.	Substance	Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
P023	Acetaldehyde, chloro-	P041	Diethyl-p-nitrophenyl phosphate	P071	Methyl parathion
P027	Acetamide, N-(aminothioxomethyl)-	P040	O,O-Diethyl O-pyrazinyl phosphorothioate	P072	alpha-Naphthylthiourea
P057	Acetamide, 2-fluoro-	P043	Diisopropyl fluorophosphate	P073	Nickel carbonyl
P058	Acetic acid, fluoro-, sodium salt	P044	Dimethoate	P074	Nickel cyanide
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester	P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	P074	Nickel(II) cyanide
P001	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts [P001 amended by 49 FR 18923, May 10, 1984; corrected by 51 FR 28297, August 6, 1986]	P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	P073	Nickel tetracarbonyl
P002	1-Acetyl-2-thiourea	P062	Dimethylnitrosamine	P075	Nicotine and salts
P003	Acrolein	P046	alpha, alpha-Dimethylphenethylamine	P076	Nitric oxide
P070	Aldicarb	P047	4,6-Dinitro-o-cresol and salts	P077	p-Nitroaniline
P004	Aldrin	P034	4,6-Dinitro-o-cyclohexylphenol	P078	Nitrogen dioxide
P005	Allyl alcohol	P048	2,4-Dinitrophenol	P076	Nitrogen(II) oxide
P006	Aluminum phosphide (R, T) [P006 corrected by 51 FR 28297, August 6, 1986]	P020	Dinoseb	P078	Nitrogen(IV) oxide
P007	5-Aminomethyl-3-isoxazole	P085	Diphosphoramide, octamethyl-	P081	Nitroglycerine (R)
P008	4-alpha-Aminopyridine [P008 corrected by 51 FR 28297, August 6, 1986]	P039	Disulfoton	P082	N-Nitrosodimethylamine
P009	Ammonium picrate (R)	P049	2,4-Dinitrobutadiene	P084	N-Nitrosomethylvinylamine
P119	Ammonium vanadate	P109	Dithiopyrophosphoric acid, tetraethyl ester	P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite
P010	Arsenic acid	P050	Endosulfen	P085	Octamethylpyrophosphoramide
P012	Arsenic (III) oxide	P086	Endothal	P087	Osmium oxide
P011	Arsenic (V) oxide	P051	Endrin	P087	Osmium tetroxide
P011	Arsenic pentoxide	P042	Ephedrine	P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P012	Arsenic trioxide	P048	Ethamine, 1,1-dimethyl-2-phenyl-	P089	Parathion
P038	Arsine, diethyl-	P084	Ethamine, N-methyl-N-nitroso-	P034	Phenol, 2-cyclohexyl-4,6-dinitro-
P054	Azidine	P101	Ethyl cyanide	P048	Phenol, 2,4-dinitro-
P013	Benzam cyanide	P054	Ethylamine	P047	Phenol, 2-methyl-4,6-dinitro and salts [P047 corrected by 51 FR 28297, August 6, 1986]
P024	Benzenamine, 4-chloro-	P087	Famphur	P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-
P077	Benzenamine, 4-nitro-	P056	Fluorine	P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P028	Benzene, (chloromethyl)-	P057	Fluoroacetamide	P036	Phenyl dichloroarsine
P042	1,2-Benzenediol, 4-[[1-hydroxy-2-(methylamino)ethyl]-	P058	Fluoroacetic acid, sodium salt	P092	Phenylmercuric acetate
P014	Benzenethiol	P055	Fulmic acid, mercury(II) salt (R,T)	P093	N-Phenylthiourea
P026	Benzyl chloride	P059	Heptachlor	P094	Phorale
P015	Beryllium dust	P061	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,5a,7,8,8a-octahydro-endo,endo-1,4,5,8-dimethanonaphthalene	P095	Phosgene
P016	Bis(chloromethyl) ether	P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,5a,7,8,8a-octahydro-endo,exo-1,4,5,8-dimethanonaphthalene	P096	Phosphine
P017	Bromoacetone	P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,5a,7,8,8a-octahydro-1,4,5,8-endo,exo-dimethanonaphthalene	P041	Phosphonic acid, diethyl p-nitrophenyl ester
P018	Brucine	P060	Hexachloronaphthalene, endo-dimethanonaphthalene [P060 corrected by 51 FR 28297, August 6, 1986]	P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P021	Calcium cyanide	P062	Hexachloronaphthalene, endo-dimethanonaphthalene [P060 corrected by 51 FR 28297, August 6, 1986]	P043	Phosphorofluoric acid, bis(1-methylthio) ester [P043 corrected by 51 FR 28297, August 6, 1986]
P123	Camphene, octachloro-	P062	Hexachloronaphthalene, endo-dimethanonaphthalene	P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester
P103	Carbamimidoseleonic acid	P116	Hydrazinecarbothioamide	P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester [P089 corrected by 51 FR 28297, August 6, 1986]
P022	Carbon disulfide	P068	Hydrazine, methyl-	P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P022	Carbon disulfide	P063	Hydrocyanic acid	P097	Phosphorothioic acid, O,O-dimethyl O-(p-(dimethylamino)-sulfonylphenyl)ester
P095	Carbonyl chloride	P063	Hydrogen cyanide	P110	Plumbane, tetraethyl-
P033	Chlorine cyanide	P096	Hydrogen phosphide	P098	Potassium cyanide
P023	Chloroacetaldehyde	P064	Isocyanic acid, methyl ester	P099	Potassium silver cyanide
P024	p-Chloroaniline	P007	3(2H)-isoxazalone, 5-(aminomethyl)-		
P026	1-(o-Chlorophenyl)thiourea	P092	Mercury, (acetato-O)phenyl-		
P027	3-Chloropropionitrile	P065	Mercury fulminate (R,T)		
P029	Copper cyanides	P016	Methane, dicybis(chloro-		
P030	Cyanides (soluble cyanide salts), not elsewhere specified	P112	Methane, tetrahalo- (R)		
P031	Cyanogen	P118	Methanethiol, trichloro-		
P033	Cyanogen chloride	P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-		
P036	Dichlorophenylarsine	P066	Methomyl		
P037	Dieldrin	P067	2-Methylaziridine		
P038	Diethylarsine	P068	Methyl hydrazine		
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorothioate	P064	Methyl isocyanate		
		P069	2-Methylisocyanate		

(COMENTARIO: La frase producto químico comercial o químico intermedio de la manufactura que tenga el nombre genérico anotado en..." se refiere a aquella sustancia química que haya sido manufacturada o formulada para uso comercial o manufacturero que consiste en el grado comercial puro de dicho químico, cualesquiera grados técnicos de dicho químico que es producido o mercadeado, y toda formulación en la cual dicho químico sea el único ingrediente activo. La frase aludida no se refiere al material, como por ejemplo, el desperdicio de un proceso manufacturero, que contenga cualquiera de las sustancias anotadas en los incisos (e) o (f). Cuando el desperdicio de un proceso manufacturero se considere desperdicio peligroso porque contenga una sustancia anotada en los incisos (e) o (f), ese desperdicio será anotado en las Reglas 607 B o 607 C o será identificado como desperdicio peligroso por las características establecidas en la Regla 604 de este reglamento).

- e. Los productos químicos comerciales, químicos intermedios de la manufactura o productos químicos comerciales que no cumplen con las especificaciones de calidad establecidas o químicos intermedios de la manufactura a que se refiere en los incisos (a) hasta el (d) de esta regla 607 D, son identificados como desperdicios severamente peligrosos (H) y están sujetos a ser la exclusión de pequeñas cantidades definida en la Regla 606 A (5);

- c. Cualquier receptáculo o membrana interior removida de un receptáculo que ha sido utilizado para contener cualquier producto químico comercial o químico intermedio de la manufactura que tenga su nombre genérico anotado en el inciso (e) de esta regla 607 D, o cualquier receptáculo o membrana interior removida de un receptáculo que haya sido utilizado para contener cualquier producto químico que no cumpla con las especificaciones y químico intermedio de la manufactura el cual, si cumple con las especificaciones, tendrá su nombre genérico anotado en el inciso (e) de esta regla 607 D, a menos que el receptáculo este vacío según la Regla 606 A (3).
- d. Cualquier residuo o contaminación de suelo, agua u otros desechos que resulten de la limpieza de un derrame, en o sobre el terreno o agua, de cualquier producto químico comercial o químico intermedio de la manufactura que tenga el nombre genérico anotado en el inciso (e) o (f) de esta regla 607 D, o cualquier residuo o contaminación de suelo, agua u otros desechos que resulten de la limpieza de un derrame, en o sobre el terreno o agua, de cualquier producto químico que no cumple con las especificaciones de calidad establecidas y químico intermedio de la manufactura el cual, si cumple con las especificaciones, puede tener el nombre genérico anotado en el inciso (e) o (f) de esta regla 607 D.

D. Productos Químicos Comerciales Desechados, Productos que no Cumplen con las Especificaciones de Calidad Establecidas, Residuos de recipientes y Residuos de derrames.

1. Los siguientes materiales o artículos son desperdicios peligrosos si son desechados y cuando son desechados o se intentan desechar, cuando son mezclados con desperdicios de aceite o aceite usado u otro material y aplicados al terreno para la supresión del polvo o tratamiento para las carreteras, o cuando, en lugar del uso original que se le pensaba dar, han sido producidos para utilizarlos como (o como un componente de) combustible, distribuidos para utilizarlos como combustible o quemados como combustible.

a. Cualquier producto químico comercial o químico intermedio de la manufactura que tenga el nombre genérico anotado en el inciso (e) o (f) de esta regla 607 D.

b. Cualquier producto químico comercial que no cumpla con las especificaciones de calidad establecidas o químico intermedio de la manufactura el cual, si cumple con las especificaciones, deberá tener el nombre genérico anotado en el inciso (e) o (f) de esta regla 607 D.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Inorganic chemicals		
K071	Brine purification muds from the mercury cell process in chlorine production where separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Pesticides		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K042	Untreated process wastewater from the production of toxaphene	(T)
K043	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K044	2,6-Dichlorophenol waste from the production of 2,4,5-T	(T)
K045	Untreated wastewater from the production of 2,4,5-T	(T)
Explosives		
K046	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K047	Spent carbon from the treatment of wastewater containing explosives	(R)
K048	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K049	Pink rec water from TNT operations	(R)
Petroleum refining		
K049	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slick or emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (headed) from the petroleum refining industry	(T)
Iron and steel		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron or steel industry (SIC Codes 331 and 332)	(C, T)
Secondary lead		
K065	Emission control dust/sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	(T)
Veterinary pharmaceuticals		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink formulation: K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, dyes, resins and stabilizers containing chromium and lead	(T)
Coking		
K060	Ammonia still lime sludge from coking operations	(T)
K067	Decanter tank tar sludge from coking operations	(T)

10-31-86

Esta Regla 607 C es equivalente al 40 CFR Sección 261.32.

C. Desperdicios Peligrosos de Fuentes Específicas

Los siguientes desperdicios sólidos están anotados como desperdicios peligrosos de fuentes específicas a menos que sean excluidos bajo las Reglas 208 B y 208 G y anotadas en el Anejo C-4:

Industry and EPA hazardous waste No.	Hazardous waste	hazard code
Wood preservation, K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachloropheno.	(T)
Inorganic pigments		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K012	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K013	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K014	Still bottoms from the distillation of benzyl chloride	(T)
K015	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K016	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)

[K111 through K116 added by 50 FR
42942, October 23, 1985]

K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C, T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	(T)
K118	pent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)

[K117, 118 and 136 added by 51 FR
5330, February 13, 1986]

B. Desperdicios Peligrosos de Fuentes No-Específicas.

Los siguientes desperdicios sólidos están anotados como desperdicios peligrosos de fuentes no-específicas a menos que hayan sido excluidos bajo las Reglas 208 B y 208 G y anotadas en el Anejo C-4.

Industry and EPA Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated base) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and mixing of aluminum.	(T)
F006	Wastewater treatment sludges from the chemical conversion coating of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F024	Wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production or manufacture of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent liners and filter aids, spent desiccants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in §261.32)	(H)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F027	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from: precursors 2,4,5-trichlorophenol as the sole component.)	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	(T)

10-31-86

* (I,T) Debe de ser utilizado para especificar las mezclas que contienen constituyentes inflamables y tóxicos.

Esta Regla 607 B es equivalente al 40 CFR Sección 261.31.

Desperdicio Inflamable.....(I)
 Desperdicio Corrosivo.....(C)
 Desperdicio Reactivo.....(R)
 Desperdicio Tóxico por el Procedimiento
 de Extracción (EP Toxic Waste).....(E)
 Desperdicio Severamente Peligroso(H)
 Desperdicio Tóxico.....(T)

El Anejo B-14 identifica los constituyentes causantes de que el desperdicio fuera anotado como un Desperdicio Tóxico por el procedimiento de Extracción (EP Toxic Waste) (E) o un Desperdicio Tóxico (T) en los incisos B y C de esta regla.

3. Cada desperdicio peligroso anotado en esta regla tiene asignado por la APA un número de peligrosidad que precede el nombre del desperdicio. Este número debe ser usado al cumplir con los requisitos de notificación de la Sección 3010 de la LCRR (Anejo C-8) y con las disposiciones generales relacionadas con el mantenimiento de registros e informes bajo las las Partes V, VII, VIII-I, VIII-II y IX-I de este reglamento.
4. Los siguientes desperdicios peligrosos anotados en los incisos B o C de esta regla estan sujetos a los límites de exclusión para los desperdicios severamente peligrosos establecidos en la Regla 606 A: Número de Peligrosidad asignado por la APA F020, F021, F022, F023, F026 y F027.

Esta Regla 607 A es equivalente al 40 CFR Sección 261.30.

- (2) El receptáculo o su revestimiento interno ha sido limpiado por otro método que haya sido demostrado en la literatura científica, o por pruebas conducidas por el generador, o por otro método determinado por las junta para alcanzar la remoción equivalente; o
- (3) En el caso de un receptáculo, el revestimiento interno que evitó el contacto del producto químico comercial o el producto químico intermedio de la manufactura con el receptáculo, ha sido removido.

Esta regla es equivalente al 40 CFR Sección 261.7.

Se enmienda la Regla 607 para que en lo sucesivo lea como sigue:

Regla 607 Listado de Desperdicios Peligrosos

A. General

1. Un desperdicio sólido es un desperdicio peligroso si el mismo esta anotado en esta regla, a menos que sea excluido de esta lista bajo las Reglas 208 B y 208 G.
2. La Junta indicará las bases para anotar las clases o tipos de desperdicio anotados en esta regla empleando uno o más de los siguientes Códigos de Peligrosidad:

(3) (A) No más de 3 por ciento por peso de la capacidad total del receptáculo permanece en el receptáculo o en el revestimiento interno si el receptáculo es menor o igual a 110 galones en tamaño, o

(B) No más de 0.3 por ciento por peso de la capacidad total del receptáculo permanece en el receptáculo o en el revestimiento interno si el receptáculo es mayor de 110 galones en tamaño.

b. Un receptáculo que ha contenido algún desperdicio peligroso que es un gas comprimido se considerará vacío cuando la presión dentro del receptáculo se acerca a la presión atmosférica.

c. Un receptáculo o un revestimiento interno removido de un receptáculo que ha contenido algún desperdicio severamente peligroso anotado en las Reglas 607 B, 607 C ó 607 D (5) esta vacío si:

(1) El receptáculo o su revestimiento interno ha sido enjuagado tres (3) veces usando un solvente capaz de remover el producto químico comercial o químico intermedio de la manufactura;

esta regla 606 C, no esta sujeto a reglamentación bajo las Partes V a la IX-I de este reglamento o a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8).

- b. Cualquier desperdicio peligroso ya sea en un receptáculo que no esta vacío o un revestimiento interno removido de un receptáculo que no esta vacío, según se define en el párrafo (2) de esta regla 606 C, esta sujeto a reglamentación bajo las Partes V a la IX-I de este reglamento y a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8).
2. a. Un receptáculo o un revestimiento interno removido de un receptáculo que ha contenido cualquier desperdicio peligroso, excepto un desperdicio que sea un gas comprimido o que ha sido identificado como un desperdicio severamente peligroso anotado en las Reglas 607 B, 607 C ó 607 D (5) de este reglamento, esta vacío si:
- (1) Todo el desperdicio ha sido removido, aquel que puede ser removido utilizando las prácticas comúnmente empleadas para remover materiales de ese tipo de receptáculo, ejemplo, verter, bombear, aspirar, y
 - (2) No más de 2.5 centímetros (una (1) pulgada) del residuo permanece en el receptáculo o en el revestimiento interno, o

3. a. Los dueños u operadores de facilidades que almacenan material reciclable antes de ser reciclado están reglamentados bajo todas las disposiciones aplicables de las Reglas I-801 hasta la Regla I-818, la Regla II-801 hasta la II-812, las Reglas 207 y 502 hasta la 505, la Parte IX-I y la Parte XI de este reglamento, y bajo los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8) excepto lo que se provee en el inciso (1) de esta regla 606 B. (El proceso mismo de reciclaje esta exento de reglamentación).

b. Los dueños u operadores de facilidades que reciclan materiales reciclables sin almacenarlos antes de ser reciclados están sujetos a los siguientes requisitos, excepto lo que se provee en el inciso (1) de esta regla 606 B:

(1) Requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8);

(2) Regla 504 D (que trata sobre el uso y discrepancias del manifiesto) de este reglamento.

Esta regla es equivalente al 40 CFR Sección 261.6.

Se enmienda la Regla 606 C para que en lo sucesivo lea como sigue:

Regla 606 C Residuos de desperdicios peligrosos en receptáculos vacíos.

1. a. Cualquier desperdicio peligroso que permanece en un receptáculo vacío o un revestimiento interno removido de un receptáculo vacío, según se define en el párrafo (2) de

después del punto donde los contaminantes son removidos, siempre y cuando el combustible cumpla con las especificaciones de combustible de aceite usado bajo la Regla 1105 A (5) de este reglamento; y

- (C) Aceite reclamado de los desperdicios peligrosos que contienen aceite mediante las prácticas de refinación, producción y transportación, donde el aceite reclamado es quemado como combustible sin su reincorporación al proceso de refinación, siempre y cuando el aceite reclamado cumpla con las especificaciones para combustible de aceite usado bajo la Regla 1105 A (5) de este reglamento; y

9. Coque de petróleo producido por la refinación de petróleo de desperdicios peligrosos conteniendo aceite en la misma facilidad donde tal desperdicio es generado, a menos que el producto resultante de coque excede una o más de las características de desperdicios peligrosos bajo la Regla 604 de este reglamento.

- 2. Generadores y transportadores de materiales reciclables están sujetos a los requisitos aplicables de las Partes V y VII de este reglamento y a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8) excepto lo que se provee en el inciso (1) de esta regla 606 B.

- (7) Coque y adquisición de hulla producto de la industria de hierro y acero que contienen desperdicios peligrosos del proceso de producción de hierro y acero;
- (8) (A) Combustible de desperdicio peligroso producido de desperdicio peligroso que contengan aceite mediante las prácticas de refinación, producción y transportación de aceite, o producido del aceite reclamado de tales desperdicios peligrosos, cuando tales desperdicios peligrosos son reincorporados a un proceso que no usa destilación o que no produce productos de aceite crudo, mientras tanto el combustible resultante cumple las especificaciones para aceites usados bajo la Regla 1105 A (5) de éste reglamento y siempre y cuando ningún otro desperdicio peligroso es utilizado para producir el combustible de desperdicio peligroso;
- (B) Combustible de desperdicio peligroso producido de desperdicios peligrosos que contengan aceite mediante la refinación de petróleo y las prácticas de transportación donde esos desperdicios peligrosos son reincorporados al proceso de refinación

c. Los siguientes materiales reciclables no están sujetos a la reglamentación bajo las Partes V, VII, VIII-I, VIII-II, IX-I y XI de este reglamento, y no están sujetos a los requisitos de notificación de la Sección 3010 de RCRA (Anejo C-8):

- (1) Alcohol etílico industrial reclamado;
- (2) Baterías usadas (o celdas de batería usadas) devueltas a un fabricante de baterías para la regeneración;
- (3) Aceite usado que presente una o más características de desperdicio peligroso pero que es reciclado en otras formas en lugar de ser quemado para el recobro de energía;
- (4) Chatarras;
- (5) Combustible que se produce por la refinación de desperdicios peligrosos que contengan aceite en una facilidad de refinación de petróleo si ese desperdicio resulta de prácticas normales de refinación, producción y transportación de petróleo;
- (6) El aceite reclamado de desperdicios peligrosos resultantes de las prácticas normales de refinación, producción y transportación de petróleo, donde el aceite será refinado solo con flujo del proceso normal en una facilidad de refinación de petróleo.

b. Los siguientes materiales reciclables no están sujetos a los requisitos de esta regla 606 B pero sí están regulados bajo las Reglas 1103 a la 1107 de este reglamento y por todas las disposiciones aplicables de la parte IX-I de este reglamento.

- (1) Materiales reciclables utilizados en una forma que constituya disposición (Regla 1103);
- (2) Desperdicios peligrosos quemados para el recobro de energía en calderas y hornos industriales que no están reglamentados bajo las Reglas I-814 y II-815 de este reglamento (Regla 1104);
- (3) Aceite usado que tenga una o más características de desperdicios peligrosos y que es quemado para el recobro de energía en calderas y hornos industriales que no están reglamentados bajo las Reglas I-814 y II-815 de este reglamento (Regla 1105);
- (4) Materiales reciclables de los cuales se reclaman metales preciosos (Regla 1106);
- (5) Baterías agotadas con ácido mezclado con plomo que han sido reclamadas (Regla 1107);

Pub- med access ion no	Chemical abstract no.	Substance
U106	806-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-86-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U201	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-83-5	1,2-Ethanediamine, N,N-dimethyl-N-2-pyridenyl-N-(2-phenylmethyl)-
U067	106-63-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	830-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	82-55-5	Ethanethioamide
U227	110-80-5	Ethanol, 2-ethoxy-
U259	79-00-5	Ethanol, 1,2-trichloro-
U173	1118-54-7	Ethanol, 2,2'-(methoxymethoxy)-
U034	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-80-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U036	51-79-6	Ethyl carbamate
U038	510-15-6	Ethyl 4,4'-dichlorobenzilate
U114	111-54-6	Ethylenebis(2-chlorobenzoic acid, salts and ester)
U007	106-83-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylene thiourea
U117	80-29-7	Ethyl ether (I)
U076	75-34-3	Ethylene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethylmethanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-8	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	106-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-
U126	785-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	67-68-3	Hexachlorobutadiene
U129	68-88-9	Hexachlorocyclohexane (gamma isomer)
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-90-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-86-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U096	80-15-8	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U136	75-80-5	Hydroxydimethylamine oxide
U116	98-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U139	9004-88-4	Iron dextran
U180	85-44-9	1,3-Isobenzoxarandione
U140	78-63-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isooctole
U142	143-60-0	Kapone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U148	1335-32-6	Lead, bis(acetoxy-Oxyethylhydroxy)-
U145	7448-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-69-8	Lindane
U147	106-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-62-3	Melphalan
U151	7439-97-6	Mercury
U152	128-66-7	Methacrylonitrile (I,T)

HAZ. waste no.	Chemical abstracts No	Substance
U052	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-85-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-86-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	86-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U123	64-18-6	Methanoic acid (C,T)
U154	67-56-1	Methanol (I)
U155	91-80-6	Methapyrene
U142	143-50-0	1,3,4-Methano-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-
U247	72-43-6	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U039	74-83-9	Methyl bromide
U181	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	78-22-1	Methylchlorocarbonate (I,T)
U226	71-55-8	Methylchlorotom
U157	56-48-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chlorobenzene)
U068	74-85-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U182	80-62-6	Methyl methacrylate (I,T)
U163	70-25-7	N-Methyl-N-nitro-N-nitrosoguanidine
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiourea
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[[3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[[3,3-dimethyl-(1,1'-biphenyl)-4,4'-diyl]-bis(sulfonyl)]bis(5-amino-4-hydroxy)-, tetrasodium salt
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U026	494-03-1	2-Naphthylamine, N,N'-bis(2-chloromethyl)-
U167	134-32-7	1-Naphthylamine
U168	91-59-8	2-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosod-n-butylamine
U173	1116-54-7	N-Nitrosodethanolamine
U174	55-18-5	N-Nitrosodethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-83-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluene
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxane (I,T)
U126	765-34-4	Oxanecarboxaldehyde
U041	106-89-8	Oxane, (chloromethyl)-
U182	123-83-7	Paraldehyde
U183	806-93-5	Pentachlorobenzene
U184	78-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U242	87-86-5	Pentachlorophenol
U186	604-60-9	1,3-Pentadiene (I)
U187	82-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	58-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-86-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U170	100-02-7	Phenol, 4-nitro-
U242	87-86-5	Phenol, pentachloro-
U212	58-90-2	Phenol, 2,3,4,6-tetrachloro-
U230	95-94-4	Phenol, 2,4,5-trichloro-
U231	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-9	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7448-27-7	Phosphoric acid, lead salt
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl-, S-methyl-, ester
U189	108-96-2	Phosphorous sulfide (P)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U178	100-75-4	Piperidine, 1-nitroso-

152- and/or Waste No.	Chemical abstracts No	Substance
U182	23950-58-5	Propanamide
U184	107-10-8	1-Propanamine (I,T)
U111	821-84-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U086	96-12-8	Propane, 1,2-dibromo-3-chloro-
U149	106-77-3	Propanedinitrile
U171	79-46-8	Propane, 2-nitro- (I,T)
U027	39638-32-6	Propane, 2,2-oxbis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
U235	126-72-7	1-Propanol, 2,5-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U084	542-75-6	1-Propane, 1,3-dichloro-
U152	126-86-7	2-Propanedinitrile, 2-methyl- (I,T)
U007	79-06-1	2-Propanamide
U243	1886-71-7	1-Propane, hexachloro-
U009	107-13-1	2-Propanenitrile
U008	79-10-7	2-Propanoic acid (I)
U113	140-88-5	2-Propanoic acid, ethyl ester (I)
U118	67-63-2	2-Propanoic acid, 2-methyl-, ethyl ester
U162	80-86-2	2-Propanoic acid, 2-methyl-, methyl ester (I,T)
U233	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-6	Propylene dichloride
U148	123-33-1	3,6-Pyridinedione, 1,2-dihydro-
U186	110-86-1	Pyridine
U181	109-06-8	Pyridine, 2-methyl-
U237	86-75-1	2,4-(1H,3H)-Pyrimidinone, 5-[[bis(2-chloroethylamino)-
U164	56-04-2	4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrimidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	106-46-3	Resorcinol
U202	81-07-2	Saccharin and salts
U203	94-59-7	Selenic acid
U204	7783-00-8	Selenium dioxide
U205	7446-34-6	Selenium sulfide (R,T)
U015	115-02-8	L-Serine, diazotate (ester)
U233	93-72-1	Silver
U206	18883-68-4	Streptozotocin
U133	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
U232	83-76-5	2,4,5-T
U207	95-84-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
U212	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	15843-14-8	Thallium(I) acetate
U215	6533-73-8	Thallium(I) carbonate
U216	7791-12-0	Thallium chloride
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thiopyrosodicarbonic diimide, tetramethyl-
U219	62-56-6	Thiourea
U244	137-26-8	Thiuram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-82-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-89-4	Trichloromono-fluoromethane
U230	95-95-4	2,4,5-Trichlorophenol
U231	88-06-2	2,4,6-Trichlorophenol
U234	99-36-4	sym-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris (2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-6	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	81-81-2	Warfarin, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	60-56-5	Xylenes-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyloxy)-, methyl ester
U249	1314-84-7	Zinc phosphide, when present at concentrations of 10% or less

¹ CAS Number given for parent compound only.

10-31-86

Esta Regla 607 D es equivalente al 40 CFR Sección 261.33.



-III-

40 CFR 262

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTES V y VII



Se enmienda la Regla 702 B para que en lo sucesivo lea como sigue:

Regla 702 B. Determinación de Desperdicio Peligroso

1. Cualquier persona que genere algún desperdicio sólido, según se define en la Regla 102, deberá determinar si ese desperdicio es peligroso utilizando el siguiente método:

a. Determinar, en primer lugar, si el desperdicio queda excluido de la reglamentación según la definición de desperdicio sólido de la Regla 102;

b. Determinar luego si el desperdicio aparece anotado como desperdicio peligroso bajo la Regla 607;

NOTA: Aún cuando el desperdicio este anotado, el generador todavía tiene la oportunidad, bajo la Regla 208 G, de demostrarle a la Junta que el desperdicio de su facilidad en particular u operación, no es un desperdicio peligroso.

c. Si el desperdicio no aparece anotado como desperdicio peligroso en la Regla 607, se debe determinar si el desperdicio ha sido identificado en la Regla 604 ya sea:

(1) Analizando el desperdicio de acuerdo con los métodos establecidos en la Regla 604, o de acuerdo con algún método equivalente aprobado por la Junta bajo la Regla 208 H; o

- (2) Aplicando el conocimiento que se tenga sobre la característica de peligrosidad del desperdicio a la luz de los materiales o los procesos utilizados.

Esta regla es equivalente al 40 CFR Sección 262.11.

Se enmienda la Regla 702 C para que en lo sucesivo lea como sigue:

Regla 702 C. Números de Identificación

1. Un generador no debe tratar, almacenar, disponer, transportar u ofrecer para la transportación sus desperdicios peligrosos sin haber recibido un número de identificación de la Junta.
2. Un generador que no haya recibido un número de identificación puede obtenerlo solicitándolo a la APA utilizando la forma 8700-12. Al recibir la solicitud, la APA le asignará un número de identificación al generador.
3. Un generador no debe ofrecer sus desperdicios peligrosos a transportadores o facilidades de tratamiento, almacenamiento o disposición que no haya recibido un número de identificación de la APA.

Esta regla es equivalente al 40 CFR Sección 262.12.

Se enmienda la Regla 703 para añadir lo siguiente como la Regla 703 G:

Regla 703 G. Los requisitos de esta regla no aplican a los desperdicios peligrosos producidos por generadores de más de 100 kg pero menos de 1,000 kg en un mes calendario donde:

1. El desperdicio es reclamado bajo un acuerdo contractual bajo el cual:
 - a. El tipo de desperdicio y la frecuencia del embarque estén especificados en el acuerdo;
 - b. El vehículo utilizando para transportar el desperdicio a la facilidad de reciclaje y para entregar el material regenerado de regreso al generador sea propiedad y operado por el reclamador del desperdicio; y
2. El generador mantiene una copia del acuerdo de reclamación en sus archivos por un periodo de al menos tres años después de terminado o expirado el acuerdo.

Esta regla es equivalente al 40 CFR Sección 262.20 (e).

Se enmienda la Regla 704 D para que en lo sucesivo lea como sigue:

Regla 704 D Tiempo de Almacenamiento

1. Excepto lo que se provee en los párrafos (4), (5) y (6) de esta regla 704 D, un generador podrá acumular desperdicios peligrosos en su

facilidad por un periodo de noventa (90) días o menos, sin permiso o sin tener status interino siempre que:

- a. El desperdicio se coloque en receptáculos y el generador cumple con la Regla I-812, o que el desperdicio se coloque en tanques y el generador cumple con la Regla I-813 excepto la Regla I-813 C;
 - b. La fecha en que comienza cada periodo de acumulación esta claramente marcada y visible para inspección en cada receptáculo;
 - c. Mientras sea acumulado en su facilidad, cada receptáculo y tanque esta rotulado o marcado claramente con la palabra, "Desperdicio Peligroso" ("Hazardous Waste"); y
 - d. El generador cumple con los requisitos para dueños u operadores en las Reglas I-803, I-810 y 207 y con la Regla I-808 C.
2. El generador que acumula desperdicios peligrosos por más de noventa (90) días es un operador de una facilidad de almacenamiento y esta sujeto a los requisitos de las Partes VIII-I y VIII-II y a los requisitos de permiso de la Parte IX-I, a menos que se le haya otorgado una extensión al periodo de noventa (90) días. Esa extensión puede ser otorgada por la Junta si los desperdicios peligrosos van a permanecer en su facilidad por más de noventa (90) días debido a

circunstancias imprevistas, temporeras e incontrolables. Una extensión de hasta treinta (30) días puede ser otorgada a discreción de la Junta en una determinación caso-a-caso.

3. a. Un generador puede acumular tanto como 55 galones de desperdicio peligroso o un cuarto de galón de desperdicio peligroso severo anotado en las Reglas 607 D (5) en receptáculo en o cerca de cualquier punto de generación donde los desperdicios inicialmente se acumulan, el cual está bajo el control del operador del proceso que genera el desperdicio, sin un permiso o status interino y sin cumplir con el párrafo (1) de esta regla 704 D siempre y cuando:

- (i) Cumpla con las Reglas I-812 B, I-812 C y I-812 D (2) de este reglamento; y

- (ii) Rotule sus receptáculos ya sea con las palabras "Desperdicio Peligroso" ("Hazardous Waste") o con otras palabras que identifiquen el contenido de los receptáculos.

- b. Un generador que acumula ya sea desperdicio peligroso o desperdicio peligroso severo anotado en la Regla 607 D (5) en exceso de las cantidades anotadas en el párrafo (3) (a) de esta Regla 704 D, en o cerca de cualquier punto de generación debe, con respecto a la cantidad de desperdicio en exceso, cumplir dentro de tres (3) días con el párrafo (1) de esta Regla 704 D o con otras disposiciones aplicables de este reglamento. Durante

el periodo de tres (3) días el generador continuará cumpliendo con los párrafos (3) (a) (i) y (ii) de esta Regla 704 D. El generador debe rotular el receptáculo que contiene la acumulación del exceso de desperdicio peligroso, con la fecha que la cantidad en exceso comenzó a ser acumulada.

4. Un generador que genera más de 100 kg pero menos de 1,000 kg de desperdicios peligrosos en un mes calendario puede acumular desperdicios peligrosos en su facilidad por 180 días o menos sin tener un permiso o sin tener status interino siempre que:
 - a. La cantidad de desperdicio acumulado en su facilidad nunca excede 6,000 kg;
 - b. El generador cumpla con los requisitos del párrafo (1) (a) excepto la Regla I-812 B (5);
 - c. El generador cumpla con los requisitos de los párrafos (1) (b) y (1) (c) de esta Regla 704 D y con los requisitos de la Regla I-810.
 - d. El generador cumpla con los siguientes requisitos:
 - (i) En todo momento debe haber por lo menos un empleado ya sea en las premisas o en comunicación (por ejemplo, debe estar disponible para responder a una emergencia llegando a la facilidad en un

periodo corto de tiempo) con la responsabilidad de coordinar todas las medidas de respuesta a emergencias especificadas en el párrafo (4) (c) (iv) de esta Regla 704 D. Este empleado es el coordinador de emergencia.

(ii) El generador debe colocar la siguiente información cerca del teléfono:

(A) El nombre y el número telefónico del coordinador de emergencias;

(B) Localización de los extinguidores de fuegos y el material de control de derrames y, si esta presente, la alarma contra fuegos; y

(C) El número telefónico del Departamento de Bomberos, a menos que la facilidad tenga una alarma directa.

(iii) El generador debe asegurarse de que todos los empleados estan completamente familiarizados con los procedimientos de emergencia y para el manejo de desperdicios, relevantes a sus responsabilidades durante las operaciones y emergencias.

(iv) El coordinador de emergencias o su representante debe responder a cualquier emergencia que surja. Las respuestas aplicables son las siguientes:

- (A) En caso de fuego, llamar al Departamento de Bomberos o tratar de extinguir el mismo utilizando un extinguidor de fuego;
- (B) En caso de derrame, contener el flujo de desperdicios peligrosos lo más posible, y tan pronto como sea práctico, limpiar el desperdicio peligroso y cualquier material o suelo contaminado;
- (C) En caso de fuego, explosión u otro escape que pueda amenazar la salud humana fuera de la facilidad o cuando el generador tenga conocimiento que un derrame ha llegado al agua superficial, el generador debe inmediatamente notificar al Centro de Respuesta Nacional (utilizando el siguiente número de teléfono de 24-horas sin cargo: 800/424-8802). El informe debe incluir la siguiente información:
 - (1) El nombre, dirección y número de identificación del generador;
 - (2) Fecha, hora y tipo de incidente (por ejemplo, derrame o fuego);
 - (3) Cantidad y tipo de desperdicio peligroso envuelto en el incidente;

(4) Magnitud de los daños, si alguno; y

(5) Cantidad estimada y disposición del material recuperado, si alguno.

5. Un generador que genera más de 100 kg pero, menos de 1,000 kg de desperdicio peligroso en un mes calendario y que debe transportar su desperdicio, u ofrecer su desperdicio para la transportación, sobre una distancia de 200 millas o más para su tratamiento, almacenamiento o disposición fuera de su facilidad puede acumular desperdicios peligrosos en su facilidad por un periodo de 270 días o menos sin permiso o sin tener status interino siempre que cumpla con los requisitos del párrafo (4) de esta Regla 704 D.
6. Un generador que genera más de 100 kg pero menos de 1,000 kg de desperdicio peligroso en un mes calendario y que acumula desperdicio peligroso en cantidades que exceden los 6,000 kg o que acumula desperdicio peligroso por más de 180 días (o por más de 270 días si va a transportar su desperdicio, o va a ofrecer su desperdicio para la transportación sobre una distancia de 200 millas o más) es un operador de una facilidad de almacenamiento y esta sujeto a los requisitos de las Partes VIII-I y VIII-II y a los requisitos de permiso de la Parte IX-I a menos que se le haya otorgado una extensión al periodo del 180 días (o de 270 días si es aplicable). Dicha extensión debe ser otorgada por la Junta si los desperdicios peligrosos permanecen en su

facilidad por más de 180 días (o 270 días si es aplicable) por circunstancias imprevistas, temporeras e incontrolables. Una extensión de hasta 30 días puede ser otorgada a discreción de la Junta en una determinación caso-a-caso.

Esta regla es equivalente al 40 CFR Sección 262.34.

Se enmienda la Regla 504 A (1) para que en lo sucesivo lea como sigue:

Regla 504 A 1. El generador debe mantener una copia de cada manifiesto firmado de acuerdo con la Regla 703 E por un periodo de tres (3) años o hasta que reciba una copia firmada por la facilidad designada que recibió el desperdicio. Esta copia firmada debe ser retenida como registro por lo menos durante tres años a partir de la fecha que el desperdicio fue aceptado por el transportador inicial.

Esta regla es equivalente al 40 CFR Sección 262.40 (a).

Se enmienda la Regla 504 A (2) para que en lo sucesivo lea como sigue:

Regla 504 A 2. El generador debe mantener una copia de cada Informe Bienal y del Informe de Excepción por un periodo de por los menos tres años a partir de la fecha que el informe ha vencido.

Esta regla es equivalente al 40 CFR Sección 262.40 (b).

Se enmienda la Regla 502 A (1) para que en lo sucesivo lea como sigue:

Regla 502 A 1. El generador mantendrá todos los resultados de las pruebas, los análisis de desperdicio u otras determinaciones hechas de acuerdo con la Regla 702 B al menos por tres años a partir de la fecha que el desperdicio fue enviado dentro o fuera de la facilidad para el tratamiento, almacenamiento o disposición.

Esta regla es equivalente al 40 CFR Sección 262.40 (c).

Se enmienda la Regla 505 C para que en lo sucesivo lea como sigue:

Regla 505 C Los periodos de retención mencionados bajo esta Parte serán extendidos automáticamente durante el curso de cualquier litigio que no haya sido resuelto en relación con la actividad regulada o según sea requerido por la Junta.

Esta regla es equivalente al 40 CFR Sección 262.40 (d).

Se enmienda la Regla 503 A para que en lo sucesivo lea como sigue:

Regla 503 A Informe Bienal

1. Un generador que envía sus desperdicios peligrosos fuera de su facilidad debe preparar y someter una copia del informe bienal a la Junta el primero de marzo de cada año par. El informe bienal debe ser sometido en la forma provista por la Junta y debe cubrir las actividades del

generador llevadas a cabo durante el año calendario anterior, y además se incluirá la siguiente información:

- a. El número de identificación asignado por la APA, nombre y dirección del generador;
- b. El año calendario cubierto por el informe;
- c. El número de identificación asignado por la APA, nombre y dirección de cada facilidad de tratamiento, almacenamiento o disposición fuera de su facilidad a la cual el desperdicio fue enviado durante ese año; para cada embarque exportado, el informe debe incluir el nombre y dirección de la facilidad extranjera.
- d. El nombre y número de identificación asignado por la APA de cada transportador utilizado durante el año correspondiente al informe.
- e. Una descripción, el número asignado por la Junta de cada desperdicio peligroso (según las Reglas 604 y 607), la clase de peligrosidad asignada por el Departamento de Transportación Federal (DOT) y la cantidad de cada desperdicio peligroso llevado fuera de su facilidad. Esta información debe ser anotada por el número de identificación asignado por la APA de cada facilidad a la cual el desperdicio fue enviado fuera de su facilidad.

- f. Una descripción de los esfuerzos realizados durante ese año para reducir el volumen y toxicidad del desperdicio generado.
 - g. Una descripción de los cambios en volumen y toxicidad del desperdicio, que realmente se han logrado durante el año, en comparación con años anteriores en la medida en que esa información este disponible para años anteriores a 1984.
 - h. La certificación firmada por el generador o su representante autorizado.
2. Cualquier generador que trata, almacena o dispone desperdicios peligrosos en su facilidad debe someter un informe bienal cubriendo esos desperdicios de acuerdo con las disposiciones establecidas en las Partes VIII-I, VIII-II, IX-I y XI de este reglamento.

Esta regla es equivalente al 40 CFR Sección 262.41.

Se enmienda la Regla 705 A para que en lo sucesivo lea como sigue:

Regla 705 A Embarques Internacionales

1. Cualquier persona que exporte desperdicios peligrosos hacia un país extranjero o que importe desperdicios peligrosos desde un país extranjero a Puerto Rico deberá cumplir con los requisitos de esta regla.

2. Cuando se embarque desperdicios peligrosos fuera de Puerto Rico, el generador debe:

a. Notificar por escrito a la Junta con cuatro (4) semanas de anticipación al embarque inicial del desperdicio peligroso hacia cada país, en cada año calendario;

(1) El desperdicio deberá estar identificado por su número de identificación de desperdicio peligroso asignado por la Junta y por la descripción de embarque que requiere el Departamento de Transportación Federal (DOT);

(2) El nombre y dirección de cada consignatario extranjero debe ser incluido en esta notificación;

(3) Esta notificación debe ser enviada a la siguiente dirección: "Office of International Activities (A-106), U.S. Environmental Protection Agency, Washington D.C. 20460". En adición se enviará una copia al Area Control Contaminación de Terrenos de la Junta de Calidad Ambiental.

b. Requerirle al consignatario extranjero que confirme la entrega del desperdicio en el país extranjero. Se podrá utilizar una copia del manifiesto firmado por el consignatario extranjero para este propósito;

- c. Cumplir con los requisitos establecidos en la Regla 703 para el manifiesto, excepto que:
 - (1) En lugar del nombre, dirección y número de identificación de la facilidad designada se utilizará el nombre y dirección del consignatario extranjero;
 - (2) El generador identificará el punto de partida de Puerto Rico a través del cual el desperdicio deberá viajar antes de entrar al país extranjero.
 - d. Siempre se utilizará la forma de Manifiesto provista por la Junta de Calidad Ambiental.
3. El generador debe hacer un Informe de Excepción si:
- a. Dentro de los 45 días después de la fecha que el desperdicio fue aceptado por el transportador inicial, el generador no ha recibido una copia del manifiesto firmado por el transportador señalando la fecha y el lugar de partida de Puerto Rico; o
 - b. Dentro de los 90 días después de la fecha que el desperdicio fue aceptado por el transportador inicial, el generador no ha recibido una confirmación escrita del consignatario extranjero indicando que el desperdicio peligroso ha sido recibido.

4. Cualquier persona que exporte desperdicios peligrosos identificados o anotados bajo la Parte VI de este reglamento deberá radicar ante esta Junta, no más tarde del primero de marzo de cada año, un informe resumiendo los tipos, cantidades, frecuencia y el último destino de cada desperdicio peligroso exportado durante el año calendario anterior.
5. Cuando se importa desperdicio peligroso, la persona debe cumplir con todos los requisitos de la Regla 703 para el manifiesto excepto que:
 - a. En lugar del nombre del generador, dirección y número de identificación asignado por la APA, se deberá utilizar el nombre y dirección del generador extranjero y el nombre, dirección y número de identificación asignado por la APA al importador.
 - b. En lugar de firmar el generador la certificación, el importador o su agente autorizado deberá firmar, fechar la certificación y obtener la firma del transportador inicial.
6. Una persona que importa desperdicios peligrosos debe obtener la forma del manifiesto del país del generador si ese país suple el manifiesto y requiere su uso. Si ese país no suple la forma del manifiesto, deberá utilizarse la provista por la Junta de Calidad Ambiental.

Esta regla es equivalente al 40 CFR Sección 262.50.

-IV-

40 CFR 263

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTES V Y VII



Se enmienda la Regla II-805 D (2) para añadir un inciso (i) que leerá:

- (i) Una certificación por el solicitante, al menos anualmente, especificando que posee un programa vigente para reducir el volumen y toxicidad de los desperdicios peligrosos que genera, el cual éste considera económicamente práctico. El propuesto método de tratamiento, almacenamiento, y disposición será uno práctico, generalmente disponible para el solicitante y el cual reducirá al mínimo la amenaza presente y futura a la salud humana y el ambiente.

Este inciso equivale al 40 CFR Sección 264.73 (b) (9).

Se enmienda la Regla II-806 A (1) para que lea como sigue:

Protección de Agua Subterránea

Regla II-806 A Aplicabilidad.

- (1) (a) Excepto según se dispone en el párrafo (2) de esta Regla, estas disposiciones aplican a dueños y operadores de facilidades que tratan, almacenan o disponen de desperdicios peligrosos. El dueño u operador deberá satisfacer los requisitos identificados en el párrafo (1) (b) de esta Regla para todo desperdicio (o constituyente del mismo) contenido en cualquier unidad de manejo de desperdicio sólido en la facilidad, independientemente de la fecha en la cual los desperdicios fueron colocados en dichas unidades.

Se enmienda la Regla II-802 H para añadirle un inciso (3) que lee como sigue:

- (3) Formaciones en cúpulas de sal o yacimientos de sal, minas subterráneas y cuevas. Está prohibido colocar cualquier desperdicio líquido peligroso a granel, no envasado, en cualquier formación de cúpulas o yacimientos de sal, minas subterráneas o cuevas.

Este nuevo inciso equivale al 40 CFR Sección 264.18 (c).

Se enmienda la Regla II-805 A para que en lo sucesivo lea de la siguiente manera:

Sistema de Manifiesto, Mantenimiento de Registro y de Informes

Regla II-805 A Aplicabilidad.

La reglamentación contenida en esta Regla aplica a dueños y operadores de facilidades que disponen en y fuera de su facilidad, excepto cuando se disponga lo contrario en la Regla II-801. Las Reglas II-805 B, II-805 C y II-805 G no aplican a dueños u operadores de facilidades que disponen desperdicios en su facilidad y no reciben desperdicios peligrosos de lugares fuera de la misma. La Regla II-805 D (2) aplica únicamente a solicitantes que tratan, almacenan o disponen en su facilidad de desperdicios peligrosos originados en la misma.

Esta Regla corresponde al 40 CFR Sección 264.70.

El dueño u operador debe conducir estas inspecciones tan frecuentemente como sea necesario para poder identificar problemas a tiempo y corregirlos antes de que puedan causar daño a la salud humana o al ambiente.

Este inciso equivale al 40 CFR Sección 264.15 (a) (1) y (2).

Se enmienda la Regla II-802 E en su inciso 2 (d), última oración que leerá:

- 2 (d) Por lo menos, el itinerario de inspección debe incluir los términos y las frecuencias que son requeridas en las Reglas II-809 E, II-810 D, II-811 D, II-812 D, II-812 E, II-814 D y II-815 G, cuando sean aplicables.

Esta oración corresponde a la última oración del 40 CFR Sección 264.15 (b) (4).

La Regla II-802 F (2) será enmendada y leerá como sigue:

- (2) El personal de la facilidad debe aprobar el programa requerido en el párrafo (1) de esta Regla dentro de uno de los siguientes plazos: dentro de seis meses a partir de la fecha de vigencia de esta reglamentación; dentro de seis meses a partir de la fecha de empleo, nombramiento en otra facilidad o que se le asigne a una nueva posición en una facilidad, el plazo que resultase mayor. Aquella persona empleada después de la vigencia de esta reglamentación no puede trabajar en posiciones no supervisadas hasta tanto no haya aprobado el programa de entrenamiento requerido por el párrafo (1) de esta Regla.

Este inciso equivale al 40 CFR Sección 264.16 (b).

La Regla II-801 F (b) será enmendada y sustituida por el siguiente texto:

- (b) El dueño u operador de una facilidad que maneja materiales recirculados mencionados en la Regla 606 B (1) (b) y (c) de este reglamento (con excepción de los requisitos de esta Parte que se refieren a la Regla 1103, 1104, 1106, 1107 de la Parte XI de este reglamento).

Este nuevo inciso equivale al 40 CFR Sección 264.1 (g) (2).

Se enmienda la Regla II-802 D (1) (b) para que en lo sucesivo lea:

- (b) El desorden o alteración del desperdicio o equipo, por la entrada no autorizada o inadvertida de personas o ganado dentro de la parte activa de la facilidad, no violará los requisitos de esta Parte.

Este inciso equivale al 40 CFR Sección 264.14 (a) (2).

Se enmienda la Regla II-802 E en su inciso (1) que en lo sucesivo leerá:

- (1) El dueño u operador debe inspeccionar su facilidad para detectar desperfectos en el funcionamiento, deterioro, errores de los operadores y descargas que pudiesen estar causando, o que puedan conducir a que ocurra uno de los siguientes:

- (a) El escape de constituyentes de desperdicios peligrosos hacia el medio ambiente o

- (b) Una amenaza a la salud humana.



-V-

40 CFR 264

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTES VIII - II



Se enmienda la Regla 707 E para que en lo sucesivo lea como sigue:

Regla 707 E Un transportador deberá limpiar cualquier descarga de desperdicio peligroso que ocurra durante la transportación o deberá tomar aquella acción que sea requerida o aprobada por la Junta para que la descarga de desperdicio peligroso no presente más un peligro a la salud humana o al ambiente.

Esta regla es equivalente al 40 CFR Sección 263.31.

Se enmienda la Regla 707 B (2) para que en lo sucesivo lea como sigue:

Regla 707 B 2. En el caso de una descarga de desperdicios peligrosos durante la transportación, el transportador debe tomar la acción inmediata apropiada para proteger la salud humana y el ambiente (Ejemplo: notificar las autoridades locales, represar el área de la descarga o utilizar equipo de combatir incendios).

Esta regla es equivalente al 40 CFR Sección 263.30 (a).

Se enmienda la Regla 707 B (1) para que en lo sucesivo lea como sigue:

Regla 707 B 1. Un transportador por aire, carretera o agua que tenga una descarga de desperdicios peligrosos debe:

- a. Inmediatamente comunicarse por teléfono con la Oficina de la Policía Local, la Defensa Civil, la Junta de Calidad Ambiental y el Centro Nacional de Reacción (utilizando su número de teléfono de 24 horas libres de cargo - 800-424-8802 ó 202-426-2675) y proveerá la siguiente información:

Esta regla es equivalente al 40 CFR Sección 263.30 (c). Los incisos (a) hasta el (i) de esta Regla 707 B (1) serán los incisos (i) hasta el (ix).

Se enmienda la Regla 706 D (3) para que en lo sucesivo lea como sigue:

Regla 706 D 3. Si el desperdicio peligroso no puede ser entregado de acuerdo al párrafo (2) de esta Regla 706 D, el transportador deberá comunicarse con el generador para recibir nuevas instrucciones y deberá revisar el manifiesto de acuerdo con las instrucciones del generador.

Esta regla es equivalente al 40 CFR Sección 263.21 (b).

Se enmienda la Regla 504 C (2) para que en lo sucesivo lea como sigue:

Regla 504 C 2. Para embarques enviados a la facilidad designada por agua (embarque a granel), cada transportador por agua (embarque a granel) deberá retener una copia del documento de embarque conteniendo toda la información requerida en la Regla 706 E (2) por un periodo de tres (3) años a partir de la fecha en que el desperdicio peligroso fue aceptado por el transportador inicial.

Esta regla es equivalente al 40 CFR Sección 263.22 (b).

Se enmienda la Regla 505 C para que en lo sucesivo lea como sigue:

Regla 505 C Los periodos de retención a que se refiere en esta parte serán extendidos automáticamente durante el curso de cualquier acción de litigio que no haya sido resuelta relacionada con la actividad reglamentada o según sea requerido por la Junta.

Esta regla es equivalente al 40 CFR Sección 263.22 (e).

3. El transportador lleve éste registro cuando transporte desperdicios hacia la facilidad de reclamación; y
4. El transportador retenga estos registros por un periodo de al menos tres (3) años luego de la finalización o expiración del acuerdo.

Esta regla es equivalente al 40 CFR Sección 263.20 (h).

Se enmienda la Regla 706 D (2) para que en lo sucesivo lea como sigue:

- Regla 706 D 2. El transportador deberá entregarle la cantidad completa de desperdicios peligrosos que ha aceptado del generador o transportador a:
- a. La facilidad designada anotada en el manifiesto; o
 - b. La facilidad alterna designada, si el desperdicio peligroso no puede ser entregado a la facilidad designada porque una emergencia impida la entrega; o
 - c. El próximo transportador designado; o
 - d. El lugar fuera de Puerto Rico designado por el generador.

Esta regla es equivalente al 40 CFR Sección 263.21 (a).

3. Devolver una copia firmada del manifiesto al generador.

Esta regla es equivalente al 40 CFR Sección 263.20 (g) (1), (2) y (3).

Se enmienda la Regla 706 para añadir lo siguiente como la Regla 706 G:

Regla 706 G Un transportador que transporte desperdicios peligrosos de un generador que genera mas de 100 kg. pero menos de 1000 kg. de desperdicios peligrosos en un mes calendario no necesita cumplir con los requisitos de esta regla o de la Regla 504 C, siempre y cuando:

1. El desperdicio sea transportado conforme a un acuerdo de reclamación según es provisto en la Regla 703 G;
2. El transportador recopile, en una bitácora o documento de embarque, la siguiente información para cada embarque:
 - a. El nombre, dirección y número de identificación de la APA del generador del desperdicio;
 - b. La cantidad de desperdicio aceptado;
 - c. Toda la información de embarque requerida por el Departamento de Transportación Federal;
 - d. La fecha que el desperdicio fue aceptado; y

Se enmienda la Regla 706 C (1) (b) para que en lo sucesivo lea como sigue:

Regla 706 C 1. b. El transportador que almacene embarques de desperdicios peligrosos con manifiesto, en receptáculos que cumplan con los requisitos de la Regla 704 A, en una facilidad de transferencia por un periodo de 10 días o menos no está sujeto a reglamentación bajo las Partes VIII-I, VIII-II y IX-I de este reglamento relacionadas con el almacenamiento de esos desperdicios.

Esta regla es equivalente al 40 CFR Sección 263.12.

Se enmienda la Regla 706 E (5) para que en lo sucesivo lea como sigue:

Regla 706 E 5. Una copia del documento de embarque o del manifiesto es retenida por cada transportador por agua de acuerdo con la Regla 504 C.

Esta regla es equivalente al 40 CFR Sección 263.20 (e) (5).

Se enmienda la Regla 706 F (1), (2) y (3) para que en lo sucesivo lea como sigue:

- Regla 706 F 1. Indicar en el manifiesto la fecha en que el desperdicio peligroso salió de Puerto Rico; y
2. Firmar el manifiesto y retener una copia de acuerdo con la Regla 504 C; y

Se enmienda la Regla 706 A (3) para que en lo sucesivo lea como sigue:

- Regla 706 A 3. Un transportador de desperdicios peligrosos también debe cumplir con las Partes V y VII, Normas Aplicables a Generadores de Desperdicios Peligrosos, si:
- a. Transporta desperdicios peligrosos hacia Puerto Rico desde el extranjero; o
 - b. Mezcla desperdicios peligrosos de diferentes descripciones de embarque, según el Departamento de Transportación Federal, colocándolos en un solo receptáculo.

Esta regla es equivalente al 40 CFR Sección 263.10 (c).

Se enmienda la Regla 706 A (5) para que en lo sucesivo lea como sigue:

- Regla 706 A 5. a. Un transportador no puede transportar desperdicios peligrosos sin haber recibido un número de identificación de la APA.
- b. Un transportador que no haya recibido un número de identificación de la APA puede obtenerlo solicitándolo a la APA mediante la Forma Federal 8700-12. Luego de recibir la solicitud, la APA le asignará un número de identificación al transportador.

Esta regla es equivalente al 40 CFR Sección 263.11.

reglamentación del "DOT" es aplicable completamente a sus actividades y son exigidas y ejecutadas por "DOT". Esta regulación está codificada en el Título 49, Código de Reglamentos Federales, Subcapítulo C.

La JCA y "DOT" trabajan juntos para desarrollar normas para los transportadores de desperdicios peligrosos para evitar requisitos conflictivos. Excepto para los transportadores de embarques a granel de desperdicios peligrosos por agua, un transportador que cumpla con todos los requisitos aplicables del 49 CFR Partes 171 hasta la 179 y los requisitos de las Reglas 706 A y 707 E estará en cumplimiento con esta parte.

Independientemente de la acción de "DOT", la JCA mantiene su autoridad para ejecutar esta reglamentación.

Esta enmienda es equivalente al 40 CFR Sección 263.10 (a) (Nota).

Se enmienda la Regla 706 A (2) para que en lo sucesivo lea como sigue:

Regla 706 A 2. Estos requisitos no aplican a la transportación de desperdicios peligrosos en su facilidad por generadores o por dueños u operadores de facilidades de manejo de desperdicios peligrosos con permiso.

Esta regla es equivalente al 40 CFR Sección 263.10 (b).

Se enmienda la Regla 706 A para que en lo sucesivo lea como sigue:

Regla 706 A Nota: Los requisitos establecidos en las Partes V y VII establecen las responsabilidades de los generadores y transportadores de desperdicios peligrosos en el manejo y transportación de ese desperdicio. En este reglamento, la Junta de Calidad Ambiental ha adoptado la reglamentación del Departamento de Transportación Federal "DOT" que regula la transportación de materiales peligrosos. Esta reglamentación regula, entre otras cosas, rótulos, marcas, utilización de envases apropiados y el informar descargas. La Junta de Calidad Ambiental ha adoptado esta reglamentación para cumplir su obligación de promulgar reglamentación que proteja la salud humana y el ambiente en la transportación de desperdicios peligrosos. La adopción por la Junta de esta reglamentación del "DOT" asegura la consistencia con los requisitos de esa agencia y evita la duplicidad y posibles conflictos con respecto a esta materia. Esta reglamentación aplica tanto a la transportación de desperdicios peligrosos interestatal como a la transportación en la isla.

"DOT" ha revisado su reglamentación sobre la transportación de materiales peligrosos para cubrir la transportación de desperdicios peligrosos y para reglamentar la transportación intra e interestatal de desperdicios peligrosos. Los transportadores de desperdicios peligrosos están advertidos de que la

- (b) Todas las unidades de manejo de desperdicios sólidos deberán cumplir con los requisitos de la Regla II-806 L. Los embalses superficiales, montículos para desperdicios, unidades de tratamiento en el terreno o relleno de desperdicios peligrosos que hayan recibido desperdicios peligrosos después de julio 26 del 1982 (en lo sucesivo "unidad reglamentada") deberán satisfacer los requisitos de la Regla II-806 B (1) - Regla II-806 K, en vez de la Regla II-806 L para propósitos de detectar, caracterizar y responder a las descargas al acuífero superior. Los requisitos de responsabilidad financiera de la Regla II-806 L aplican a las unidades reglamentadas.

Esta Regla II 806-A (1) corresponde al 40 CFR Sección 264.90 (a) (1) y (2).

Se enmienda la Regla II-806 A (2) incisos (a) y (b) para que lea como sigue:

- (2) La (s) unidad o unidades reglamentadas del dueño u operador no están sujetas a reglamentación por las descargas al acuífero superior bajo esta Regla si:
- (a) El dueño u operador queda exento según la Regla II-801; u
 - (b) Opera una unidad donde la Junta encuentra:
 - (i) Que se trata de una estructura de ingeniería,
 - (ii) Que no recibe o contiene desperdicios líquidos o desperdicios conteniendo líquidos libres,

- (iii) Está diseñada y funciona para excluir líquidos, precipitación y otras escorrentías a la facilidad y de la facilidad,
- (iv) Posee ambas capas de contención, interna y externa, encerrando el desperdicio,
- (v) Posee un sistema de detección de escapes construido en cada una de las capas de contención,
- (vi) El dueño u operador proveerá funcionamiento continuo y mantenimiento a estos sistemas de detección de escapes durante la vida activa de la unidad y durante los períodos de cierre y de cuidado de cierre posterior, y
- (vii) A un margen adecuado de certeza, no permitirá constituyentes peligrosos migrar más allá de la capa exterior de contención antes de que termine el período de cuidado de cierre posterior.

Esta Regla II 806-A (2) (a) y (b) es equivalente al 40 CFR Sección 264.90 (b).

Se enmienda la Regla II-806 (A) (2) para añadirle un inciso (e) que lee como sigue:

- (e) El diseña y opera un montículo cumpliendo con la Regla II-812 A (3).

Este nuevo inciso equivale al 40 CFR Sección 264.90 (b) (5).

Se enmienda la Regla II-806 J en su inciso (5) que en lo sucesivo leerá:

- (5) Por lo menos anualmente, el dueño u operador determinará el flujo del agua subterránea y la dirección en la cual fluye dentro del acuífero superior.

Este inciso equivale al 40 CFR Sección 264.99 (e).

Se enmienda la Regla II-806 para añadirle un inciso L que lee como sigue:

Regla II-806 L Acción Correctiva para las Unidades de Manejo de Desperdicios Sólidos.

- (1) El dueño u operador de una facilidad solicitando un permiso para el tratamiento, almacenaje y disposición de desperdicios peligrosos deberá establecer aquella acción correctiva necesaria para proteger la salud humana y el ambiente de toda descarga de desperdicios peligrosos o constituyentes provenientes de cualquier unidad de manejo de desperdicio sólido en la facilidad, independientemente del tiempo en que el desperdicio fue colocado en dicha unidad.
- (2) El permiso deberá especificar la acción correctiva. El permiso deberá incluir además un plan de cumplimiento para dicha acción correctiva (cuando tal acción correctiva no pueda ser completada antes de expedir el permiso) y asegurar la responsabilidad financiera de completar la acción correctiva.

Este nuevo inciso corresponde con el 40 CFR Sección 264.101.

Se enmienda la Regla II-809 F para substituir su inciso (3) y añadir un nuevo inciso (4). Estos leerán como sigue:

(3) Areas de almacenamiento de receptáculos que solamente contienen desperdicios sin líquidos libres no necesitan un sistema de contención según definido en el párrafo (2) de esta regla, excepto como se provee en el párrafo (4) de esta regla o que se provea que:

(a) El área de almacenamiento tenga un declive o esté diseñada y operada de manera que drene y remueva el líquido que resulte de la precipitación, o

(b) Los receptáculos estén elevados o de otra manera protegidos del contacto con líquidos acumulados.

(4) Areas de almacenamiento de receptáculos que contienen desperdicios descritos o listados abajo y que no contienen líquidos libres necesitaran un sistema de contención según definido en el párrafo (2) de esta regla:

(a) F020, F021, F022, F023, F026 Y F027.

(b) (Reservado)

Estos incisos equivalen al 40 CFR Sección 264.175 (c) y (d).

Se enmienda la Regla II-810 D (3) para añadir un segundo párrafo que lee como sigue:

(3)

En el caso de desperdicios peligrosos clasificados con los siguientes números de la APA, F020, F021, F022, F023, F026 y F027, el plan de contingencia debe también

incluir los procedimientos para responder a derrames o filtraciones de estos desperdicios de los tanques al sistema de contención. Como parte de este procedimiento se debe incluir medidas para la remoción inmediata del desperdicio del sistema y reemplazo o reparación del tanque que esté filtrando.

El párrafo añadido equivale al 40 CFR Sección 264.194 (c) (2).

Se enmienda la Regla II-810 para añadirle un nuevo inciso H que lee como sigue:

Regla II-810 H Requisitos Especiales para Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027.

(1) Además de los requisitos de la Regla II-810, los siguientes requisitos aplican a los tanques para el tratamiento o almacenamiento de desperdicios peligrosos F020, F021, F022, F023, F026 y F027.

(a) Los tanques deberán tener unos sistemas diseñados y operados para detectar y contener adecuadamente derrames o filtraciones. El diseño y funcionamiento de cualquier sistema de contención deberá tomar en consideración todos los factores relevantes incluyendo:

(i) Capacidad del tanque;

(ii) El volumen y características de los desperdicios almacenados y tratados en el tanque;

(iii) Método de recolección de derrames o filtraciones;

(iv) Diseño y materiales de que está hecho el tanque y el sistema de contención; y

(v) La necesidad de prevenir precipitación y escorrentías de entrar en el sistema.

(b) Como parte del plan de contingencia requerido por la Regla II-804, el dueño u operador deberá especificar los procedimientos para responder a los derrames o filtraciones del tanque al sistema de contención, necesarios para proteger la salud humana y el ambiente. Estos procedimientos deberán incluir medidas para la remoción inmediata de los desperdicios del sistema, y reemplazos o reparación del tanque que esté filtrando.

Este nuevo inciso equivale al 40 CFR Sección 264.200 (a) (1) y (2).

Se enmienda el párrafo introductorio de la Regla II-811 B (1) para que lea como sigue:

Regla II-811 B Requisitos de Diseño y Operación

(1) Cualquier embalse superficial que no está cubierto bajo las disposiciones de la Regla II-811 B (3) o la Regla I-817 B, necesitará un revestimiento para todas las porciones del embalse (excepto para las porciones ya existentes de dicho embalse). El revestimiento deberá ser diseñado, construido e instalado para evitar la migración de algún desperdicio fuera del embalse hacia el subsuelo adyacente, o hacia el agua subterránea o superficial, en

cualquier momento durante la vida activa del embalse (incluyendo el período de cierre). El revestimiento, estará construido de materiales que permitan que los desperdicios migren hacia dentro del mismo (pero no hacia el subsuelo adyacente al embalse, ni hacia el agua subterránea o superficial) durante la vida activa de la facilidad, siempre y cuando que el embalse vaya a ser cerrado de conformidad con la Regla II-811 F (1) (a). En cuanto a embalses que serán cerrados de acuerdo con la Regla II-811 F (1) (b), el revestimiento será construido de materiales que eviten que los desperdicios migren hacia dentro del mismo durante la vida activa de la facilidad. El revestimiento será:

Este nuevo párrafo es equivalente al 40 CFR Sección 264.221 (a).

Se enmienda la Regla II-811 B (3) para que lea como sigue:

- (3) El dueño u operador de cada embalse superficial nuevo, de cada unidad de embalse superficial nueva en una facilidad existente, de cada reemplazo de una unidad de embalse superficial existente y de cada una de las expansiones laterales de alguna unidad de embalse superficial existente, deberá instalar dos o más revestimientos y un sistema de recolección de lixiviación entre dichos revestimientos. Los revestimientos y el sistema de recolección de lixiviación deberán proteger la salud humana y el ambiente. Este requisito aplicará a todo desperdicio recibido después de otorgado el permiso. El requisito para la instalación de dos o más revestimientos será satisfecho por la instalación de un revestimiento superior diseñado, operado y construido de materiales que eviten la migración de cualquier constituyente hacia dentro de tal revestimiento durante el período en que dicha facilidad se mantenga en operación (incluyendo

cualquier período de monitoría de cierre posterior) y un revestimiento inferior diseñado, operado y construido para evitar la migración de cualquier constituyente hacia dicho revestimiento durante tal período. Para propósitos de esta Regla, el revestimiento inferior tendrá que estar construido de una capa de arcilla recompactada de un espesor de por lo menos 3 pies u otro material natural con una permeabilidad de no más de 1×10^{-7} centímetros por segundo.

Este nuevo inciso (3) equivale al 40 CFR Sección 264.221 (c).

Se enmienda la Regla II-811 B (4) para que lea como sigue:

- (4) El párrafo (3) de esta Regla no aplicará si el dueño u operador le demuestra a la Junta y ésta encuentra que para dicho embalse superficial, las prácticas alternas de operación y de diseño junto con las características de la localización, evitarían la migración de cualquier constituyente peligroso hacia el agua subterránea o superficial al menos tan efectivamente como lo harían los revestimientos y los sistemas de recolección de lixiviación.

Este nuevo inciso equivale al 40 CFR Sección 264.221 (d).

Se enmienda la Regla II-811 B (5) para que en lo sucesivo lea:

- (5) La Junta podrá otorgar una dispensa del requisito de doble revestimiento establecido en el inciso (3) de esta Regla para cualquier facilidad que es un relleno de un solo desperdicio peligroso o "monofill", si:

- (a) El "monofill" contiene solo desperdicios peligrosos provenientes de controles de emisión de hornos de fundición o fundición de metales en arenal y dichos desperdicios no contienen constituyentes que conviertan los desperdicios en peligrosos por otras razones que no sean las características de toxicidad por el procedimiento de extracción (EP toxicity) dispuestas en la Regla 604 D; y
- (b) (i) (A) El "monofill" posee por lo menos un revestimiento del cual no existe evidencia de que esté filtrando. Para propósitos de esta Regla, el término "revestimiento" significa revestimiento diseñado, construido, instalado y operado para evitar que los desperdicios peligrosos pasen hacia el revestimiento en cualquier momento durante la vida activa de la facilidad, o un revestimiento diseñado, construido, instalado y operado para evitar que los desperdicios peligrosos migren más allá del revestimiento al terreno superficial adyacente, o al agua subterránea o superficial, en cualquier momento durante la vida activa de la facilidad. En caso de que cualquier embalse superficial esté exento de los requisitos del inciso (3) de esta Regla, a base de un revestimiento diseñado, construido, instalado y operado para evitar que los desperdicios peligrosos migren más allá del revestimiento, al cierre de dicho embalse, el dueño u operador deberá remover o descontaminar todo residuo de desperdicio, todo material de revestimiento contaminado y terreno contaminado hasta donde sea factible. Si todo el terreno contaminado no es removido o descontaminado, el dueño u operador de dicho embalse deberá cumplir

con los requisitos apropiados de cierre posterior, incluyendo pero no limitado a monitoría de agua subterránea y acción correctiva;

(B) El "monofill" está localizado a más de un cuarto de milla de la fuente subterránea de agua potable; y

(C) El "monofill" cumple con los requisitos generalmente aplicables de monitoría de agua subterránea para facilidades con permisos bajo esta parte y la Sección 3005 (c) de RCRA; o

(ii) El dueño u operador demuestre que el "monofill" está localizado, diseñado y operado de manera tal que asegure que no habrá migración de algún constituyente peligroso hacia el agua subterránea o superficial en algún momento futuro.

Este nuevo inciso equivale al 40 CFR Sección 264.221 (e).

Se enmienda la Regla II-811 B para añadirle los incisos (6), (7) y (8) que leerán como sigue:

(6) El embalse superficial será diseñado, construido, mantenido y operado para evitar el desbordamiento resultante de operaciones normales o anormales; sobreabastecimiento; acción del viento y de oleajes; lluvia; escorrentías hacia la facilidad; desperfectos en el funcionamiento del equipo para controlar el nivel del contenido del embalse, las alarmas y otro equipo; y el error humano.

(7) El embalse superficial tendrá diques diseñados, contruidos y mantenidos con la suficiente integridad estructural para evitar una falla masiva de los diques. Para asegurar la integridad estructural, no se presumirá que el sistema de revestimiento funcionará sin derrames durante la vida activa de la unidad.

(8) La Junta especificará en el permiso todas las prácticas de diseño y operación necesarias para asegurar que se cumpla con los requisitos de esta Regla.

Estos incisos equivalen al 40 CFR Sección 264.221 (f)-(h), anteriormente (c) - (e).

La Regla II-811 C se elimina y permanecerá reservada en lo sucesivo.

II-811 C - Reservada.

Esta regla equivale al 40 CFR Sección 264.222.

Se enmienda la Regla II-811 D (2) incisos (a), (b) y (c).
Se elimina el inciso (d). Estos leerán como sigue:

D (2) (a) Deterioro, desperfectos, u operación indebida o impropia de los sistemas de control contra el desbordamiento;

(b) Una baja súbita en el nivel del contenido del embalse; y

(c) Erosión severa o cualquier otra señal de deterioro de los diques u otros aparatos de contención.

Esta regla equivale al 40 CFR Sección 264.226 (b) (1)-(3).

Se enmienda la Regla II-811 F (2) para eliminar el inciso (b). Los anteriores incisos (c) y (d) se reasignan como incisos (b) y (c) respectivamente y también el inciso (d) se omite. Estos leerán como sigue:

- (b) Efectuar el mantenimiento y cotejar el sistema de monitoria del agua subterránea y cumplir con todo otro requisito aplicable de la Regla II-806; y
- (c) Evitar la erosión de la cubierta final o cualquier otro daño a ésta resultante de "escorrentía" desde o hacia dicha cubierta.

Estos incisos equivalen al 40 CFR Sección 264.228 (b) (2) y (3).

La Regla II-811 F (4) se elimina.

Esta Regla equivale al 40 CFR Sección 264.228 (d).

Se enmienda la Regla II-811 para añadirle un inciso I que lee como sigue:

Regla II-811 I- Requisitos Especiales para Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027

- (1) Los desperdicios peligrosos F020, F021, F022, F023, F026 y F027 no deberán ser colocados en un embalse superficial a menos que el dueño u operador opere dicho embalse de acuerdo con el plan de manejo para dichos desperdicios aprobado por la Junta conforme a las normas establecidas en esta Regla y cualquier otro requisito aplicable de esta parte. Los factores a ser considerados son:

- a) El volumen, y las características físicas y químicas de los desperdicios, incluyendo el potencial que poseen para migrar a través del terreno, o ser volátiles o escapar hacia la atmósfera;
 - b) Las propiedades atenuativas de los terrenos subyacentes y circundantes u otros materiales;
 - c) Las propiedades de movilización de otros materiales dispuestos junto con estos desperdicios; y
 - d) La efectividad de tratamiento adicional, diseño o técnicas de monitoría.
- (2) La Junta determinará si son necesarios diseños adicionales y requisitos de operación y monitoría para el manejo de desperdicios peligrosos F020, F021, F022, F023, F026 y F027 en embalses superficiales, de manera que se reduzca la posibilidad de que estos desperdicios migren hacia el agua subterránea o superficial o al aire, para así proteger la salud humana y el ambiente.

Este nuevo inciso I corresponde al 40 CFR Sección 264.231.

La Regla II-812 C se elimina y en lo sucesivo permanecerá reservada.

II-812 C - Reservada.

Esta Regla equivale al 40 CFR Sección 264.252.

La Regla II-812 D se elimina y en lo sucesivo permanecerá reservada.

II-812 D - Reservada

Esta regla equivale al 40 CFR Sección 264.253.

Se enmienda la Regla II-812 E (2) para eliminar el inciso (b), los anteriores incisos (c) y (d) se reasignan como incisos (b) y (c) respectivamente y también el inciso (d) se omite. Estos leerán como sigue:

- (b) Funcionamiento adecuado del sistema de control de dispersión a causa del viento, donde el mismo esté presente, y
- (c) Cuando exista un sistema de recolección y remoción de lixiviación, se inspeccionará para la presencia de lixiviación y el funcionamiento adecuado del mismo.

Estos incisos equivalen al 40 CFR Sección 264.254 (b) (2) y (3).

Se enmienda la Regla II-812 G para que lea como sigue:

Regla II-812 G - Requisitos Especiales para Desperdicios Incompatibles.

- (1) Desperdicios incompatibles o desperdicios y materiales incompatibles, (Véase el Apéndice V de esta parte para ejemplos) no podrán colocarse en el mismo montículo a menos que se haya cumplido con la Regla II-812 G (2).

- (2) Un montículo de desperdicios peligrosos que es incompatible con cualquier desperdicio u otro material que estuviera almacenado en lugar cercano en receptáculos, en otro montículo, tanques abiertos, o embalses superficiales deberá estar separado de otros materiales o protegidos de éstos por medio de algún dique, lisera, muralla u otro mecanismo.
- (3) No podrán colocarse desperdicios peligrosos sobre la misma base en la cual previamente se había almacenado desperdicios o materiales incompatibles, a menos que la base haya sido suficientemente descontaminada como para asegurar que se cumpla con la Regla II-802 G (2).

Esta regla equivale al 40 CFR Sección 264.257.

Se enmienda la Regla II-812 para añadir un nuevo inciso I que lee como sigue:

Regla II-812 I - Requisitos Especiales para Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027.

- (1) Los desperdicios peligrosos F020, F021, F022, F023, F026 y F027 no serán colocados en montículos de desperdicios no cubiertos (según descritos en la Regla II-812 A (3)) a menos que el dueño u operador, opere dicho montículo de acuerdo con el plan de manejo para estos desperdicios aprobado por la Junta conforme las normas establecidas en esta Regla y en armonía con cualquier otro requisito aplicable de esta parte. Los factores a ser considerados son:

- (a) El volumen, y las características físicas y químicas de los desperdicios, incluyendo el potencial que poseen los mismos para migrar a través del terreno, o ser volátiles o escapar hacia la atmósfera;
 - (b) Las propiedades atenuativas de los terrenos subyacentes y circundantes u otros materiales;
 - (c) Las propiedades de movilización de otros materiales dispuestos en conjunto con estos desperdicios; y
 - (d) La efectividad de tratamiento adicional, diseño o técnicas de monitoría.
- (2) La Junta determinará si son necesarios diseños adicionales y requisitos de operación y de monitoría para los montículos que manejan desperdicios peligrosos F020, F021, F022, F023, F026 y F027 de manera que se reduzca la posibilidad de que estos desperdicios migren hacia el agua subterránea o superficial o al aire, para así proteger la salud humana y el ambiente.

Este nuevo inciso I equivale al 40 CFR Sección 264.259.

Se enmienda la Regla II-813 para añadir un nuevo inciso K que leerá como sigue:

Regla II-813 K Requisitos Especiales para Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027.

- (1) Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027 no deberán ser colocados en una unidad de tratamiento en el terreno a menos que el dueño u operador opere dicha facilidad según el plan de manejo para

estos desperdicios aprobado por la Junta de acuerdo a las normas establecidas en esta Regla y en armonía con cualquier otro requisito aplicable de esta parte. Los factores a ser considerados son:

- (a) El volumen y las características físicas y químicas de los desperdicios incluyendo el potencial que poseen los mismos para migrar a través del terreno, o ser volátiles o escapar hacia la atmósfera;
 - (b) Las propiedades atenuativas de los terrenos subyacentes y circundantes u otros materiales;
 - (c) Las propiedades de movilización de otros materiales dispuestos junto con estos desperdicios; y
 - (d) La efectividad de tratamiento adicional, diseño o técnicas de monitoría.
- (2) La Junta determinará si son necesarios diseños adicionales y requisitos de operación y monitoría para las facilidades de tratamiento en el terreno que manejan desperdicios peligrosos F020, F021, F022, F023, F026 y F027 de manera que se reduzca la posibilidad de que estos desperdicios migren hacia el agua subterránea o superficial o al aire, para proteger la salud humana y el ambiente.

Este nuevo inciso K equivale al 40 CFR Sección 264.283.

Se enmienda el párrafo introductorio de la Regla II-814 B (1) para que lea como sigue:

Regla II-814 B Requisitos de Diseño y Operación

- (1) Cualquier relleno sanitario no cubierto bajo las disposiciones del inciso (3) de esta Regla o la Regla I 816 (B), deberá tener un sistema de revestimiento para todas las porciones del relleno sanitario (excepto para aquellas porciones ya existentes de dicho relleno sanitario). El sistema de revestimiento deberá tener:

Esta Regla II-814 B (1) es equivalente al 40 CFR Sección 264.301 (a).

Se enmienda la Regla II 814 B para sustituir el lenguaje de sus incisos (3), (4) y (5) que en lo sucesivo leerán:

- (3) El dueño u operador de cada nuevo relleno sanitario, de cada nueva unidad de relleno sanitario en una facilidad ya existente, de cada reemplazo y de cada expansión lateral de una unidad de relleno sanitario existente, deberá instalar dos o más revestimientos y un sistema de recolección de lixiviación sobre y entre los revestimientos. Los revestimientos y los sistemas de recolección de lixiviación deberán proteger la salud humana y el ambiente. El requisito de un relleno sanitario con dos o más revestimientos se cumplirá con la instalación de un revestimiento superior diseñado, operado y construido de materiales que eviten la migración de constituyentes a dicho revestimiento durante el período que dicha facilidad se mantenga en operaciones (incluyendo cualquier período de monitoría de cierre posterior), y un revestimiento inferior diseñado, operado y construido para evitar la migración de constituyentes a través de

dicho revestimiento durante tal período. Para propósitos de esta Regla, un revestimiento inferior se considerará que satisface dicho requisito si está construido de una capa de arcilla recompactada de por lo menos 3 pies de espesor u otro material natural con una permeabilidad de no más de 1×10^{-7} centímetros por segundo.

- (4) El inciso (3) de esta Regla no será de aplicación si el dueño u operador le demuestra a la Junta y ésta, a su vez encuentra para dicho relleno sanitario, que diseños y prácticas de operación alternas, junto con las características de localización evitarían la migración de constituyentes peligrosos hacia el agua subterránea o superficial por lo menos tan efectivamente como lo harían dichos revestimientos y sistemas de recolección de lixiviación.
- (5) La Junta podrá otorgar una dispensa del requisito de doble revestimiento establecido en el inciso (3) de esta Regla para cualquier facilidad que es un relleno de un solo desperdicio peligroso o "monofill", si:
 - (a) El "monofill" contiene sólo desperdicios peligrosos provenientes de controles de emisión de hornos de fundición o fundición de metales en arenal y dichos desperdicios no contienen constituyentes que suministren desperdicios peligrosos por otras razones que las características de toxicidad por el procedimiento de extracción (EP Toxicity); y

(b) (i) (A) El "monofill" posee por lo menos un revestimiento del cual no hay evidencia de que se encuentre filtrando;

(B) El "monofill" está localizado a más de un cuarto de milla de una fuente subterránea de agua potable; y

(C) El "monofill" cumple con los requisitos generalmente aplicables de monitoría de agua subterránea para facilidades con permisos bajo esta parte y la Sección 3005 (c) de RCRA; o

(ii) El dueño u operador demuestre que el "monofill" está localizado, diseñado y es operado de manera tal que asegure que no habrá migración de constituyentes peligrosos hacia el agua subterránea y superficial en algún momento futuro.

Estos nuevos incisos (3), (4) y (5) equivalen al 40 CFR Sección 264.301 incisos (c), (d) y (e) respectivamente.

Se enmienda la Regla II-814 B, sus anteriores incisos (3), (4), (5), (6) y (7) se re-asignan como incisos (6), (7), (8), (9) y (10) respectivamente. Estos leerán como sigue:

(6) El dueño u operador deberá diseñar, construir, operar y mantener un sistema de control de escorrentías hacia el relleno sanitario capaz de evitar su flujo hacia la parte activa del relleno sanitario, durante el período de máxima descarga producida por lo menos por una tormenta de frecuencia de 25 años.

- (7) El dueño u operador deberá diseñar, construir, operar y mantener un sistema de manejo de escorrentías provenientes desde el área del relleno sanitario, para recoger y controlar por lo menos el volumen de agua producida por lluvia de 24 horas por una tormenta con una frecuencia de 25 años.
- (8) Facilidades de recolección y retención (ejemplo: tanques o represas) asociadas con el sistema de control de escorrentías desde y hacia la facilidad serán vaciadas o de otra manera manejadas prontamente después de cualquier tormenta para mantener la capacidad de diseño del sistema.
- (9) Si el relleno sanitario contiene cualquier materia particulada, que pueda estar sujeta a la dispersión por el viento, el dueño u operador deberá cubrir la misma, o de otra manera, manejará el relleno sanitario para controlar la dispersión por el viento.
- (10) La Junta especificará en el permiso toda las prácticas de diseño y operación necesarias para asegurar el cumplimiento con los requisitos de esta Regla.

Estos incisos equivalen al 40 CFR Secciones 264.301 (f)-(j).

Se elimina la Regla II-814 C y en lo sucesivo permanecerá reservada.

Regla II-814 C Reservada.

Esta regla equivale al 40 CFR Sección 264.302.

Se enmienda la Regla II-814 D (2) para eliminar el inciso (b). Los anteriores incisos (c) y (d) se re-asignan como incisos (b) y (c) respectivamente y se omite el inciso (d). Estos leerán como sigue:

- (b) Buen funcionamiento de los sistemas de control de dispersión por el viento, donde los hubiera; y
- (c) La presencia de lixiviación dentro del sistema y el buen funcionamiento de los sistemas de recolección y remoción de lixiviación, donde los hubiera.

Estos incisos equivalen al 40 CFR Secciones 264.303 (b) (2) y (b) (3).

Se enmienda la Regla II-814 F (2) para eliminar el inciso (b); los anteriores incisos (c), (d), (e) y (f) se re-asignan como los incisos (b), (c), (d) y (e) respectivamente y el inciso (d) se omite. Estos leerán como sigue:

- (b) Continuar operando el sistema de recolección y remoción de lixiviación hasta que ésta ya no sea detectada;
- (c) Continuar el mantenimiento y cotejo del sistema de monitoría de agua subterránea y cumplir todos los requisitos aplicables de la Regla II-806;
- (d) Evitar las escorrentías hacia y desde la facilidad para que no causen erosión u otros daños a la cubierta final;
y

- c. Nombre, número de identificación y dirección de cada generador del cual se ha recibido desperdicio sólido peligroso;
- d. Una descripción de cada desperdicio sólido peligroso por su número de identificación y con un estimado de la cantidad enviada a cada facilidad designada;
- e. Nombre, número de identificación y dirección de las facilidades para desperdicios sólidos peligrosos a las cuales cada uno de esos desperdicios ha sido entregado;
- f. Una explicación de todas las ocasiones en que el desperdicio sólido peligroso ha sido recibido por el transportador, pero no ha sido entregado a la facilidad designada para desperdicio sólido peligroso o ha sido devuelto al generador; y
- g. Certificación de acuerdo a los requisitos de la Junta firmada por el dueño u operador o su representante debidamente autorizado.

Se enmienda la Regla 503 A (3) para que lea como sigue:

- 3. El dueño u operador de una facilidad que recibe desperdicio sólido peligroso para tratamiento, almacenamiento o disposición debe preparar y someter a la Junta un informe cada dos años, no más tarde del 1^{ro} de marzo de cada año terminado en número par. El informe debe incluir todo el desperdicio sólido peligroso almacenado, tratado o dispuesto durante el año calendario anterior y debe incluir la siguiente información:

(3) Una descripción del método de tratamiento, almacenamiento o disposición usado para cada uno de tales desperdicios sólidos peligrosos;"

j. Una descripción de los esfuerzos realizados durante el año para reducir el volumen y la toxicidad del desperdicio generado.

k. Una descripción de los cambios reales logrados en el año en cuanto al volumen y toxicidad del desperdicio comparado con años anteriores en la medida en que la información esté disponible para años anteriores a 1984.

Esta regla equivale al 40 CFR Sección 262.41.

Se enmienda el primer párrafo de la Regla 503 A (2) para que lea como sigue:

2. Los transportadores deberán preparar y someter a la Junta un informe cada dos años, no más tarde del 1^{ro} de marzo de cada año terminado en número par. El informe debe incluir todo el desperdicio sólido peligroso transportado durante el año calendario anterior y debe incluir la siguiente información:

- a. Nombre del transportador, número de identificación y la dirección o localización;
- b. El nombre y número de teléfono de la persona a quien pueda referirse con relación a la información sometida;

- e. El nombre y número de identificación de cada transportador cuyos servicios fueron utilizados para transportar tal desperdicio a la facilidad designada durante el año que se está informando.
- f. Una descripción del desperdicio de acuerdo al número de identificación de desperdicios peligrosos de la APA, clase de peligrosidad bajo DOT y la cantidad de cada embarque de desperdicio sólido peligroso enviado fuera de la facilidad. Esta información será listada por número de identificación de la APA para cada facilidad fuera de su localización a la cual se envió desperdicio.
- g. Cualquier otra información requerida en los informes de cada dos años de los dueños u operadores de las facilidades para desperdicios sólidos peligrosos; y
- h. Una certificación a tenor con los requisitos de la Junta firmada por el dueño u operador o su representante debidamente autorizado.
- i. Con respecto al desperdicio sólido peligroso dispuesto en su localización, el generador deberá incluir en su informe de cada dos años la siguiente información:
 - (1) Una descripción de cada desperdicio sólido peligroso tratado, almacenado o dispuesto durante el año;
 - (2) La cantidad de cada desperdicio sólido peligroso; y

Se enmienda la Regla 503 A (1) para que lea como sigue:

Regla 503 INFORME DE LA FACILIDAD U OPERACIONES DE LA ACTIVIDAD

A. Informes Cada Dos Años

1. Los generadores que envían sus desperdicios peligrosos a facilidades fuera de su localización tienen que preparar y someter a la Junta un informe cada dos años no más tarde del 1^{ro} de marzo de cada año terminando en número par. El informe deberá abarcar las actividades del generador durante el año calendario anterior, y deberá incluir la siguiente información:
 - a. Nombre del generador, número de identificación y la dirección o ubicación;
 - b. El año calendario cubierto por el informe;
 - c. Nombre y número de teléfono de la persona a quien pueda referirse con relación a la información sometida;
 - d. Nombre, número de identificación y dirección de cada facilidad para desperdicio sólido peligroso fuera de su localización a la cual se envió desperdicio sólido peligroso, si alguno, durante el año; para desperdicio exportado, el informe debe incluir el nombre y dirección de la facilidad extranjera.

3. En adición al registro de operación diario, los dueños u operadores de facilidades de desperdicio sólido peligroso (incluyendo a los generadores que tratan, almacenan, o disponen desperdicio sólido peligroso en su localización) tienen que mantener en su facilidad los siguientes registros adicionales:

- a. Resumen de los informes y detalles de todos los incidentes que requieren implementación de procedimientos de emergencia, según especificado en la Parte II, y en la Parte VIII-I;
- b. Registro y resultados de todas las inspecciones, según requerido en la Parte VIII-I;
- c. Notificación a los generadores confirmando que la facilidad puede legalmente recibir el desperdicio sólido peligroso, en caso de facilidades fuera de su localización;
- d. Registros de las condiciones de operación (temperatura, presión, residuo, tiempo, razón de alimentación, etc.); y
- e. Registro de adiestramientos.

Esta regla equivale al 40 CFR Sección 265.73.

todas las facilidades, esta información tiene que incluir referencias de corroboración de los números de los documentos del manifiesto específico, si el desperdicio estaba acompañado de un manifiesto.

- c. Registros y resultados de análisis de desperdicio y pruebas realizadas según especificadas en las Reglas I-807 I, I-813 C, I-817 C, I-818 C, I-819 C, I-816 F, I-814 B, I-815 E y I-820 B;
- d. Un resumen de los informes y detalles de cada incidente que requiera la implementación del plan de contingencia según especificado en la Regla I-803 E (11) (k);
- e. Registros y resultados de todas las inspecciones según requerido en la Regla I-803 F (4) (excepto que esta información sea necesario conservarla por sólo 3 años);
- f. Monitoría, pruebas o data analítica cuando sea requerido en las Reglas I-804 A, 503 B, I-819 E, I-819 G, I-819 I (4) (a), I-814 C y I-815 F.

(COMENTARIO: Según lo requerido por la Regla 503 B la data sobre monitoría en las facilidades de disposición se mantendrá a través del período de cierre posterior).

- g. Todos los estimados de costo del cierre según la Regla I-806 C, y para las facilidades de disposición, todos los estimados de costo del cierre posterior según la Regla I-806 E.

Parte VI, la descripción deberá incluir el proceso que lo produjo (por ejemplo: cieno seco filtrado procedente de _____, número de Desperdicio Peligroso _____)

(COMENTARIO: Cada desperdicio sólido peligroso anotado en la Parte VI y cada característica sobre desperdicio sólido peligroso definida en la Parte VI, tiene asignado un número de desperdicio sólido peligroso de cuatro (4) dígitos. Este número tiene que ser utilizado para propósitos de mantenimiento de registros e informes. Cuando un desperdicio sólido peligroso es una mezcla de varios desperdicios peligrosos anotados en la Parte VI, o cuando más de una característica de desperdicio sólido peligroso aplica al desperdicio, la descripción del desperdicio tiene que incluir todos los números de desperdicios sólidos peligrosos aplicables).

- (ii) El peso estimado o informado en el manifiesto, o el volumen y la densidad, donde apliquen, en unidades apropiadas de medida.
 - (iii) El método(s) y fecha(s) de tratamiento, almacenamiento o disposición.
- b. La ubicación de cada desperdicio sólido peligroso dentro de la facilidad y la cantidad en cada ubicación. Para facilidades de disposición, la ubicación y cantidad de cada desperdicio peligroso tiene que estar indicada en un mapa o diagrama de cada compartimiento o área de disposición. Para

Se enmienda la Regla 502 C para que en lo sucesivo como sigue:

C. Requisitos para los Dueños y Operadores de las Facilidades para Desperdicios Sólidos Peligrosos

1. Los dueños u operadores de facilidades para desperdicio sólido peligroso (incluyendo los generadores que tratan o almacenan o disponen de desperdicios sólido peligroso en su localización) tienen que mantener en su facilidad un registro diario operacional por escrito (abierto para inspección al personal de la Junta) para anotar la cantidad y tipo de todo desperdicio sólido peligroso que es recibido, tratado, almacenado o dispuesto en la facilidad.
2. La información contenida en ese registro se mantendrá hasta el cierre de la facilidad y deberá incluir, pero sin estar limitada a lo siguiente:
 - a. Una descripción del tipo y cantidad de cada desperdicio sólido peligroso recibido y el método(s) y fecha(s) de su tratamiento, almacenamiento o disposición en la facilidad. Este registro deberá incluir, con respecto a cada desperdicio sólido peligroso recibido lo siguiente:
 - (1) Una descripción del tipo de desperdicio con su nombre común y el número de desperdicio peligroso, según indica la Parte VI de este reglamento aplicable a este desperdicio. La descripción del desperdicio deberá incluir también la forma física del desperdicio, ejemplo: líquido, ceno, sólido o gas envasado. Si el desperdicio no está anotado en la



-VI-

40 CFR 265

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTE VIII - I



- (e) Variaciones permisibles en el diseño del sistema de incineración o en procedimientos de operación; y
- (f) Otros requisitos de operación necesarios para asegurar el cumplimiento de las normas de funcionamiento de la Regla II-815 D.

Este inciso corresponde al 40 CFR Sección 264.345 (b).

Se enmienda la Regla II-815 H para añadirle un comentario.
Este leerá como sigue:

(COMENTARIO: Al momento del cierre, así como durante el periodo de operación, a menos que el dueño u operador pueda demostrar, de acuerdo con la Regla 102 que el residuo removido del incinerador no es un desperdicio peligroso, se convertirá en un generador de desperdicio peligroso y deberá manejar el mismo de acuerdo con los requisitos aplicables de las Partes VII hasta VIII-I y II de esta reglamentación).

Esta regla equivale al 40 CFR Sección 264.351.

el permiso de la facilidad, los requisitos de operación deberán ser aquellos que a juicio de la Junta y basados en juicios de ingeniería, puedan asegurar el cumplimiento con las normas de funcionamiento de la Regla II-815 D.

Este inciso equivale al 40 CFR Sección 264.344 (c) (3).

Se enmienda la Regla II-815 F (2) para que lea en lo sucesivo:

(2) Los requisitos de operación especificarán la composición del desperdicio a ser incinerado (incluyendo variaciones aceptables en las propiedades físicas y químicas del desperdicio a incinerarse que no afecten el cumplimiento con los requisitos de funcionamiento de la Regla II-815 D) a los cuales aplican los requisitos de operación. Para cada desperdicio a ser incinerado, el permiso especificará los límites operacionales aceptables incluyendo las siguientes condiciones:

- (a) Nivel de monóxido de carbono (CO) en el gas que escapa de la chimenea;
- (b) Estimado de alimentación de desperdicio;
- (c) Temperatura de combustión;
- (d) Un indicador apropiado de la velocidad del gas de combustión;

y dibenzofuranos. La EDR se determinará para cada PCOP usando la ecuación en el inciso (1) (a) de esta Regla. Además, el dueño u operador del incinerador tiene que notificar a la Junta su intención de incinerar desperdicios peligrosos F020, F021, F022, F023, F026 & F027.

Estos incisos equivalen al 40 CFR Sección 264.343 (a) (1) y (a) (2).

Se enmienda la Regla II-815 D para añadirle un nuevo inciso (4) que en lo sucesivo leerá:

- (4) Se entenderá como cumplimiento con los requisitos de esta regla, el cumplimiento con los requisitos de operación especificados en el permiso (bajo la Regla II-815 F). Sin embargo, información de que aún cumpliendo con las condiciones del permiso no es suficiente para asegurar el cumplimiento con las normas de funcionamiento de esta regla, será evidencia suficiente que justifique la modificación, remoción o re-emisión del permiso según la Regla I-912 D.

Este nuevo inciso corresponde al 40 CFR Sección 264.343 (d).

Se enmienda la Regla II-815 E (3) (c) para que lea como sigue:

- (3) (c) Para el período inmediatamente posterior a la finalización de la prueba de quemado, y sólo por un período mínimo suficiente para permitir el análisis de muestras, computar datos, y someter los resultados de prueba de quemado por el solicitante, ser revisados los mismos por la Junta y ésta modificar

Se enmienda la Regla II-815 D (1) para que lea como sigue:

- (1) (a) A excepción de lo provisto en el párrafo (1) (b), un incinerador que queme desperdicios peligrosos deberá alcanzar una eficiencia de destrucción y remoción (EDR) de un 99.99% para cada principal constituyente orgánico peligroso (PCOP) designado (según la Regla II-815 C) en su permiso para cada tipo de desperdicio a ser incinerado. La EDR es determinada para cada PCOP siguiendo la siguiente ecuación:

$$EDR = \frac{(W_{in} - W_{out})}{W_{in}} \times 100\%$$

Donde:

W_{in} = es el estimado de alimentación en masa de un PCOP en el flujo de alimentación de desperdicio al incinerador

y

W_{out} = es el estimado de emisión en masa del mismo PCOP presente en las emisiones de escape antes de descargarse a la atmósfera.

- (b) Un incinerador que queme desperdicios peligrosos F020, F021, F022, F023, F026 & F027 deberá adquirir una eficiencia de destrucción y remoción (EDR) de 99.9999% para cada principal constituyente orgánico peligroso (PCOP) designado (según la Regla II-815 C), en su permiso. Este cumplimiento deberá demostrarse en PCOP que son más difíciles de incinerar que tetra-, penta-, y hexaclorodibenzo - para-dioxinas

- (3) Si el desperdicio a ser quemado es uno de aquellos descritos por los párrafos 2 (a) (i), 2 (a) (ii), 2 (a) (iii) ó 2 (a) (iv) de esta Regla y contiene concentraciones insignificantes de constituyentes peligrosos incluidos en el Anejo C-3 de este Reglamento, entonces la Junta podrá, al establecer las condiciones del permiso, eximir al solicitante de todo requisito de esta regla, excepto la Regla II-815 B (Análisis de Desperdicio) y la Regla II-815 H (Cierre) después de considerar el análisis del desperdicio incluido con la Parte B de la solicitud de permiso, a menos que la Junta encuentre que el desperdicio va a constituir una amenaza a la salud humana y al ambiente si es quemado en un incinerador.
- (4) El dueño u operador de un incinerador podrá conducir pruebas de quemado sujeto sólo a los requisitos del Anejo C 6.

Esta regla equivale al 40 CFR Sección 264.340.

Se corrige la Regla II-815 B para que lea inciso (2) en lugar de inciso (b).

Esta Regla equivale al 40 CFR Sección 264.341.

Se enmienda la Regla II-815 C (2) (a) tercera oración para que lea Apéndice C-3 de este Reglamento en lugar de Apéndice VIII del 40 CFR Parte 261.

Esta regla equivale al 40 CFR Sección 264.342.

(a) Si la Junta encuentra que el desperdicio a ser quemado está:

(i) Anotado como un desperdicio peligroso en la Regla 608 de este Reglamento únicamente por ser inflamable (Código de Peligro I), corrosivo (Código de Peligro C), o ambos; o

(ii) Anotado como un desperdicio peligroso en la Regla 608 de este Reglamento únicamente por razón de ser reactivo (Código de Peligros R) por otras características que las mencionadas en la Regla 604 C (3) y (4), y no serán quemados cuando estén presentes en la zona de combustión otros desperdicios peligrosos; o

(iii) Es un desperdicio peligroso únicamente porque posee la característica de inflamable, corrosivo o ambas, según determinado por la prueba para características de desperdicios peligrosos incluida en la Parte VI de este Reglamento; o

(iv) Es un desperdicio peligroso solamente porque posee alguna de las características de reactividad descritas por la Regla 604 C (1), (2), (5), (6), (7) y (8) de este reglamento y no será quemado cuando estén presentes en la zona de combustión otros desperdicios peligrosos; y

(b) Si el análisis del desperdicio demuestra que el desperdicio no contiene alguno de los constituyentes peligrosos incluidos en el Anejo C 3 de este Reglamento, los cuales podrían estar presentes en dicho desperdicio.

se reduzca la posibilidad de que estos desperdicios migren hacia el agua subterránea o superficial o al aire, para así proteger la salud humana y el ambiente.

Este inciso L corresponde al 40 CFR Sección 264.317.

Se enmienda la Regla II-815 A para que lea como sigue:

Incineradores

Regla II-815 A Aplicabilidad

- (1) Las normas establecidas en esta regla aplican a dueños u operadores de facilidades que tratan desperdicios peligrosos en incineradores, a excepción de lo dispuesto por la Regla II-801 A. Los siguientes dueños u operadores de facilidades se considera que incineran desperdicios peligrosos:
 - a) Dueños u operadores de incineradores de desperdicios peligrosos; y
 - b) Dueños u operadores que queman desperdicios peligrosos en calderas de vapor o en hornos industriales de manera que se destruyan los mismos, o quienes queman desperdicios peligrosos con propósito de reciclar los mismos y eligen ser reglamentados bajo esta Regla.
- (2) Luego de considerar el análisis del desperdicio incluido en la Parte B de la solicitud de permiso, la Junta al establecer las condiciones del permiso eximirá al solicitante de todos los requisitos de esta Regla, excepto la Regla II-815 B (Análisis de desperdicio) y la Regla II-815 H (Cierre),

Se enmienda la regla II-814 para añadirle un nuevo inciso L que lee como sigue:

Regla II-814 L Requisitos Especiales para Desperdicios Peligrosos F020, F021, F022, F023, F026 y F027.

- (1) Los desperdicios peligrosos F020, F021, F022, F023, F026 y F027 no deberán ser colocados en un relleno sanitario a menos que el dueño u operador opere dicho relleno sanitario de acuerdo con el plan de manejo para dichos desperdicios aprobado por la Junta conforme a las normas establecidas en esta Regla y conforme con todo otro requisito aplicable de esta parte. Los factores a ser considerados son:
 - (a) El volumen y las características físicas y químicas de los desperdicios, incluyendo el potencial que poseen para migrar hacia el terreno, o ser volátiles o escapar hacia la atmósfera;
 - (b) Las propiedades atenuativas de los terrenos subyacentes y circundantes u otros materiales;
 - (c) Las propiedades de movilización de otros materiales dispuestos junto con estos desperdicios; y
 - (d) La efectividad de tratamiento adicional, diseño o requisitos de monitoría.
- (2) La Junta determinará si son necesarios diseños adicionales y requisitos de operación y monitoría para los rellenos sanitarios que manejan desperdicios peligrosos F020, F021, F022, F023, F026 y F027, de manera que

- (c) El receptáculo está diseñado para contener los líquidos libres para otro uso que no sea el almacenamiento, tal como una batería o condensador; o
 - (d) El receptáculo es un paquete de laboratorio según se define y dispone del mismo de acuerdo a la Regla II-814 K.
- (5) Efectivo al 8 de noviembre de 1985, se prohíbe colocar cualquier líquido que no sea desperdicio peligroso en un relleno sanitario a menos que el dueño u operador de dicho relleno sanitario le demuestre a la Junta o ésta determine que:
- (a) La única alternativa razonablemente disponible para la colocación del líquido es en dicho relleno sanitario o en un embalse superficial sin revestimiento, que contenga o razonablemente se anticipe que contenga desperdicios peligrosos, aunque no tenga permiso u esté operando bajo status interino; y
 - (b) La colocación en el relleno sanitario de dicho dueño u operador no constituye un riesgo de contaminación de alguna fuente subterránea de agua potable.

Esta Regla equivale al 40 CFR Sección 264.314.

- (b) Antes de su disposición, el desperdicio líquido o desperdicio que contenga líquidos libres sea tratado o estabilizado física o químicamente de manera que los líquidos libres ya no estén presentes (Ejemplos: mezclándolo con algún sólido absorbente).
- (2) Efectivo al 8 de mayo de 1985, se prohíbe colocar desperdicios líquidos peligrosos a granel o sin envasar o desperdicios peligrosos que contengan líquidos libres (se hayan añadido o no absorbentes) en cualquier relleno sanitario.
- (3) El siguiente examen: Método 9095 (Examen de filtración de pintura líquida), descrito en la publicación de la APA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" se utilizará para demostrar la ausencia o presencia de líquidos libres ya sea en desperdicios en receptáculos o a granel.
- (4) Receptáculos conteniendo líquidos libres no podrán colocarse en un relleno sanitario a menos que:
 - (a) Todo líquido libre o "free standing"
 - (i) Haya sido removido por decantación u otro método;
 - (ii) Haya sido mezclado con un absorbente o solidificado para que los líquidos libres ya no se encuentren; o
 - (iii) Haya sido eliminado de otro modo; o
 - (b) El receptáculo sea muy pequeño, tal como una ampollita; o

- (e) Proteger y mantener los puntos de colindancias fijadas por mensura, utilizados para cumplir con la Regla II 814 E.

Estos incisos equivalen al 40 CFR Secciones 264.310 (b) (2) - (b) (5).

Se enmienda la Regla II-814 F (3) para que en lo sucesivo lea:

- (3) Durante el período de cuidado de cierre posterior, si algún líquido se filtra al sistema de detección contra derrames, el dueño u operador notificará por escrito a la Junta del derrame en o antes de siete (7) días a partir de la detección del mismo. La Junta modificará el permiso para requerir el cumplimiento con los requisitos de la Regla II-806.

Este inciso equivale al 40 CFR Sección 264.310 (c).

Se enmienda la Regla II-814 I para que lea como sigue:

Regla II-814 I Requisitos Especiales para Líquidos a Granel y en Receptáculos.

- (1) Desperdicios líquidos a granel, desperdicios líquidos sin envasar o desperdicios que contengan líquidos libres podrán colocarse en un relleno sanitario antes del 8 de mayo de 1985, sólo si:
 - (a) El relleno sanitario tiene un revestimiento y un sistema de recolección y remoción de lixiviación, que cumple con los requisitos de la Regla II-814 B (1); o

- a. Número de identificación, nombre y dirección de la facilidad para desperdicio sólido peligroso;
- b. El año calendario cubierto por el informe;
- c. Para facilidades fuera de localización, el número de identificación de cada generador de desperdicio sólido peligroso del cual la facilidad recibió el desperdicio sólido peligroso durante el año; y para desperdicio importado, el informe incluirá el nombre y la dirección del generador extranjero;
- d. Descripción y cantidad de cada desperdicio sólido peligroso recibido en la facilidad durante el año. Para los que disponen fuera de la facilidad, esta información debe estar ordenada por el número de identificación de cada generador y del desperdicio sólido peligroso;
- e. El método de tratamiento, almacenamiento o disposición de cada desperdicio sólido peligroso;
- f. Data sobre monitoría según la Regla 503 B (2) (b) y (c), 503 B (3) (b) (2), cuando sean requeridos.
- g. Los estimados más recientes de los costos de cierre según la Regla I-806 C y para las facilidades de disposición, los estimados más recientes de los costos de cierre posterior según la Regla I-806 E; y

- h. Certificación de acuerdo con los requisitos de la Junta firmada por el dueño u operador de la facilidad o su representante debidamente autorizado.

Esta regla equivale al 40 CFR Sección 265.75.

Se enmienda la Regla 503 B para que lea como sigue:

Regla 503 B Mantenimiento de Registros e Informes Relativos a Muestreo de Agua Subterránea.

A menos que el agua subterránea sea muestreada satisfaciendo los requisitos de la Regla I-804 D(4)(d) el dueño u operador deberá:

1. Mantener registros de todos los análisis requeridos en la Regla I-804 (C) (3) y (4), las elevaciones superficiales asociadas al agua subterránea requeridas en la Regla I-804 (C) (5), y las evaluaciones requeridas en la Regla I-804 (D) (2). Esos registros se mantendrán a través de la vida activa de la facilidad y, para facilidades de disposición hasta el periodo de cierre posterior; y
2. Informar a la Junta la siguiente información sobre el muestreo de agua subterránea:
 - a. Durante el primer año, cuando se estén estableciendo las concentraciones iniciales de trasfondo para la facilidad: las concentraciones o valores de los parámetros anotados en la Regla I-804 (C) (2) (a) para cada pozo de muestreo de agua subterránea, los mismos serán informados dentro de quince (15) días después de haber completado el análisis trimestral requerido. El dueño u operador identificará por separado para cada pozo de

muestreo cualquier parámetro cuyas concentraciones o valores hayan sido encontrados excediendo el nivel de contaminante máximo anotado en la Regla I-804 (C) (2) (a).

- b. Después del primer año y de ahí en adelante, anualmente se informará lo siguiente:

Las concentraciones o valores de los parámetros anotados en la Regla I-804 (C) (2) (c). Esos valores serán sometidos para cada pozo de muestreo de agua subterránea, y los mismos serán sometidos junto con las evaluaciones de esos parámetros requeridos bajo la Regla I-804 (D) (2). El dueño u operador debe identificar por separado cualquier diferencia significativa de la información básica inicial encontrada en los pozos gradiente arriba, de acuerdo con la Regla I-804 (D) (3). Durante la vida activa de la facilidad, esa información será sometida no más tarde del primero de marzo de cada año calendario.

- c. Los resultados de la evaluación de las elevaciones superficiales del agua subterránea requerida bajo la Regla I-804 (D) (5) y una descripción de la respuesta requerida a esa evaluación donde aplique, no más tarde del primero de marzo de cada año calendario.

3. Si se hace muestreo del agua subterránea para satisfacer los requisitos de la Regla I-804 (D) (4) (d), el dueño u operador debe:

- a. Mantener informes de los análisis y evaluaciones especificadas en el plan de evaluación requerido por la Regla I-804 (D) (4) (c), a través de la vida activa de la facilidad, y para facilidades de disposición en el terreno, a través del periodo de cierre posterior;y
- b. Someter anualmente a la Junta, hasta el cierre final de la facilidad, un informe que contenga los resultados del programa de evaluación de la calidad de agua subterránea; incluyendo, pero sin limitarse a la tasa de migración calculada (o medida) de desperdicios sólidos peligrosos o constituyentes de desperdicios peligrosos en el agua subterránea durante el periodo de informe. Esta información deberá someterse no más tarde del primero de marzo de cada año calendario.

Esta regla equivale al 40 CFR Sección 265.94.

Se enmienda la Regla 503 C para que en lo sucesivo lea:

C. Otros Informes

Además de someter el informe cada dos años y el informe sobre desperdicios sin manifiestos descritos en la Regla 503 A (3) y 504 D (6), el dueño u operador informará a la Junta lo siguiente:

- (1) escapes, fuegos, explosiones según lo especificado en la Regla I-803 E (11) (K);
- (2) la contaminación de agua subterránea y datos sobre monitoría según especificado en la Regla I-804 D y 503 B;
- (3) alteración del proceso de operación autorizado; y
- (4) el cierre de la facilidad según especificado en la Regla I-805 A (7).

Esta regla equivale al 40 CFR Sección 265.77.

Se enmienda la Regla 504 D para que en lo sucesivo lea como sigue

D. Requisitos para Mantenimiento de Registros e Informes de Manifiesto a los Dueños u Operadores de Facilidades

La reglamentación de esta parte aplicará a dueños u operadores de facilidades que disponen dentro y fuera de la facilidad excepto que la Regla I-801 provea de otra forma. Las Reglas 504 D (1) a (6) no aplicarán a dueños u operadores de facilidades que disponen en su facilidad, que no reciban desperdicios peligrosos de fuentes fuera de su facilidad.

- 1. El dueño u operador de una facilidad para desperdicios sólidos peligrosos que recibe desperdicios sólido peligroso acompañado de un manifiesto debe:
 - a. Firmar y anotar la fecha en cada copia del manifiesto para certificar que el desperdicio sólido peligroso cubierto por el manifiesto fue recibido;

- b. Anotar en cada copia del manifiesto cualquier discrepancia significativa (según definido en el Párrafo 4 de esta regla);
 - c. Según se requiere en la Regla 703 E entregar al transportador, por lo menos, una (1) copia del manifiesto firmado;
 - d. Dentro de treinta (30) días después de la entrega, enviar la copia original del manifiesto al generador, y al final de cada mes o periodo mayor de tiempo que pueda ser aprobado por la Junta, enviar una (1) copia del manifiesto firmado y completo a la Junta; y
 - e. Según lo establecido en la Regla 505 A, retener en la facilidad una (1) copia de cada manifiesto por lo menos por tres (3) años desde la fecha de entrega.
2. El dueño u operador de una facilidad que recibe desperdicio sólido peligroso de un transportador por barco (embarque a granel) que, según se establece en la Regla 706 E, está acompañado por un documento de embarque conteniendo toda la información requerida en el manifiesto (excluyendo el número de identificación de la APA, certificación del generador y firmas) debe:
- a. Firmar y escribir la fecha en cada copia del manifiesto o documento de embarque (si el manifiesto no ha sido recibido) para certificar que el desperdicio sólido peligroso cubierto por estos fue recibido;

- b. Anotar cualquier discrepancia significativa en cada copia del documento de embarque o manifiesto (según se define en el Párrafo 4 de esta regla).
- c. Entregar inmediatamente al transportador por barco (embarque a granel) por lo menos una (1) copia del manifiesto o de los documentos de embarque o manifiesto (si el manifiesto no ha sido recibido);
- d. Dentro de treinta (30) días después de la entrega, enviar una (1) copia de manifiesto firmado y fechado al generador, sin embargo, si el manifiesto no ha sido recibido dentro de treinta (30) días después de la entrega, el dueño u operador deberá enviar una copia del documento de embarque firmado y fechado al generador; y

(Comentario: La Regla 703 E (4) requiere al generador enviar tres copias del manifiesto a la facilidad cuando se envían desperdicios peligrosos por barco (embarque a granel).)

- e. Según se establece en la Regla 505 A, retener en la facilidad una (1) copia de cada documento de embarque o manifiesto por lo menos por tres (3) años desde la fecha de la entrega.

Todas las copias de los manifiestos o documentos de embarque firmados y completos serán enviados a la Junta a:

Director
Area Control Contaminación de Terrenos
Junta de Calidad Ambiental

3. Cuando un envío de desperdicio peligroso haya sido iniciado desde una facilidad, el dueño u operador de esta facilidad debe cumplir con los requisitos de la Parte VII.

(Comentario: Las disposiciones de la Regla 704 D (1) son aplicables a la acumulación de desperdicios peligrosos en la facilidad por parte de los generadores. Por lo tanto, las disposiciones de la Regla 704 D (1) sólo aplicarán a dueños u operadores que hacen envíos de desperdicios peligrosos generados en esa facilidad.)

4. Las discrepancias en el manifiesto son diferencias entre la cantidad o tipo del desperdicio sólido peligroso designado en el manifiesto o en los documentos de embarque y la cantidad o tipo de desperdicio sólido peligroso que una facilidad realmente recibe. Discrepancias significativas en la cantidad son:

- a. Para desperdicio a granel, variaciones mayores del diez por ciento (10%) del peso, y
- b. Para desperdicio en lotes, cualquier variación en el número de piezas, tales como discrepancia de un barril en la carga de un camión. Discrepancias significativas en cuanto al tipo son diferencias obvias que pueden ser descubiertas mediante inspección o análisis del desperdicio, tales como un desperdicio de solvente que ha sido sustituido por un desperdicio ácido o componentes tóxicos que no han sido informados en el manifiesto o documentos de embarque.

5. Al descubrir la discrepancia significativa, el dueño u operador deberá tratar de reconciliar la discrepancia con el generador o el transportador del desperdicio (mediante llamada telefónica). Si la discrepancia no es solucionada dentro de los quince (15) días después de haber recibido el desperdicio, el dueño u operador debe someter inmediatamente una carta a la Junta describiendo la discrepancia y los intentos de reconciliar dicha discrepancia y una copia del manifiesto o documentos de embarque envueltos en el asunto.
6. Los dueños u operadores de una facilidad para desperdicio sólido peligroso que recibe cualquier desperdicio sólido peligroso sin manifiesto o documento de embarque de cualquier fuente fuera de su localización (excepto aquel que cualifica para excepción como pequeño generador según la Parte VI, y no tiene, por lo tanto, que preparar el manifiesto) deberá preparar y someter un informe a la Junta no más tarde de quince (15) días después de haber recibido el desperdicio. El informe debe incluir la siguiente información:
 - a. Número de identificación, nombre y dirección de la facilidad para desperdicio sólido peligroso;
 - b. Fecha en que la facilidad para desperdicio sólido peligroso recibió o descubrió el desperdicio;
 - c. Número de identificación, nombre y dirección del generador y del transportador si está disponible;
 - d. Descripción de cantidad y tipo de cada desperdicio peligroso que no ha sido anotado y que ha sido recibido en la facilidad;

- e. Método de tratamiento, almacenamiento o disposición usado para cada desperdicio sólido peligroso;
- f. Una certificación a tenor con los requerimientos de la Junta, firmada por el dueño u operador o su representante debidamente autorizado; y
- g. Explicación del porqué el desperdicio no fue manifestado, si se conoce.

(Comentario: Pequeñas cantidades de desperdicio peligroso están excluidas de esta reglamentación y no requieren manifiesto alguno. La Agencia sugiere que el dueño u operador de una facilidad que recibe desperdicio peligroso sin manifiesto obtenga de cada generador una certificación de que dicho desperdicio cualifica para la exclusión. De otro modo, la Agencia sugiere que el dueño u operador someta un informe para el movimiento del desperdicio peligroso no manifestado.)

Esta Regla 504 D equivale al 40 CFR Secciones 265.71, 265.72 y 265.76.

Se enmienda la Regla I-801 para que en lo sucesivo lea como sigue:

Parte VIII - SUBPARTE I DISPOSICIONES ESPECIALES PARA FACILIDADES PARA EL TRATAMIENTO, ALMACENAMIENTO Y DISPOSICION DE DESPERDICIOS SOLIDOS PELIGROSOS.

Regla I-801 Propósito, Alcance y Aplicabilidad

Esta parte establece requisitos adicionales aplicables a facilidades para el tratamiento, almacenamiento y disposición de desperdicios sólidos peligrosos. Estos requisitos suplementan las disposiciones generales de la Parte II y

las prohibiciones generales de la Parte III. Las mismas no son aplicables a facilidades que no manejan desperdicios sólidos peligrosos. Se establecen normas mínimas que definan el manejo aceptable de desperdicios peligrosos durante el período de status interino y hasta que se expida la certificación de cierre final o, si la facilidad está sujeta a los requisitos de cierre posterior hasta tanto se completen dichas responsabilidades.

A. Los requisitos de esta parte aplican a los dueños u operadores de facilidades que tratan, almacenan o disponen desperdicios peligrosos que han cumplido en su totalidad con los requisitos de status interino bajo la Sección 3005 (e) de la Ley Federal de Conservación y Recuperación de Recursos, que haya sometido una solicitud de permiso (Parte A) antes del 19 de noviembre de 1980 y que hayan cumplido con las Reglas I-902 y I-903, 6 proceda a hacerlo así dentro de los próximos 6 meses de entrar en vigencia este reglamento. Estos requisitos también aplican a dueños u operadores de facilidades de tratamiento, almacenamiento o disposición de desperdicios peligrosos que existían para el 19 de noviembre de 1980 y que no han sometido una solicitud de permiso bajo RCRA y/o este reglamento excepto lo que de otra forma se provea en la Parte VI de este reglamento.

(COMENTARIO: Luego de la fecha de vigencia de la reglamentación, bajo la (Parte IX-I), el tratamiento, almacenamiento y disposición de desperdicios peligrosos está prohibida excepto cuando se haga de acuerdo con un permiso. También se provee para el funcionamiento continuo de una facilidad existente que reúna ciertas condiciones, hasta que se disponga final y administrativamente la solicitud de permiso hecha por el dueño u operador).

B. Los requisitos de esta Parte no aplican a:

- 1) Aquellas personas que disponen de desperdicios peligrosos en el océano sujeto a los requisitos de permiso bajo la Ley Federal de Investigación de Protección Marina y Santuarios ("Marine Protection Research and Sanctuaries Act");

(COMENTARIO: La reglamentación de esta Parte VIII-I aplica al tratamiento o almacenamiento de desperdicios peligrosos antes de que sea embarcado en una nave para la incineración o disposición en el mar según provisto en el párrafo (A) de esta regla.)

- 2) Una persona que dispone desperdicios peligrosos mediante inyección subterránea sujeto a un permiso emitido bajo un programa de Control de Inyección Subterránea (CIS) aprobado o promulgado bajo la Ley Federal de Agua Potable;

(COMENTARIO: La reglamentación de esta Parte VIII-I aplica al tratamiento sobre el terreno o al almacenamiento de desperdicio peligroso antes de ser inyectado subterráneamente. Esta reglamentación también aplica a la disposición de desperdicio peligroso mediante inyección subterránea, según dispuesto en el párrafo (A) de esta regla, hasta tanto se disponga final y administrativa-mente de la solicitud de permiso hecha por una persona bajo este reglamento o según un programa de control de inyección subterránea promulgado u aprobado).

- 3) El dueño u operador de una planta de tratamiento de aguas usadas de la Autoridad de Acueductos y Alcantarillados de Puerto Rico que trata, almacena o dispone de desperdicios peligrosos;

(COMENTARIO: El dueño u operador de una facilidad bajo los párrafos (B) (1) a (B) (3) de esta regla, está sujeto a los requisitos de la Parte VIII-II en la medida que están incluidos en el permiso por regla concedido a dicha persona bajo la Parte IX-I o sea requerido por el Anejo B-1, de este reglamento).

- 4) El dueño u operador de una facilidad con permiso, licencia o registrado para manejar desperdicios sólidos municipales o industriales, si el único desperdicio peligroso que la facilidad trata, almacena o dispone, está excluido por reglamentación bajo la Regla 606 A de este reglamento;
- 5) El dueño u operador de una facilidad que maneja materiales recirculados mencionados en la Regla 606 B (1) (b) y (c) de este reglamento (excepto en la medida que los requisitos de esta Parte se refieran a las Reglas 1103, 1104, 1106 & 1107 de este reglamento).
- 6) Un generador que acumule desperdicios en la facilidad en cumplimiento con la Regla 704 D de este reglamento, si los mismos son aplicables.
- 7) Un agricultor disponiendo desperdicios de plaguicidas de su propio uso en cumplimiento con la Regla 705 C de este reglamento; o

- 8) El dueño u operador de una facilidad de tratamiento totalmente encerrada.
- 9) El dueño u operador de una unidad elemental de neutralización o de una unidad de tratamiento de aguas usadas.
- 10) Personas relacionadas con aquellas actividades que son llevadas a cabo para contener o tratar inmediatamente un derrame de desperdicio o material peligroso que al ser derramado se convierte en desperdicio peligroso, excepto que, con relación a dichas actividades, los requisitos apropiados de la Regla I-810, Regla 207 y Regla I-803 son aplicables a dueños u operadores de facilidades de tratamiento, almacenamiento y disposición de otra manera sujetos a esta Parte VIII-I.

(COMENTARIO: Este párrafo aplica solamente a actividades ejecutadas como respuesta inmediata a un derrame. Luego de completarse las actividades, esta reglamentación aplicará completamente al manejo de cualquier residuo de derrame o restos que sean desperdicio peligroso bajo la Parte VI).

- (a) Excepto lo provisto en el párrafo (B) (10)
 - (b) de esta regla, una persona envuelta en la actividad de tratamiento o contención durante una respuesta inmediata a una de las siguientes situaciones:

- (i) Una descarga de desperdicios peligrosos;
 - (ii) Una amenaza inminente y substancial de una descarga de desperdicios peligrosos;

- (iii) Una descarga de un material que al ser descargado se convierta en desperdicio peligroso.
 - (b) El dueño u operador de una facilidad que de otra forma hubiese sido reglamentada por esta parte, debe cumplir con los requisitos aplicables del Plan de Contingencia y el de Prevención, Control y Contramedidas de Derrames.
 - (c) Una persona que está cubierta por el párrafo B (10) (a) de esta regla y que continúa o inicia las actividades de tratamiento o contención de desperdicios peligrosos después que una respuesta inmediata ha finalizado, está sujeta a todos los requisitos aplicables de esta parte y la reglamentación aplicable de permisos bajo el Sistema Nacional para la Eliminación de Descargas Contaminantes ("National Pollutant Discharge Elimination System").
- 11) Un transportador almacenando embarques de receptáculos de desperdicios peligrosos que fueron manifestados cumpliendo con los requisitos de la Regla 704 A en una facilidad de transferencia por un período de diez días o menos.

- 12) La adición de material absorbente en un receptáculo con desperdicio o la adición de un desperdicio al material absorbente en un receptáculo, previendo que estas acciones ocurran cuando se echa desperdicio en el receptáculo por primera vez; y se cumple con las Reglas I-809 B y la Regla I-812 B (6) y C.

C. Los siguientes desperdicios peligrosos no serán manejados en facilidades sujetas a reglamentación bajo esta Parte:

- (1) Desperdicios peligrosos clasificados con los siguientes números de la APA, F020, F021, F022, F023, F026 ó F027 a menos que:
 - (a) El cieno del tratamiento de aguas usadas es generado en un embalse superficial como parte del sistema de tratamiento de una planta de aguas usadas;
 - (b) El desperdicio es almacenado en tanques o receptáculos;
 - (c) El desperdicio es almacenado o tratado en montículos de desperdicios que reúnen los requisitos de la Regla II-812 A (3) como todo otro requisito aplicable de la Regla I-818;
 - (d) El desperdicio es quemado en incineradores certificados según las normas y procedimientos de la Regla I-814-G; o

- (e) El desperdicio es quemado en facilidades que tratan los desperdicios de forma térmica en otro aparato que no sea un incinerador y que está certificado según las normas y procedimientos de la Regla I-815 K.

Esta regla equivale al 40 CFR Sección 265.1.

Se enmienda la Regla I-803 (C) para añadir un inciso (4) que leerá como sigue:

4. Está prohibido colocar cualquier desperdicio peligroso en formaciones de cúpulas o yacimientos de sal, minas subterráneas o cuevas.

Este inciso equivale al 40 CFR Sección 265.18.

Se enmienda la Regla I-803 E para que lea como sigue:

Regla I-803 E - Plan de Contingencia y Procedimientos de Emergencia en el Plan de Operaciones.

1. Cada dueño u operador de una facilidad de desperdicio sólido peligroso deberá desarrollar y someter por escrito un Plan de Contingencia para la aprobación de la Junta como parte del Plan de Operación de su facilidad. El Plan de Contingencia deberá ser diseñado para minimizar el peligro a la salud humana o al ambiente proveniente de fuegos, explosiones o cualquier escape repentino no planificado o escape no repentino de desperdicio peligroso o constituyentes de desperdicios peligrosos al aire, al terreno o al agua superficial.
2. Las medidas del plan deberán llevarse a cabo inmediatamente cuando ocurra un fuego, explosión, o escape de desperdicios peligrosos constituyentes de desperdicios peligrosos que puedan amenazar la salud humana o el ambiente.

3. El Plan de Contingencia deberá describir las acciones que el personal de la facilidad deberá tomar para cumplir con los dos primeros párrafos de esta Regla y con la Regla I-803 E (11) (b) - (k) en respuesta a fuegos, explosiones o cualquier escape repentino no planificado o escape no repentino de desperdicio peligroso o constituyentes de desperdicios peligrosos al aire, el terreno o al agua superficial en la facilidad.
4. Si el dueño ha preparado ya un Plan de Prevención, Control y Contramedidas de Derrames (PCCD) de acuerdo con el Anejo C-10 de este Reglamento o algún otro plan de emergencia o contingencia, necesitará solamente enmendar ese plan para incorporar las disposiciones para el manejo de desperdicios peligrosos que sean suficientes para cumplir con los requisitos de esta Parte.
5. El plan deberá describir los convenios acordados con el Departamento de Policía, Departamento de Bomberos, hospitales, contratistas y equipos locales y estatales de reacción a emergencias para coordinar los servicios de emergencia según la Regla I-810 G.
6. El plan deberá expresar los nombres, direcciones, y números telefónicos (tanto de la oficina como del hogar) de todas las personas calificadas para actuar como coordinadores de emergencia (Regla I-803 E (11) (a)) y dicha lista se mantendrá actualizada. Cuando se nombren más de una persona, una de las deberá ser nombrada como principal coordinador de emergencias y los otros deberán ser nombrados en el orden en que asumirán responsabilidades como coordinadores alternos.

7. El plan deberá incluir una lista de todo equipo de emergencia habido en la facilidad, (tal como: sistemas de extinguidores de fuego, equipo de control de derrames, sistema de comunicaciones y alarmas (internas y externas), y equipo de descontaminación), donde dicho equipo se requiera. Esta lista se mantendrá actualizada. Además, el plan incluirá la localización y descripción de su capacidad.
8. El Plan de Contingencia incluirá un plan de evacuación para el personal de la facilidad cuando exista la posibilidad de que ésta sea necesaria. Este plan describirá las señales a utilizarse para comenzar la evacuación (en casos donde las principales rutas puedan estar obstruidas por escapes de desperdicios peligrosos o por fuegos).
9. Una copia del plan de contingencia y toda enmienda al plan deberá mantenerse en la facilidad y someterse a todo Departamento de Policía, Bomberos, Hospitales y equipos locales y estatales de reacción a emergencias que podrían ser llamados para proveer servicios de emergencia.
10. El Plan de Contingencia deberá ser revisado e inmediatamente enmendado, de ser necesario, cuando:
 - a) La reglamentación aplicable sea revisada;
 - b) Cuando el plan falle durante una emergencia;

- c) Ocurran cambios en el diseño, construcción, operación, mantenimiento u otras circunstancias de la facilidad de manera que materialmente aumente el potencial para fuegos, explosiones o escapes de desperdicios peligrosos o constituyentes de desperdicios peligrosos, o cambie la respuesta necesaria en una emergencia;
 - d) Ocurran cambios en la lista de coordinadores de emergencias; u
 - e) Ocurran cambios en la lista de equipos de emergencias.
11. El dueño u operador de una facilidad de desperdicio sólido peligroso deberá desarrollar y someter por escrito para la aprobación de la Junta los procedimientos de emergencia como parte del Plan de Operaciones de la Facilidad. Estos procedimientos de emergencias deberán satisfacer los requisitos de la Regla 207 y en adición deberán proveer lo siguiente:
- a) Al menos un empleado debe estar en todo momento en la facilidad o disponible por teléfono (que pueda responder a una emergencia en la facilidad en un corto periodo de tiempo) con la responsabilidad de coordinar todas las medidas de emergencia. Este Coordinador de Emergencias debe estar familiarizado con todos los aspectos del Plan de Contin-gencia de la facilidad, toda la operación o actividad de la facilidad, la localización y características del desperdicio manejado, la

localización de todos los registros dentro de la facilidad y un croquis de las estructuras que componen la facilidad. Además, esta persona debe tener la autoridad para comprometer los recursos necesarios para cumplir con el plan de contingencia.

(COMENTARIO: La responsabilidad del Coordinador de Emergencias está detallada en la Regla I-803 E (II) (b). Las responsabilidades aplicables pueden variar dependiendo de factores tales como: el tipo y variedad del desperdicio manejado en la facilidad, y el tipo y la complejidad de la facilidad).

- b) Cuando existe una situación de emergencia presente o inminente, el Coordinador de Emergencia (o la persona designada por éste cuando se trata de conseguir al Coordinador de Emergencia por teléfono) inmediatamente deberá:
 - (1) Activar las alarmas internas de la facilidad o el sistema de comunicaciones, cuando sea aplicable, para notificar a todo el personal de la facilidad; y
 - (2) Notificar a las agencias pertinentes designadas para proporcionar la ayuda necesaria en estos casos.
- c) Cuando existe un escape, fuego o explosión, el Coordinador de Emergencia identificará inmediatamente la naturaleza, la fuente exacta, la cantidad y la verdadera extensión del escape. Podrá lograr estos objetivos observando o revisando los registros o manifiestos de la facilidad y si fuera necesario mediante análisis químicos.

- d) Al mismo tiempo, el Coordinador de Emergencias determinará los posibles peligros para la salud y el ambiente que puedan resultar como consecuencia del escape, fuego o explosión. Esta determinación considerará los efectos directos e indirectos del escape, fuego o explosión.

(Por ejemplo: los efectos de gases tóxicos irritantes o asfixiantes que puedan ser generados, o los efectos de cualquier escorrentía de desperdicio peligroso en el agua superficial, del agua o agentes químicos que se utilicen para controlar el fuego y explosiones inducidas por el calor).

- e) Si el Coordinador de Emergencias determina que la facilidad ha tenido un escape, explosión o fuego que puede poner en peligro la salud o el ambiente fuera de la facilidad, deberá informar sus hallazgos de la siguiente manera:

(1) Si su determinación indica que será aconsejable evacuar el área adyacente, deberá notificar inmediatamente a las autoridades apropiadas. Deberá estar disponible para ayudar los oficiales correspondientes a decidir si debe ser evacuado o no el área adyacente; y

(2) Deberá notificar inmediatamente al Oficial Gubernamental designado como Coordinador en la escena del accidente para esa área geográfica, o al Centro de Reacción de Emergencias (al teléfono libre de cargos (800) 424-8802 en operación 24 horas). Este informe incluirá:

- (i) Nombre y número de teléfono de la persona que informa;
 - (ii) Nombre y dirección de la facilidad;
 - (iii) Hora y tipo de incidente (escape o fuego);
 - (iv) El nombre y cantidad de los desperdicios envueltos si se conoce la extensión de los mismos;
 - (v) La extensión de los heridos, si alguno;
y
 - (vi) Los posibles riesgos a la salud humana o al ambiente fuera de la facilidad.
- f) Durante una emergencia el Coordinador de Emergencia deberá tomar todas las medidas necesarias para garantizar que los fuegos, explosiones o escapes no ocurrirán, recurrirán o se esparcirán hacia otros desperdicios peligrosos en la facilidad. Estas medidas incluirán, cuando sea aplicable, detener procesos y operaciones, recoger y contener el desperdicio liberado y remover o aislar los receptáculos.
- g) Si la facilidad detiene sus operaciones en respuesta a un fuego, explosión o escape, el Coordinador de Emergencias deberá rastrear las posibles filtraciones, el desarrollo de presión, la generación de gases o rotura de válvulas, tuberías y cualquier otro equipo cuando sea apropiado.

- h) Inmediatamente después de una emergencia, el Coordinador de Emergencias proveerá para el tratamiento, almacenamiento o disposición de los desperdicios recuperados, los terrenos o agua superficial contaminada, o cualquier otro material que resulte de un escape, fuego o explosión en la facilidad.

(COMENTARIO: A menos que el dueño u operador pueda demostrar (de acuerdo a la definición de la Regla 102), que el material recuperado no es desperdicio peligroso, el dueño u operador se convertirá en un generador de desperdicios peligrosos y deberá manejar el mismo de acuerdo con todos los requisitos aplicables de las Partes VII y VIII-I).

- i) El Coordinador de Emergencias garantizará que en las áreas afectadas de la facilidad:

(1) Ningún desperdicio que pueda ser incompatible con el material del escape será tratado, almacenado o dispuesto hasta que se termine con los procedimientos de limpieza; y

(2) Todo el equipo de emergencia registrado en el plan de contingencia está limpio y adecuado para el uso designado antes de reanudar las operaciones.

- j) El dueño u operador notificará a la Junta y a las autoridades locales correspondientes, que la facilidad se encuentra en cumplimiento con el párrafo (i) de esta regla antes de reanudar las operaciones en el área afectada.
- k) El dueño u operador anotará en el registro de operación la hora, día y detalles de cualquier incidente que requiera la implantación del plan de contingencia. Dentro de quince días después del incidente, someterá a la Junta un informe escrito. Este informe incluirá:
- (1) Nombre, dirección y número de teléfono del dueño u operador;
 - (2) Nombre, dirección y número de teléfono de la facilidad;
 - (3) Día, hora y tipo de incidente (fuego, explosión);
 - (4) Nombre y cantidad de los desperdicios envueltos;
 - (5) La extensión de los daños, si alguno;
 - (6) Un estimado del peligro existente o potencial a la salud o al ambiente cuando sea aplicable; y
 - (7) La cantidad estimada, y disposición del material recuperado en el incidente."

Esta Regla I-803 E equivale al 40 CFR Parte 265. Subparte D.

Se enmienda la Regla I-804 A para que lea como sigue:

Regla I-804 Monitoria del Agua Subterránea

A. Programa para la Monitoria del Agua Subterránea.

1. Dentro de un (1) año después de la fecha de vigencia de este reglamento (ej., antes del 13 de noviembre de 1981), el dueño u operador de las facilidades de tratamiento, almacenamiento, o disposición que utiliza el terreno para manejar desperdicio sólido peligroso (ej., rellenos para desperdicio sólido peligroso, embalses superficiales, y facilidades de tratamiento en el terreno) deberá implantar un programa de monitoria de agua subterránea capaz de determinar el impacto de la facilidad en la calidad del agua subterránea en el acuífero más elevado subyacente a la facilidad excepto según se dispone en la Regla I-801 y el subpárrafo (3) de esta Regla.
2. Excepto según se dispone en los párrafos (3) y (4) de esta Regla, el dueño u operador deberá instalar, operar y mantener un sistema de monitoria de agua subterránea que reuna los requisitos de las Reglas I-804 B, C, D y Regla 503 B. Este programa de monitoria del agua subterránea se llevará a cabo durante la vida activa de la facilidad de desperdicios sólido peligroso, y para las facilidades de disposición, durante el período de cuidado de cierre posterior también.

3. Todos o parte de los requisitos de monitoría del agua subterránea de esta regla podrán ser obviados si el dueño u operador de la facilidad de desperdicio sólido peligroso demuestra, a satisfacción de la Junta, que existe un potencial mínimo de migración del desperdicio sólido peligroso o, de sus constituyentes desde la facilidad vía el acuífero más elevado hacia los pozos de abastos de agua (doméstico, industrial o agrícola), o a las aguas superficiales. La demostración deberá ser por escrito, se mantendrá en la facilidad y deberá estar certificada por un geólogo cualificado o un ingeniero cualificado en suelos y deberá establecer lo siguiente:

a. El potencial de migración del desperdicio sólido peligroso o sus constituyentes desde la facilidad hacia el acuífero más elevado, por una evaluación de:

(i) El balance de la precipitación de lluvia, evaporación, transpiración, escorrentías desde la facilidad e infiltración; y

(ii) Las características de la zona no saturada (ej., materiales geológicos, propiedades físicas, y profundidad del agua subterránea); y

b. El potencial del desperdicio sólido peligroso o sus constituyentes que entren al acuífero más elevado para migrar hacia un pozo de abasto de agua o aguas superficiales, mediante la evaluación de;

(i) Las características de la zona saturada (ej., materiales geológicos, propiedades físicas, y la tasa o proporción del flujo del agua subterránea); y

(ii) La proximidad de la facilidad a los abastos de agua o al agua superficial.

4. Si el dueño u operador asume (o sabe) que la monitoría de los parámetros indicadores en el agua subterránea según establecidos en los subpárrafos (B) y (C) de esta regla, puede exhibir aumentos estadísticamente significativos (o reducción en el caso de pH), cuando sea evaluado según la Regla I-804 D (2), podrá elegir, instalar, operar y mantener un sistema alterno de monitoría de agua subterránea (otro que el descrito en los subpárrafos (B) y (C) de esta regla). Si el dueño u operador decide utilizar el sistema alterno de monitoría de agua subterránea, deberá:

a. Dentro de un (1) año después de la fecha de vigencia de este reglamento, someter a la Junta un plan específico, certificado por un geólogo o ingeniero cualificado en suelos que satisfaga los requisitos del subpárrafo (D) (4) (c), para un sistema alterno de monitoría de agua subterránea;

b. No más tarde un (1) año después de la fecha de vigencia este reglamento, iniciará las determinaciones especificadas en el subpárrafo (D) (4) (d) de esta regla;

- c. Dentro de quince (15) días después de haber efectuado las determinaciones preparará y someterá a la Junta un informe escrito de acuerdo con la Regla I-804 D (4) (e).
 - d. Continuará efectuando esas determinaciones en una base trimestral hasta el cierre final de la facilidad; y
 - e. Cumplirá con los requisitos de mantenimiento de registros e informes relativos a muestreo de agua subterránea.
5. Los requisitos de monitoría de agua subterránea de esta Regla pueden ser obviados en relación a cualquier embalse superficial que:
- a. Es utilizado para neutralizar desperdicios que son peligrosos únicamente porque exhiben la característica de corrosivo bajo la Regla 604 B o están clasificados como desperdicios peligrosos en la Regla 608 de este Reglamento únicamente por esta razón; y
 - b. No contiene otro desperdicio peligroso, si el dueño u operador demuestra que no hay potencial de migración de desperdicio peligroso desde el embalse. Esta demostración establecerá, basado en la consideración de la característica del desperdicio y del embalse, que los desperdicios corrosivos serán neutralizados en forma tal que no cumplirán con la

característica de corrosividad antes de que puedan emigrar fuera del embalse. La demostración será por escrito y certificada por un profesional cualificado.

Esta Regla equivale al 40 CFR Sección 265.90.

Se enmienda la Regla I-804 B para que lea como sigue:

Regla I-804 B Sistema de Monitoría del Agua Subterránea.

1. El sistema de monitoría de agua subterránea debe ser capaz de producir muestras de agua subterráneas para ser analizadas y consistirá de lo siguiente:

a. Pozos de monitoría (por lo menos uno) instalados hidráulicamente gradiente arriba (ej., la dirección en que aumenta el "static head") desde el límite del área de manejo del desperdicio. Su número, localización y profundidad serán lo suficiente para producir las muestras de aguas subterráneas que serán:

(i) Representativas de la calidad de trasfondo del agua subterránea en el acuífero más elevado cerca de la facilidad; y

(ii) No afectadas por la facilidad y

b. Se instalarán hidráulicamente gradiente abajo por lo menos tres (3) pozos de monitoría (ej., en la dirección en que disminuye el "static head") en el límite del área de manejo de desperdicio. Su número, localización y profundidad garantizarán

que los mismos detectarán inmediatamente cualquier cantidad estadísticamente significativa de desperdicio sólido peligroso o sus constituyentes que migren desde el área de manejo del desperdicio hacia el acuífero más elevado.

2. No se requerirán sistemas separados de monitoría para cada componente de manejo de desperdicio de una facilidad, siempre que el muestreo de la calidad del agua gradiente arriba o gradiente abajo puede detectar cualquier descarga desde el área de manejo de desperdicios.
 - a. Para una facilidad consistente de sólo un embalse superficial, relleno o facilidad de tratamiento en el terreno, el área de disposición de desperdicio estará comprendida por el perímetro del límite del embalse, relleno o área de tratamiento.
 - b. Para una facilidad consistente de más de un embalse superficial, relleno, el área de manejo de desperdicio estará comprendida por el área imaginaria que circunscribe los varios componentes de manejo del desperdicio.
3. Cada pozo de monitoría estará revestido en tal forma que mantenga la integridad de la capa del pozo de monitoría. La tubería de revestimiento estará perforada o rellena con gravilla o arena hasta donde sea necesario, que permita la toma de muestras o profundidades donde existen las zonas de flujo apropiado del acuífero. El espacio anular (ej., el

espacio entre la capa y la tubería de revestimiento del pozo) sobre la profundidad de muestreo deberá estar sellado con un material adecuado (ej., lechada de cemento o pasta de bentonita) para evitar la contaminación de las muestras y del agua subterránea.

Esta Regla equivale al 40 CFR Sección 265.91.

Se enmienda el inciso (1) de la Regla I-804 C para que lea como sigue:

Regla I-804 C Plan de Muestreo y Análisis del Agua Subterránea

1. El dueño u operador de la facilidad de desperdicio sólido peligroso deberá obtener y analizar muestras del sistema de monitoría de agua subterránea instalado. También deberá desarrollar y seguir un plan de muestreo y análisis del agua subterránea. Dicho plan se mantendrá en la facilidad y será sometido a la Junta para su aprobación. El mismo deberá incluir:
 - a. Los procedimientos y técnicas para la toma de muestras;
 - b. Los procedimientos para preservación y embarque de las muestras;
 - c. Los procedimientos analíticos; y
 - d. El control de la cadena de custodia.

Este inciso equivale al 40 CFR Sección 265.92.

Se enmienda la Regla I-804 D (1) incisos (a), (b) y (c) para que lea como sigue:

Regla I-804 D

1.

- a. Si el desperdicio sólido peligroso o sus constituyentes han entrado a las aguas subterráneas;
- b. La tasa y el grado de migración del desperdicio sólido peligroso o sus constituyentes en el agua subterránea; y
- c. Las concentraciones de desperdicio sólido peligroso o sus constituyentes en el agua subterránea.

Esta Regla equivale al 40 CFR Sección 265.93 (a) (1), (2) y (3).

Se enmienda la Regla I-804 D (3) para que lea como sigue:

- 3. Si las comparaciones con los pozos gradiente arriba demuestran aumentos significativos (o reducción del pH), el dueño u operador deberá someter dicha información a la Junta. Si la comparación de los pozos gradiente abajo demuestran un aumento significativo (o reducción, del pH), el dueño u operador entonces deberá inmediatamente obtener muestras adicionales del agua subterránea de los pozos gradiente abajo donde se detectó la diferencia significativa, dividir las muestras en dos (2) y obtener análisis independiente de las muestras adicionales para determinar si la diferencia significativa se debió a un error de laboratorio.

Este inciso equivale al 40 CFR Sección 265.93 (c) (1) y (2).

Se enmienda la Regla I-804 D (4) en sus sub-incisos (b), (c), (d), (e) y (f). Estos leerán como sigue:

- (b) Dentro de quince (15) días luego del aviso inicial bajo el inciso 4 (a) anterior, el dueño u operador desarrollará y someterá a la Junta un plan específico basado en el bosquejo más comprensivo de evaluación de la calidad del agua subterránea requerido bajo el párrafo (1) de esta regla y lo someterá con una certificación de un geólogo cualificado o de un ingeniero cualificado en suelos, para un programa de evaluación de la calidad del agua subterránea en la facilidad.
- (c) El plan a ser sometido bajo la Regla I-804 A (4)(a) o el (b) anterior.
 - (1) El número, localización y profundidad de los pozos;
 - (2) Los métodos de muestreo y análisis para el desperdicio sólido peligroso o sus constituyente en la facilidad; y
 - (3) Los procedimientos de evaluación incluyendo cualquier uso de información sobre la calidad del agua subterránea obtenida previamente; y
 - (4) Un itinerario de implementación.
- (d) El dueño u operador deberá implementar el plan de evaluación de la calidad del agua subterránea, y como mínimo determinará:

- (1) La tasa y el grado de migración del desperdicio sólido peligroso o sus constituyentes en el agua subterránea; y
 - (2) Las concentraciones del desperdicio sólido peligroso o sus constituyentes en el agua subterránea.
- (e) El dueño u operador hará su primera determinación de éstas materias tan pronto como técnicamente le sea posible, y dentro de quince (15) días luego de la determinación, someterá a la Junta un informe escrito conteniendo una evaluación de la calidad del agua subterránea.
- (f) Si el dueño u operador determina, basado en los resultados de la primera determinación según la Regla I-804 D (4) (d) que ningún desperdicio peligroso o constituyente de desperdicio peligroso de la facilidad ha penetrado en el agua subterránea, entonces reinstalará el programa de evaluación de indicadores descritos en la Regla I-804 C y en el párrafo D (2) de esta Regla y dentro de quince (15) días someterá un informe escrito a la Junta.
- (g) Si el dueño u operador concluye, basado en la primera determinación requerida anteriormente en el subpárrafo (e) de este prarrafo que el desperdicio sólido peligroso o sus constituyentes han penetrado desde la facilidad al agua subterránea, deberá continuar con la determinación de la tasa de y el grado de migración y de las concentraciones de desperdicio sólido peligroso de o sus

Esta Regla equivale al 40 CFR Sección 265.93 (d) (2) al (7).

Se enmienda la Regla I-804 D (5) para que lea como sigue:

5. Al menos que la monitoría de agua subterránea se haga bajo la Regla I-804 D (4) (d), por lo menos anualmente, el dueño u operador deberá evaluar la información sobre la elevación superficial del agua subterránea obtenida en el párrafo (C) (5) de esta regla para determinar si los requisitos de ubicación de los pozos de monitoría se continua satisfaciendo. Si no, el dueño u operador, inmediatamente modificará el número, localización o profundidad de los pozos de monitoría para traer a cumplimiento al sistema de monitoría del agua subterránea.

Esta regla equivale al 40 CFR Sección 265. 93 (f).

Regla I-805 Cierre y Cierre Posterior

A. Cierre

1. Los requisitos establecidos a continuación aplican a los dueños y operadores de todas las facilidades de desperdicio sólido peligroso, excepto según se dispone en la Regla 801.
2. El dueño u operador de cada facilidad de desperdicio sólido peligroso deberá cerrar su facilidad solo de acuerdo con los siguientes requisitos:

a. En tal forma que:

- (1) Reduzca la necesidad de mantenimiento ulterior; y
- (2) Se controle, reduzca o elimine hasta el grado máximo posible, la emisión posterior del desperdicio sólido peligroso, los constituyentes del desperdicio sólido peligroso, las escorrentías de aguas contaminadas, la lixiviación, o de los productos de la descomposición del desperdicio al agua subterránea, a las aguas superficiales, o a la atmósfera.

b. El dueño u operador deberá proveer los sistemas y artefactos necesarios para proteger el agua subterránea y aguas superficiales y para el control de emisiones a la atmósfera.

c. En el caso de facilidades de disposición en el terreno, el dueño u operador deberá cubrir los desperdicios con por lo menos dos (2) pies de material de relleno.

d. El dueño u operador deberá aplicar al área suficiente material de relleno vegetativo y sembrará vegetación para evitar la erosión.

Se enmienda la Regla I-805 A (2) (g) y se sustituye por el siguiente texto:

g. El dueño u operador de cualquier facilidad de desperdicio sólido peligroso deberá someter un plan de cierre a la Junta para su aprobación previo a que le sea otorgado un permiso para operar. Se mantendrá

una copia de dicho plan y de toda enmienda al mismo en la facilidad hasta que el cierre se haya completado y así se certifique según la Regla I-805 A (7). El plan de cierre deberá indicar los pasos necesarios para cerrar parcial o completamente la facilidad en cualquier etapa de su vida útil y para cerrar completamente la facilidad al final de su vida operacional. El plan de cierre deberá por los menos, incluir:

- (1) Una descripción de cómo y cuándo la facilidad será cerrada parcialmente, si aplica, y cómo y cuando será cerrada finalmente. La descripción deberá identificar al máximo grado la operación de la facilidad y cómo se cumplirá con los requisitos de las Reglas I-805 A (2), I-805 A (5), I-805 A (6) y I-805 A (7) y los requisitos de cierre aplicables de las Reglas I-813 E, I-814 F, I-815 J, I-816 C, I-817 F, I-819 I y la Regla I-820 C.
- (2) Un estimado del inventario máximo de los desperdicios que estarán en almacenamiento y en tratamiento en cualquier momento durante la vida útil de la facilidad;
- (3) Una descripción de los pasos necesarios para la descontaminación de la facilidad y de su equipo durante el cierre; y
- (4) Un estimado del año en que se espera el cierre la facilidad y el itinerario para el cierre final de la misma. El itinerario deberá incluir, como mínimo, el tiempo total que se requiere para el cierre de la facilidad y el tiempo que requiere la intervención con las

actividades de cierre que permitan el seguimiento progresivo del cierre, (ej., en el caso de rellenos sanitarios, el tiempo estimado que se requiere para tratar y disponer de todo desperdicio inventariado y también deberá incluirse el tiempo que requiere la colocación de una cubierta final)."

Esta regla equivale al 40 CFR Sección 265.112 (a).

Se enmienda la Regla I-805 A (3) para que lea como sigue:

3. Los planes deberán ser sometidos y enmendados como sigue:

a. El dueño u operador someterá su plan de cierre a la Junta por lo menos 180 días antes de la fecha que espera comenzar con el cierre. El dueño u operador someterá su plan de cierre a la Junta no más de 15 días después de:

(i) La finalización del status interino (excepto cuando se emite un permiso a la facilidad simultáneamente con la finalización del status interino); o

(ii) La emisión de un decreto judicial u orden de cumplimiento bajo la Sección 3008 de la Ley Federal de Conservación y Recuperación de Recursos o la Ley de Política Pública Ambiental, Ley 9 del 18 de junio de 1970, para cesar de recibir desperdicios o cerrar;
o

- (iii) La emisión de una orden administrativa emitida por la Junta a estos efectos.

(COMENTARIO: La fecha para el comienzo del cierre deberá ser después de los 30 días en que se espera recibir el último volumen de desperdicios).

- b. La Junta proveerá al dueño u operador y al público, a través de un aviso público en el periódico, la oportunidad para someter comentarios por escrito sobre el plan y solicitar modificaciones al mismo dentro de 30 días de la fecha del aviso. Se podrá celebrar una vista publica a discreción de la Junta o la solicitud de parte, cuando la misma puede clarificar uno o más puntos de importancia concernientes al plan de cierre. La Junta dará un aviso público de la vista al menos 30 días antes de su celebración (el anuncio público sobre la vista podrá ser simultáneamente con el aviso sobre los comentarios por escrito y se podran combinar en uno solo). La Junta aprobará, modificará o desaprobará el plan dentro de 90 días desde que fue recibido. De no aprobar el mismo, el dueño u operador deberá modificar el plan o someter uno nuevo para la aprobación dentro de 30 días. La Junta aprobará o modificará este plan dentro de 60 días por escrito. De ser modificado por la Junta, este plan modificado se convertirá en el plan de cierre aprobado. La Junta se asegurará que el plan de cierre aprobado es consistente con

las Reglas I-805 A (2) (a) (1) y (2), I-805 A (5), (6), (7) de la subparte I y los requisitos aplicables de las Reglas 813 E, 817 F, 819 I, 816 C, I-814 F, I-815 J y 820 C de la subparte I. Una copia del plan modificado será enviada por correo al dueño u operador.

- c. El dueño u operador podrá enmendar su plan de cierre en cualquier momento durante la vida activa de la facilidad. (La vida activa de la facilidad es aquel período durante el cual los desperdicios se reciben periódicamente). El dueño u operador deberá enmendar su plan de cierre cada vez que hayan cambios en el plan de operaciones o en el diseño de la facilidad que afecte el plan de cierre, o cuando haya un cambio en el año en que se esperaba el cierre de la facilidad. El plan de cierre deberá ser enmendado dentro de los sesenta (60) días de ocurrir algún cambio.

Esta regla equivale al 40 CFR Sección 265.112 (c), (d) y (b), respectivamente.

Se enmienda la Regla I-805 A (7) para que lea como sigue:

- 7. Al completarse el cierre, deberá someterse a la Junta una certificación de cierre por el dueño u operador y por un ingeniero licenciado para ejercer la profesión en Puerto Rico y confirmando que la facilidad ha sido cerrada de acuerdo con los requisitos de esta regla.

Esta regla equivale al 40 CFR Sección 265.115.

Se enmienda la Regla I-805 B (1) (f) para que lea como sigue:

- f. El dueño u operador de una facilidad de disposición deberá proveer para el mantenimiento de cierre-posterior de acuerdo con el plan de cierre-posterior (descrito más adelante) por lo menos por un periodo de treinta (30) años después del cierre. De todas formas, este periodo de 30 días podrá ser descontinuado o alterado si el dueño u operador puede demostrar a satisfacción de la Junta que la facilidad de disposición no representa una amenaza a la salud humana o al ambiente. El finalizar el periodo de tiempo especificado, la Junta determinará si se continúa o se termina la custodia y el mantenimiento de cierre-posterior en la facilidad.

Esta regla equivale al 40 CFR 265.117 (a).

Se enmienda la Regla I-805 B (2) (a) para que en lo sucesivo lea como sigue:

2. El dueño u operador deberá someter también el plan de cierre-posterior a la Junta de acuerdo con los siguientes requisitos:
 - a. Seis (6) meses después de la fecha de vigencia de este reglamento, el dueño u operador de una facilidad de disposición de desperdicio sólido peligroso deberá tener un plan escrito de cierre-posterior. Deberá tenerlo en la facilidad hasta que comience el periodo de cuidado de cierre posterior. Este plan debe identificar las actividades que se llevarán a cabo después del cierre final y

las frecuencias de esas actividades y deberá hacerlo con suficiente detalle para demostrar a la Junta que serán satisfechos todos los requisitos de cierre-posterior. El plan de cierre-posterior deberá incluir por lo menos:

- (i) Una descripción de las actividades planificadas para el muestreo del agua subterránea y de las frecuencias en que éstas se efectuarán (según especificado en la Regla 804 de este reglamento) durante el cierre-posterior; y
 - (ii) Una descripción de las actividades de mantenimiento planificadas y las frecuencias con que las mismas serán efectuadas para asegurar que:
 - (a) La integridad de la capa y cubierta final u otra estructura de contención según se especifica en las Reglas 817 (B), 817 (F), 816 (C) y 819 (I), donde aplique, y
 - (b) El funcionamiento del equipo de muestreo de la facilidad según se especifica en la Regla 804.
- b. El dueño u operador podrá enmendar el plan de cierre-posterior cada vez que cambios en los planes de operación o el diseño de las facilidades afecten el plan de cierre-posterior.

- c. El dueño u operador de una facilidad de disposición de desperdicio sólido peligroso deberá someter su plan de cierre-posterior a la Junta a tenor con todos los procedimientos para conceder un permiso para operar establecidos en la Parte IX-I de este reglamento.
- d. El dueño u operador de una facilidad de desperdicio sólido peligroso deberá someter su plan de cierre-posterior a la Junta, por lo menos ciento ochenta (180) días antes de la fecha que espera comenzar el cierre. La Junta podrá modificar, aprobar o desaprobar el plan dentro de noventa (90) días a partir del recibo y luego de conceder al dueño u operador y al público en los periódicos) la oportunidad de someter comentarios por escrito. Cualquier enmienda al plan que ocurra después del cierre deberá también ser aprobada por la Junta.
- e. El plan de cierre-posterior (o periodo) puede ser modificado durante el periodo de cierre-posterior o al final del periodo de cierre-posterior de una de las siguientes maneras:
 - (1) El dueño u operador o cualquier miembro del público podrá solicitar a la Junta que extienda, reduzca o altere los requisitos del periodo de cierre-posterior basado en justa causa.
 - (1) La petición deberá incluir evidencia demostrando de que:

- (A) La naturaleza segura de la facilidad hace innecesario los requisitos del cierre posterior o sostiene una reducción en el periodo de cuidado de cierre-posterior especificado en el plan de cierre posterior corriente (Ejemplo: lixiviación o resultados del muestreo de agua subterránea, características del desperdicio, la aplicación de tecnología avanzada, métodos alternos de disposición, tratamiento, o técnicas de reutilización, indican que la facilidad es segura); o.....

Se enmienda la Regla I-805 D (4) para que en lo sucesivo lea como sigue:

4. El dueño u operador deberá someter a la Junta de Planificación y a la Junta de Calidad Ambiental un registro de tipo, ubicación y cantidad del desperdicio sólido peligroso dispuesto dentro de cada celda o área de la facilidad. El dueño u operador deberá identificar el tipo, ubicación y cantidad de desperdicios peligrosos dispuestos dentro de cada celda o área de la facilidad. Con relación a los desperdicios dispuestos antes de que estos reglamentos fueran promulgados, el dueño u operador deberá identificar el tipo, ubicación y cantidad de tal desperdicio de acuerdo con lo mejor de su conocimiento y de acuerdo con cualquier registro que haya mantenido.

Esta regla equivale al 40 CFR Sección 265.119.

Se enmienda la Regla I-807 I para que en lo sucesivo lea como sigue:

Regla I-807 I - Análisis Físico y Químico

1. (a) Todo dueño u operador de una facilidad de desperdicio sólido peligroso deberá obtener un análisis físico y químico detallado y completo de una muestra representativa de todo desperdicio que sea manejado en la facilidad antes de iniciar el tratamiento, almacenamiento o disposición de cualquier desperdicio sólido peligroso. Como mínimo, este análisis deberá incluir toda la información necesaria para tratar, almacenar o disponer del desperdicio de acuerdo con esta reglamentación.

(b) El análisis podrá incluir datos desarrollados de acuerdo con la Parte VI de esta reglamentación y la información existente publicada o documentada sobre desperdicios peligrosos o desperdicios generados de procesos similares.

(COMENTARIO: Por ejemplo, los registros de análisis de la facilidad realizados sobre el desperdicio antes de la fecha de vigencia de esta reglamentación, o los estudios realizados sobre el desperdicio peligroso generado de procesos similares a aquellos que generan el desperdicio a ser manejado en la facilidad, podrán ser incluidas en la información base requerida para cumplir con el párrafo 1 (a) de esta Regla. El dueño u operador de una facilidad fuera de su localización podrá llegar a un acuerdo con el generador del desperdicio sólido peligroso para que le supla parte o toda la información requerida en el

párrafo 1 (a) de esta Regla. Si el generador no suple la información, y el dueño u operador escoge aceptar el desperdicio peligroso, el dueño u operador es responsable de obtener la información requerida para cumplir con esta Regla.)

- (c) El análisis detallado del desperdicio deberá ser efectuado como mínimo anualmente o repetido tantas veces como sea necesario para asegurarse de que es correcto y que se mantiene al día. Como mínimo, el análisis deberá ser repetido:
 - (i) Cuando el dueño u operador es notificado, o tiene razones para creer que el proceso o la operación que genera el desperdicio peligroso ha cambiado; y
 - (ii) Para las facilidades fuera de su localización, cuando los resultados de la inspección requerida en el párrafo (1) (d) de esta Regla indiquen que el desperdicio sólido peligroso recibido en la facilidad no concuerda con el desperdicio designado en el manifiesto o en los papeles de embarque que los acompañan.
- (d) El dueño u operador de una facilidad de desperdicio sólido peligroso fuera de su localización deberá inspeccionar y si es necesario muestrear cada cargamento de camiones, embarque, o lote de desperdicio sólido peligroso designado para almacenamiento, tratamiento o disposición en la facilidad para determinar si la identidad de éste concuerda con el desperdicio especificado en el manifiesto, o en los papeles de embarque que los acompañan.

2. El dueño u operador debe desarrollar y seguir un plan escrito de análisis de desperdicio que describa los procedimientos que éste efectuará para cumplir con el párrafo (1) de esta Regla. Este se mantendrá en la facilidad. Como mínimo, el plan especificará:
 - (a) Los parámetros para los cuales cada desperdicio peligroso deberá ser analizado y la razón para la selección de estos parámetros. (También demostrar cómo el análisis para estos parámetros proporcionará suficiente información sobre las propiedades del desperdicio para cumplir con el párrafo (1) de esta Regla);
 - (b) El método a utilizarse para probar estos parámetros;
 - (c) El método de toma de muestras que será utilizado para obtener una muestra representativa del desperdicio a ser analizado. Una muestra representativa puede ser obtenida utilizando uno de los siguientes métodos:
 - (i) Uno de los métodos de muestreo descritos en el Anejo B-2 este reglamento; o
 - (ii) Un método de muestreo equivalente según aprobado por la Junta de Calidad Ambiental.
 - (d) La frecuencia con que el análisis original del desperdicio debe ser revisado o repetido para garantizar que el mismo es correcto y se encuentra al día;

- (e) Para las facilidades fuera de su localización el análisis del desperdicio que los generadores de desperdicios peligrosos han acordado suplir; y
 - (f) Cuando apliquen, los métodos a utilizarse para cumplir los requisitos adicionales de análisis de desperdicio para métodos específicos de manejo de desperdicios según las Reglas I-813 C, I-817 C, I-818 C, I-819 C, I-816 F, I-814 D, I-815 E, y I-820 B de este Reglamento.
3. Para facilidades fuera de su localización, el plan de análisis de desperdicio requerido en el párrafo (2) de esta regla debe especificar también los procedimientos que serán utilizados para inspeccionar y si es necesario, analizar todo movimiento de desperdicio peligroso recibido en la facilidad para garantizar que es exacto al desperdicio designado en el manifiesto que los acompaña o los papeles de embarque. Como mínimo, este plan debe describir:
- (a) Los procedimientos que serán utilizados para determinar la identidad de todo movimiento de desperdicio manejado en la facilidad; y
 - (b) Los métodos de análisis que serán utilizados para obtener una muestra representativa del desperdicio a ser identificado, si el método de identificación incluye muestreo.
4. Ningún dueño u operador deberá aceptar cualquier desperdicio sólido peligroso a menos que el receptáculo en el que se transporta el desperdicio tenga fijado un rótulo de identificación incluyendo lo siguiente:

- a. Nombre del generador,
 - b. Tipo de desperdicio,
 - c. Nombre genérico del componente predominante del desperdicio peligroso,
 - d. Fecha de envasado, y
 - e. Número del manifiesto.
5. Cualquier dueño u operador de una facilidad de desperdicio sólido peligroso no deberá tratar o disponer de desperdicio inflamable, corrosivo, tóxico, reactivos, volátiles o incompatibles en un relleno, embalse superficial, o facilidad de tratamiento en el terreno, a menos que el dueño u operador pueda demostrar a la Junta, en el momento de solicitar un permiso de operación que tal facilidad de tratamiento o de disposición no habrá de:
- a. Afectar la integridad estructural de la facilidad de tratamiento, embalse superficial, o relleno, o
 - b. Afectar la capacidad de atenuación de la facilidad de tratamiento en el terreno a través de la generación de calor, fuegos o reacciones explosivas.

Esta Regla I-807 I equivale al 40 CFR Sección 265.13.

Se enmienda la Regla I-808 C que en lo sucesivo leerá:

Regla I-808 C - Adiestramiento del Personal

1. (a) El personal de la facilidad, deberá completar satisfactoriamente un programa de instrucción o adiestramiento en el trabajo que los capacite para efectuar sus labores en forma tal que asegure el cumplimiento de la facilidad con los requisitos de este reglamento. El dueño u operador, deberá asegurarse que dicho programa incluya todos los elementos descritos en el documento requerido bajo el párrafo 4(c) de esta Regla.

(b) Este programa deberá ser dirigido por una persona adiestrada en los procedimientos de manejo de desperdicio peligroso y deberá incluir lecciones que enseñen al personal de la facilidad los procedimientos para el manejo de los desperdicios peligrosos (incluyendo la implementación del plan de contingencia) que son relevantes a las posiciones en las cuales ellos están empleados.

(c) Como mínimo, el programa de adiestramiento deberá ser diseñado para garantizar que el personal de la facilidad pueda responder efectivamente a las emergencias, familiarizándolos con los procedimientos equipo y sistemas de emergencia, incluyendo donde sea aplicable:

(i) Procedimientos para utilizar, inspeccionar, reparar y reponer el equipo de emergencia y monitoría de la facilidad.

- (ii) Controles claves para el cierre automático de los alimentadores del desperdicio.
 - (iii) Los sistemas de comunicación o alarmas.
 - (iv) Procedimientos de reacción a fuegos o explosiones;
 - (v) Procedimientos de reacción a incidentes de contaminación del agua subterránea.
 - (vi) Procedimientos para el cese de operaciones.
2. El personal de la facilidad deberá completar satisfactoriamente el programa de instrucción requerido anteriormente en el Párrafo 1 dentro de seis (6) meses después de la fecha de vigencia de esta reglamentación o dentro de seis meses a partir de la fecha de empleo o nombramiento a una facilidad, o que se le asigne a una nueva posición en la facilidad, el plazo que resultase mayor. Aquellos empleados reclutados después de la fecha de vigencia de esta reglamentación no podrán trabajar en posiciones no supervisadas hasta tanto hayan completado los requisitos de adiestramiento del Párrafo 1 de esta Regla.
3. El personal de la facilidad deberá tomar un repaso anual del adiestramiento inicial requerido en el Párrafo 1(a) de esta Regla.
4. El dueño u operador mantendrá los siguientes documentos y registros en la facilidad:

- (a) El título del puesto para cada posición en la facilidad relacionada con el manejo de desperdicios peligrosos y el nombre del empleado ocupando cada puesto.
 - (b) Una descripción escrita del puesto para cada posición mencionada en el párrafo 4(a) de esta Regla. Esta descripción deberá ser consistente en su especificidad con las descripciones de otras posiciones similares en la misma compañía, pero deberá incluir los requisitos de destrezas, educación u otras calificaciones y deberes del personal de la facilidad asignado a cada posición;
 - (c) Una descripción escrita del tipo y cantidad de los adiestramientos introductorios y continuos que serán ofrecidos a cada persona ocupando una posición de las mencionadas en el párrafo 4(a) de esta Regla.
 - (d) Registros que comprueben que los adiestramientos o experiencia de trabajo requerido según párrafos (1), (2) y (3) de esta Regla han sido ofrecidos y completados por el personal de la facilidad.
5. Los registros de adiestramiento del personal activo deberán mantenerse hasta el cierre de la facilidad. Los registros de adiestramiento de personal anterior deben mantenerse al menos por un periodo de tiempo de tres (3) años contados a partir de la fecha en que el empleado trabajó por última vez en la facilidad. Los

registros de adiestramiento de personal pueden estar acompañados por los de personal transferido dentro de la misma compañía.

Esta Regla equivale al 40 CFR Sección 265.16.

Se enmienda la Regla I-814 A para que lea como sigue:

Regla I-814 Incineradores

A. Aplicabilidad

1. Esta regla aplica a los dueños u operadores de facilidades que tratan desperdicios sólidos peligrosos en incineradores, excepto según se dispone de otra manera en la Regla II-801. Los siguientes dueños u operadores de facilidades se considera que incineran desperdicios peligrosos:
 - a) Dueños u operadores de incineradores de desperdicios peligrosos según definido en la Parte I.
 - b) Dueños u operadores que queman desperdicios peligrosos en calderas de vapor o en hornos industriales de manera que se destruyan los mismos, o que queman desperdicios peligrosos en calderas u hornos industriales para propósitos de reciclaje y eligen ser regulados por esta regla.

2. Dueños y operadores de incineradores quemando desperdicios peligrosos están exentos de los requisitos de esta regla excepto de la Regla I-814 F (cierre), siempre que el dueño u operador haya documentado por escrito que el desperdicio no se espera que contenga alguno de los constituyentes peligrosos listados en 40 CFR Parte 261, Apéndice VIII y dicha documentación sea retenida en la facilidad, si el desperdicio que será quemado:
- a) Está clasificado como desperdicio peligroso en la Parte VI de este Reglamento, únicamente porque es inflamable (Código de Peligro I), corrosivo (Código de Peligro C), o ambos; o
 - b) Está clasificado como desperdicio peligroso en la Parte VI de este Reglamento, únicamente porque es reactivo (Código de Peligro R) por otras características que las mencionadas en la Regla 604 C (3) y (4), y no serán quemados cuando estén presentes en la zona de combustión otros desperdicios peligrosos; o
 - c) Es un desperdicio peligroso únicamente porque posee la característica de inflamable, corrosivo, o ambas, según determinado por la prueba para características de desperdicios peligrosos incluidas en la Parte VI de este Reglamento; o

- d) Es un desperdicio peligroso únicamente porque posee la característica de reactividad descrita por la Regla 604 C (1), (2), (3), (6), (7) u (8) de este Reglamento, y no será quemado cuando estén presentes en la zona de combustión otros desperdicios peligrosos.

Esta regla corresponde al 40 CFR Sección 265.340.

Se enmienda la Regla I-814 para añadirle un nuevo inciso G que leerá como sigue:

G. Status Interino para Incineradores quemando Desperdicios Peligrosos Particulares.

1. Dueños u operadores de incineradores sujetos a esta regla podrán quemar desperdicios peligrosos F020, F021, F022, F023, F026 u F027 si reciben una certificación de la Junta de que ellos pueden reunir las normas de cumplimiento de la Regla II-815 de este reglamento cuando quemen estos desperdicios.
2. Las siguientes normas y procedimientos serán utilizadas en determinar si se certifica un incinerador:
 - a) El dueño u operador someterá una solicitud a la Junta conteniendo la información aplicable de las Reglas I-903 F y I-906, demostrativa de que el incinerador puede satisfacer las normas de cumplimiento de la Regla II-815 de este reglamento cuando quemen estos desperdicios.

- b) La Junta emitirá una decisión tentativa de si el incinerador puede satisfacer las normas de cumplimiento de la Regla II-815 de este reglamento. La decisión tentativa se notificará mediante un aviso público en un periódico y por radio en la jurisdicción donde se encuentra localizado el incinerador. La Junta aceptará comentarios sobre la decisión tentativa por un periodo 60 días y podrá a su discreción o a petición de parte interesada celebrar una vista pública al respecto.
- c. Luego de finalizar el periodo para que el público comente la Junta emitirá su decisión de certificar o no al incinerador.

Este inciso equivale al 40 CFR Sección 265.352.

Se enmienda la Regla I-815 A para que lea como sigue:

Regla I-815 Tratamiento Termal

A. Aplicabilidad

1. Esta regla aplica a los dueños u operadores de facilidades que tratan termalmente los desperdicios sólidos peligrosos en otros artefactos que utilizan combustión controlada por medio de flama, excepto cuando la Regla I-801 provea de otra manera. El tratamiento termal en artefactos encerrados que utilizan combustión controlada por medio de flama estarán sujetos a los requisitos establecidos en la Regla I-814 si la unidad es un incinerador.

Esta regla corresponde con el 40 CFR Sección 265.370.

Se enmienda la Regla I-815 para añadirle un nuevo inciso K que lee como sigue:

K. Status Interino para Artefactos de Tratamiento Termal Quemando Desperdicios Peligrosos Particulares.

1. Dueños u operadores de artefactos de tratamiento termal sujetos a esta regla podrán quemar desperdicios peligrosos F020, F021, F022, F023, F026 O F027 si reciben una certificación de la Junta de que pueden cumplir las normas de cumplimiento de la Regla II-815 cuando quemen estos desperdicios.
2. Las siguientes normas y procedimientos serán utilizados en determinar si se certifica a una unidad de tratamiento termal:
 - a) El dueño u operador someterá una solicitud a la Junta conteniendo la información aplicable de las Regla I-903 F y I-906, demostrativa de que la unidad de tratamiento termal puede satisfacer las normas de cumplimiento de la Regla II-815 de este reglamento cuando quemen estos desperdicios.
 - b) La Junta emitirá una decisión tentativa de si la unidad de tratamiento termal puede satisfacer las normas de cumplimiento de la Regla II-815 de este reglamento. La decisión tentativa se notificará mediante un aviso público en un periodico y por radio en la jurisdicción donde se encuentra localizada la unidad de tratamiento termal. La Junta aceptará comentarios

sobre la decisión tentativa por un periodo de 60 días y podrá a su discreción o a petición de parte interesada celebrar una vista pública al respecto.

- c) Luego de finalizar el periodo para el público comente la Junta emitirá su decisión de certificar o no a la unidad de tratamiento termal.

Este nuevo inciso equivale al 40 CFR Sección 265.383.

Regla I-816 B

1. El dueño u operador de un relleno para desperdicio peligroso deberá instalar dos o más revestimientos y un sistema de recolección de lixiviación sobre y entre dichos revestimientos, de acuerdo con el párrafo (3) de esta Regla I-816 B con respecto a cada nueva unidad, al reemplazo de una unidad existente, o la expansión lateral de una unidad existente, que esté dentro del área identificada en la Parte A de la solicitud de permiso, y con respecto al desperdicio recibido empezando en mayo 8 de 1985.
2. El dueño u operador de cada unidad de aquellas mencionadas en el primer párrafo de esta Regla, deberá notificar a la Junta con por lo menos 60 días de anticipación al recibo del desperdicio. El dueño u operador de cada facilidad que someta dicha notificación deberá radicar la Parte B de la solicitud de permiso dentro de los 6 meses del recibo de dicha notificación.

3. El párrafo (1) de esta Regla no aplicará si el dueño u operador le demuestra a la Junta y ésta encuentra que para dicho relleno sanitario, las practicas alternas de operación y de diseño con las características de la localización, evitarían la migración de cualquier constituyente peligroso hacia el agua subterránea o superficial al menos tan efectivamente como lo harían los revestimientos y los sistemas de recolección de lixiviación.
4. La Junta puede eximir el requisito de doble revestimiento establecido en el primer inciso de esta regla para cualquier "monofill" (embalse que contiene solo un tipo de desperdicio) si:
 - a. El "monofill" contiene tan solo desperdicios peligrosos provenientes de los controles de emisión de los hornos de fundición o de la arena utilizada para la moldura en la fundición de metales, y dichos desperdicios no contienen constituyentes que produzcan desperdicios peligrosos por otras razones que las características de toxicidad por el procedimiento de extracción (EP Toxicity characteristics) establecidas en la Regla 604 D; y
 - b. (i) (A) El "monofill" posee al menos un revestimiento del cual no hay evidencia de que este filtrando. Para propósitos de esta regla, cuando hablamos de revestimiento nos referimos al revestimiento diseñado, construido, instalado y operado para evitar que desperdicios peligrosos pasen dentro del mismo en cualquier momento durante la vida activa de la facilidad o para evitar que

desperdicios peligrosos migren mas allá del revestimiento hacia el subsuelo adyacente, agua subterránea o superficial en cualquier momento durante la vida activa de la facilidad. En caso de que cualquier embalse superficial exento de los requisitos de la Regla I-817 B (1) a base de un revestimiento diseñado, construido, instalado y operado para evitar que los desperdicios peligrosos pasen mas allá del revestimiento, al cierre de dicho embalse el dueño u operador deberá, al grado que sea práctico, remover o descontaminar todo residuo de desperdicio, todo material de revestimiento contaminado y todo terreno contaminado. Si todo el terreno contaminado no es removido o descontaminado, el dueño u operador de dicho embalse deberá cumplir con los requisitos apropiados del periodo de cierre posterior incluyendo pero no limitado a monitoría de agua subterránea y acción correctiva.

- (B) El "monofill" esta localizado a mas de un cuarto de milla de la fuente subterránea de agua potable; y
- (C) El "monofill" cumple con los requisitos generalmente aplicables de monitoría de agua subterránea para facilidades con permiso bajo esta parte y la Sección 3005 (c) de RCRA.

- (ii) El dueño u operador demostrará que el "monofill" esta localizado, diseñado y operado de manera tal que asegure que no habrá constituyente peligroso que migre hacia el agua subterránea o superficial en el futuro.

- 5. En caso de que alguna unidad en donde se haya instalado un revestimiento y sistema de recolección de lixiviación según requisitos del inciso (1) de esta regla y que cumpla de buena fe con dicho inciso y con los documentos y guías que regulan los revestimientos y sistemas de recolección de lixiviación bajo el inciso (1) de esta regla, ningún revestimiento o sistema de recolección de lixiviación que sea diferente de aquel que fue instalado según el inciso (1) de esta regla se requerirá por la Junta para dicha unidad al expedir el primer permiso a esa facilidad, excepto que la Junta no excluirá el requerir la instalación de un nuevo revestimiento cuando tenga razones para creer que algún revestimiento instalado de acuerdo con los requisitos de esta regla esta filtrando.

Se enmienda la Regla I-816 C (4) para que en lo sucesivo lea como sigue:

- (4) 1. Al cierre final del relleno o cualquier celda, el dueño u operador colocará una cubierta final sobre los mismos, diseñada y construida para:
 - a. Proveer por largo término la reducción al mínimo de la migración de líquidos hacia el relleno cerrado;
 - b. Funcionar con el mantenimiento mínimo;

- c. Promover el drenaje y reducir al mínimo la erosión y abrasión de la cubierta;
 - d. Ajustar los hundimientos y desplomes de modo que se mantenga la integridad de la cubierta; y
 - e. Tener una permeabilidad menor o igual a la permeabilidad de cualquier sistema inferior de revestimiento o subsuelo natural presente.
2. Después del cierre final, el dueño u operador deberá cumplir con todos los requisitos de cierre posterior contenidos en las Reglas I-805 B (1) (f) a I-805 C, incluyendo mantenimiento y monitoría durante todo el periodo de cierre posterior. El dueño u operador deberá:
- a. Mantener la integridad y efectividad de la cubierta final, incluyendo el hacer reparaciones a la cubierta que sean necesarias para corregir los efectos de hundimiento, desplome, erosión u otros eventos;
 - b. Mantener y supervisar el sistema de monitoría de agua subterránea y cumplir con todo otro requisito aplicable de la Regla I-804;
 - c. Evitar que las escorrentías hacia y desde la facilidad puedan corroer o de otra manera dañar la cubierta final; y

- d. Proteger y mantener las marcas fijadas establecidas por levantamiento topográfico usadas en el cumplimiento con la Regla I-816 B (6).

Este inciso corresponde con el 40 CFR Sección 265.310.

Se enmienda la Regla I-816 D para añadir un inciso (b) que leerá como sigue:

Desperdicios inflamables en receptáculos podrán ser dispuestos en rellenos sin reunir los requisitos del primer párrafo de esta Regla si son dispuestos de manera tal que sean protegidos de cualquier material o condiciones que pudieran causar que los mismos se incendien. Como mínimo, los desperdicios inflamables deberán ser dispuestos en receptáculos que no tengan escapes, manejados y colocados cuidadosamente para evitar el calor, chispas, roturas, u otra condición que pudiera causar el incendio de los desperdicios, deberán estar cubiertos diariamente con tierra u otro material no combustible para minimizar el potencial de incendio de los desperdicios y no deberán ser dispuestos en celdas que contengan o puedan contener otros desperdicios que pudieran generar suficiente calor como para causar el incendio del desperdicio.

Este inciso equivale al 40 CFR Sección 265.312.

Se enmienda la Regla I-816 F para que lea como sigue:

2. Receptáculo conteniendo líquidos libres no podrán colocarse en un relleno, a menos que:
 - a. Todo líquido libre sostenido que haya sido removido por decantación u otro método que haya sido mezclado con un absorbente o solidificado a fin de que el líquido libre no se observe, o sea de otra manera eliminado; o
 - b. El receptáculo sea muy pequeño, tal como una ampolleta; o
 - c. El receptáculo esta diseñado para contener los líquidos libres para otro uso que no sea el almacenamiento, tal como una batería o condensador; o
 - d. El receptáculo es un receptáculo sobre forrado ("paquetes de laboratorio") según se define y se dispone del mismo en la Regla I-816 H.
3. Para demostrar la ausencia o presencia de líquidos libres a un desperdicio en un receptáculo a granel se utilizará la prueba: Método 9095 según decrito en Método de Análisis para evaluar desperdicios sólidos métodos físicos y químicos (Publicación de la APA No. SW-846).
4. La fecha para cumplir con el párrafo (1) de esta regla es el 19 de noviembre de 1981. La fecha para cumplir con el párrafo (3) de esta regla es el 22 de marzo de 1982.

5. Efectivo el 8 de noviembre del 1985 se prohíbe colocar cualquier líquido que no sea desperdicio peligroso en un relleno a menos que el dueño u operador de dicho relleno le demuestre a la Junta, o ésta determine que:

- a) La única alternativa razonablemente disponible para la colocación del líquido es en dicho relleno o en un embalse superficial sin revestimiento, que contenga o razonablemente se anticipe que contenga desperdicios peligrosos, aunque no tenga permiso u esté operando bajo status interino; y
- b) La colocación en el relleno de dicho dueño u operador no representaría un riesgo de contaminación a alguna fuente subterránea de agua potable.

Este inciso equivale al 40 CFR Sección 265.314.

Se enmienda el lenguaje de la Regla I-816 G, que en lo sucesivo leerá:

G. Requisitos Especiales para la Disposición de Receptáculos.

A menos que los receptáculos sean muy pequeños tal como una ampollita; deberán:

- 1. Por lo menos estar llenos en un 90% cuando sean colocados en el relleno; o
- 2. Todo receptáculo vacío debiera ser aplastado, triturado o reducido en volumen, al grado máximo posible en el relleno.

Esta Regla equivale al 40 CFR Sección 265.315.

Se enmienda la Regla I-817 B para que en lo sucesivo lea como sigue:

B. Requisitos de Diseño

1. El dueño u operador de un embalse superficial deberá instalar dos o mas revestimientos y un sistema de recolección de la lixiviación según la Regla II-811 B (3), con relación a cada nueva unidad, reemplazo de una unidad existente o expansión lateral de una unidad existente que esta dentro del área identificada en la Parte A de la solicitud de permiso y relacionado a los desperdicios recibidos a principios de mayo 8 de 1985.
2. El dueño u operador de cada unidad mencionada en el inciso (1) de esta regla deberá notificar a la Junta con por lo menos 60 días de anticipación al recibo de desperdicios. El dueño u operador de cada facilidad que someta el aviso deberá radicar la Parte B de la solicitud de permiso dentro de los 6 meses del recibo de dicho aviso.
3. El inciso (1) de regla no aplicará si el dueño u operador le demuestra a la Junta y ésta, a su vez, encuentra para dicho embalse superficial que prácticas alternas de operación y de diseño en conjunto con las características de la localización pueden evitar que cualquier constituyente peligroso migre hacia el agua subterránea o superficial por lo menos tan efectivamente como dichos revestimientos y sistemas de recolección de lixiviación.

4. La Junta puede eximir el requisito de doble revestimiento establecido en el primer inciso de esta regla para cualquier "monofill" (embalse que contiene solo un tipo de desperdicio) si:
 - a. El "monofill" contiene tan solo desperdicios peligrosos provenientes de los controles de emisión de los hornos de fundición o de la arena utilizada para la moldura en la fundición de metales, y dichos desperdicios no contienen constituyentes que produzcan desperdicios peligrosos por otras razones que las características de toxicidad por el procedimiento de extracción (EP Toxicity characteristics) establecidas en la Regla 604 D; y
 - b. (i) (A) El "monofill" posee al menos un revestimiento del cual no hay evidencia de que este filtrando. Para propósitos de esta regla, cuando hablamos de revestimiento nos referimos al revestimiento diseñado, construido, instalado y operado para evitar que desperdicios peligrosos pasen dentro del mismo en cualquier momento durante la vida activa de la facilidad o para evitar que desperdicios peligrosos migren mas allá del revestimiento hacia el subsuelo adyacente, agua subterránea o superficial en cualquier momento durante la vida activa de la facilidad. En caso de que cualquier embalse superficial exento de los requisitos de la Regla I-817 B (1) a base de un revestimiento diseñado, construido, instalado y operado para evitar que los desperdicios peligrosos pasen mas allá del revestimiento, al cierre de dicho embalse el dueño u operador deberá, al grado que sea

práctico, remover o decontaminar todo residuo de desperdicio, todo material de revestimiento contaminado y todo terreno contaminado. Si todo el terreno contaminado no es removido o decontaminado, el dueño u operador de dicho embalse deberá cumplir con los requisitos apropiados del periodo de cierre posterior incluyendo pero no limitado a monitoría de agua subterránea y acción correctiva.

(B) El "monofill" esta localizado a mas de un cuarto de milla de la fuente subterránea de agua potable; y

(C) El "monofill" cumple con los requisitos generalmente aplicables de monitoría de agua subterránea para facilidades con permiso bajo esta parte y la Sección 3005 (c) de RCRA.

(ii) El dueño u operador demostrará que el "monofill" esta localizado, diseñado y operado de manera tal que asegure que no habrá constituyente peligroso que migre hacia el agua subterránea o superficial en el futuro.

5. En caso de que alguna unidad en donde se haya instalado un revestimiento y sistema de recolección de lixiviación según requisitos del inciso (1) de esta regla y que cumpla de buena fe con dicho inciso y con los documentos y guías que regulan los revestimientos y sistemas de recolección de lixiviación bajo el inciso (1) de esta regla, ningún revestimiento o sistema de recolección de lixiviación que sea diferente de aquel que fue instalado según el inciso (1) de esta regla se requerirá por la Junta para dicha unidad al expedir el

primer permiso a esa facilidad, excepto que la Junta no excluirá el requerir la instalación de un nuevo revestimiento cuando tenga razones para creer que algún revestimiento instalado de acuerdo con los requisitos de esta regla esta filtrando.

Esta Regla I-817 B es equivalente al 40 CFR Sección 265.221.

Se enmienda la Regla I-817 B (17) para que en lo sucesivo lea como sigue:

17. Un embalse superficial debe mantener suficiente espacio libre para prevenir cualquier desbordamiento del dique causado por haberse llevado en exceso, acción de las olas o una tormenta. El espacio libre debe ser de al menos 60 centímetros (dos pies).

Esta enmienda es mas restrictiva que el 40 CFR Sección 265.222.

Se enmienda la Regla I-817 G en su segundo inciso para sustituir el lenguaje del mismo y añadir a su vez un nuevo inciso (3) los que leerán como sigue:

2. (a) El desperdicio sea manejado de manera tal que se encuentre protegido de cualquier material o condición que pueda causar que éste reaccione o se incendie; y

- (b) El dueño u operador obtendrá una certificación de un químico cualificado o ingeniero licenciado para practicar la profesión en Puerto Rico que, a su mejor entender y opinión, certifique que el diseño estructural y el plan de operaciones de la facilidad evitarían que este reaccione o se inflame;
y

3. El embalse superficial se utilice exclusivamente para emergencias.

Ambos incisos de la Regla I-817 G equivale al 40 CFR Sección 265.229 (b) (1), (2) y (c).



Se enmienda la Regla 207 y se sustituye por el siguiente texto:

Regla 207 - Plan de Operación

1. Toda facilidad de desperdicio sólido será de acuerdo con un plan de operación escrito sometido a, y aprobado por la Junta. Cada plan de operación será preparado en conformidad con este reglamento y de acuerdo con cualesquiera otras guías que la Junta pueda adoptar posteriormente.
2. Cada plan de operación proporcionará procedimientos de emergencias diseñados para evitar que ocurran accidentes o interrupciones, así como para reaccionar a ellos o para evitar daños a la salud humana o al ambiente. Como mínimo, los procedimientos de emergencias estarán conformes con las disposiciones establecidas por la APA relativas a los "Planes de Prevención, Control y Contramedidas de los Derrames", Sección 311 de la Ley de Agua Limpia. Incluirá además los nombres, direcciones y teléfonos de todas las personas designadas para actuar como coordinadores de emergencias; un listado con la descripción física de las condiciones y capacidad del equipo de emergencia; un plan de evacuación; y un bosquejo del programa de adiestramiento para emergencias que se ofrecerá a los empleados.
3. Copia de los procedimientos de emergencias en el plan de operación deberá ser radicada en la Junta; la Oficina Regional del Departamento de Salud; la Policía Local; la Defensa Civil; el Servicio de Bomberos; y el hospital local o regional.



-VII-

40 CFR 266

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTE XI



Se enmienda el Reglamento para el Control de los Desperdicios Sólidos Peligrosos y No-Peligrosos para añadir lo siguiente como Parte XI:

Parte XI Normas para el Manejo de Desperdicios Peligrosos Específicos y Tipos Específicos de Facilidades para el Manejo de Desperdicios Peligrosos.

Regla 1101-1102 (Reservada)

Regla 1103 Materiales Reciclables Utilizados en una Forma que Constituya Disposición.

A. Aplicabilidad

1. Esta regla es aplicable a los materiales reciclables que son aplicados o colocados en el terreno:

a. Sin mezclarlos con cualquier otra substancia (s); o

b. Después de mezclarlos con cualquier otra substancia (s), a menos que el material reciclable sufra una reacción química de forma que se vuelve inseparable de la otra substancia (s) por medios físicos; o

c. Después de combinarlos con cualquier otra substancia (s) si el material combinado resultante no es producido para uso público general. Estos materiales se mencionarán a través de esta Regla como "materiales utilizados en una forma que constituye disposición."

2. Los productos producidos para el uso público general que son utilizados en una forma que constituya disposición y que contienen materiales reciclables no estarán sujetos a reglamentación si los materiales reciclables han sufrido una reacción química en el curso de producir el producto de forma tal que se vuelva inseparable por medios físicos. Fertilizantes comerciales que son producidos para el uso público general y que contienen materiales reciclables tampoco estarán sujetos a reglamentación.

- B. Normas aplicables a generadores y transportadores de materiales utilizados en una forma que constituya disposición.

Generadores y transportadores de materiales que son utilizados en una forma que constituya disposición están sujetos a los requisitos aplicables de las Partes V y VII de este reglamento, y a los requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8).

- C. Normas aplicables a almacenadores de materiales que van a ser utilizados en una forma que constituya disposición y que no son los últimos usuarios.

Los dueños u operadores de facilidades que almacenan materiales reciclables que serán utilizados en una forma que constituya disposición, pero que no son los últimos usuarios de los materiales, están reglamentados bajo todas las disposiciones aplicables de las Reglas II-801 a II-812, I-801 a

I-818, 502 a 505, de la Parte IX-I de este reglamento y de los requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8).

D. Normas aplicables a usuarios de materiales que son utilizados en una forma que constituye disposición.

1. Los dueños u operadores de facilidades que utilizan materiales reciclables en una forma que constituye disposición están reglamentados bajo todas las disposiciones aplicables de las Reglas II-801 a II-814, I-801 a I-818, 502 a 505, de la Parte IX-I de este reglamento y de los requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8). (Estos requisitos no aplican a los productos que contienen estos materiales reciclables bajo las disposiciones de la Regla 1103 A (2) de este reglamento).

2. El uso de desperdicio o aceite usado u otro material que este contaminado con dioxina o cualquier otro desperdicio peligroso (excepto aquel identificado solamente como inflamable), para supresión de polvo o para tratamiento de las carreteras, esta prohibido.

Regla 1104 Desperdicio Peligroso Quemado para el Recobro de Energía.

A. Aplicabilidad

1. Esta regla es aplicable a los desperdicios peligrosos que son quemados para el recobro de energía en cualquier caldera u horno industrial que no está reglamentado bajo las

Reglas I-814 6 II-815 de este reglamento, excepto lo que se provee en el inciso A (2) de esta regla. Estos desperdicios peligrosos quemados para el recobro de energía serán denominados como "combustible de desperdicio peligroso". El combustible producido de los desperdicios peligrosos por medio del procesamiento, mezclado de desperdicio peligroso o de cualquier otro tratamiento es también combustible de desperdicio peligroso. (Esta regla no aplica, sin embargo, al gas recobrado de actividades de manejo de desperdicio peligroso cuando ese gas es quemado para el recobro de energía).

2. Los siguientes desperdicios peligrosos no están sujetos a reglamentación bajo esta regla:
 - a. Aceite usado quemado para el recobro de energía que es también un desperdicio peligroso solamente porque exhibe una característica de desperdicio peligroso identificado en la Regla 604 de este reglamento. Dicho aceite usado esta sujeto a reglamentación bajo la Regla 1105 y no bajo esta regla; y
 - b. Desperdicios peligrosos que están exentos de reglamentación bajo las exclusiones de materiales que no son desperdicio sólido y la Regla 606 B (1) (c) (5)-(9) de este reglamento, y desperdicios peligrosos que están sujetos a los requisitos especiales para generadores de pequeñas cantidades bajo la Regla 606 A de este reglamento.

B. Prohibiciones

1. Una persona puede mercadear combustible de desperdicios peligrosos sólo:
 - a. A personas que han notificado a la Junta de sus actividades de combustible de desperdicios peligrosos y a la APA bajo la Sección 3010 de RCRA (Anejo C-8) y que tienen un número de identificación asignado por la APA; y
 - b. A personas que quemen el combustible en calderas u hornos industriales identificado en el inciso B (2) de esta regla, si el combustible es quemado.
2. El combustible de desperdicios peligrosos puede ser quemado para el recobro de energía sólo en los siguientes aparatos:
 - a. Hornos industriales identificados en la Regla 102 de este reglamento;
 - b. Calderas, como se define en la Regla 102 de este reglamento, que estén identificadas como sigue:
 - (1) Calderas industriales localizadas en una facilidad que utiliza un proceso manufacturero donde las sustancias son transformadas en nuevos productos, incluyendo partes que componen el producto, por procesos mecánicos o químicos; o

- (2) Calderas de Servicio utilizadas para producir energía eléctrica, vapor, o aire caliente o frío u otros gases o fluidos para la venta.

3. Ningún combustible que contenga cualquier desperdicio peligroso puede ser quemado en ningún horno de cemento que esté localizado dentro de los límites de cualquier municipalidad con una población mayor de 500,000 (basada en el mas reciente censo estadístico) a menos que ese horno cumpla completamente con la reglamentación aplicable a incineradores.

C. Normas aplicables a generadores de combustible de desperdicio peligroso.

1. Generadores de desperdicio peligroso que es utilizado como combustible o para producir un combustible están sujetos a las Reglas 502-505 y 702-705 de este reglamento.
2. Generadores que mercadean combustible de desperdicio peligroso a un quemador también están sujetos al inciso E de esta regla.
3. Generadores que queman combustible de desperdicio peligroso también están sujetos al inciso F de esta regla.

- D. Normas aplicables a transportadores de combustible de desperdicio peligroso.

Transportadores de combustible de desperdicio peligroso (y desperdicio peligroso utilizado para producir combustible) están sujetos a las Reglas 504, 505, 706 y 707 de este reglamento.

- E. Normas aplicables a mercaderes de combustible de desperdicio peligroso.

Aquellas personas que mercadean combustible de desperdicio peligroso serán denominadas como "mercaderes", y están sujetos a los siguientes requisitos. Entre los mercaderes se incluyen generadores que mercadean combustible de desperdicio peligroso directamente a un quemador, personas que reciben desperdicio peligroso de generadores y producen, procesan o mezclan combustible de desperdicio peligroso de estos desperdicios peligrosos y personas que distribuyen pero no procesan o mezclan combustible de desperdicio peligroso.

1. Prohibiciones. Las prohibiciones bajo el inciso B (1) de esta regla;
2. Notificación. Los requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8), con copia a la Junta, para las actividades de combustible de desperdicio peligroso. Aún cuando un mercader haya notificado previamente a la APA de sus actividades de manejo de desperdicios

peligrosos y haya obtenido un Número de Identificación de la APA, debe volver a notificar para identificar sus actividades con combustible de desperdicio peligroso;

3. Almacenaje. Las disposiciones aplicables de las Reglas 704 D, II-801 a II-812, I-801 a I-818 y la Parte IX-I de este reglamento;
4. Embarque fuera de la facilidad. Las normas para generadores establecidas en las Reglas 503 a 505 y 702 a 705 de este reglamento cuando un mercader inicia un envío de combustible de desperdicio peligroso;
5. Notificaciones requeridas.

- a. Antes de que un mercader inicie el primer envío de combustible de desperdicio peligroso a un quemador o a otro mercader, debe obtener una notificación escrita y firmada del quemador o mercader certificando que:

- (1) El quemador o mercader ha notificado a la APA bajo la Sección 3010 de RCRA (Anejo C-8) (enviando copia a la Junta) y ha identificado sus actividades de quema de desperdicio como combustible; y

(2) Si el recipiente es un quemador, el quemador deberá quemar el combustible de desperdicio peligroso solo en un horno industrial o caldera identificada en la Regla 607 B de este reglamento.

b. Después que un mercader acepta el primer envío de combustible de desperdicio peligroso de otro mercader, debe proveerle al otro mercader una certificación escrita y firmada de que él ha notificado a la APA bajo la Sección 3010 de RCRA (Anejo C-8), con copia a la Junta, y que ha identificado sus actividades de combustible de desperdicio peligroso; y

6. Mantenimiento de Registros. Además de los requisitos aplicables de mantenimiento de registros de las Reglas 503 a 505 y las Partes VIII-I y VIII-II de este reglamento, el mercader debe retener y conservar una copia de cada certificación que reciba o envíe por tres (3) años a partir de la fecha de su última transacción de mercadeo del combustible de desperdicio peligroso con la persona que envía o recibe la certificación.

F. Normas aplicables a quemadores de combustible de desperdicio peligroso.

Los dueños y operadores de hornos industriales y calderas identificadas en el inciso B (2) de esta regla que queman combustible peligroso son "quemadores" y están sujetos a los siguientes requisitos:

1. Prohibiciones. Las prohibiciones bajo el inciso B (2) de esta regla;
2. Notificación. Los requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8) para actividades de combustible de desperdicio peligroso, con copia a la Junta. Aún cuando un quemador haya notificado previamente a la APA sobre sus actividades de manejo de desperdicio peligroso y haya obtenido un número de identificación de la APA, debe volver a notificar para identificar sus actividades de combustible de desperdicio peligroso.
3. Almacenaje.
 - a. Para la acumulación a corto plazo por generadores que queman su combustible de desperdicio peligroso en su facilidad, las disposiciones aplicables de la Regla 704 D de este reglamento.
 - b. Para facilidades existentes de almacenamiento, las disposiciones aplicables de las Reglas I-801 a I-818 y de la Parte IX-I de este reglamento; y
 - c. Para nuevas facilidades de almacenamiento, las disposiciones aplicables de las Reglas II-801 a II-812 y de la Parte IX-I de este reglamento;

4. Notificaciones requeridas. Antes de que un quemador acepte su primer envío de combustible de desperdicio peligroso de un mercader, debe proveerle al mercader una notificación escrita y firmada certificando que:

a. Ha notificado a la APA bajo la Sección 3010 de RCRA (Anejo C-8) (con copia a la Junta) y ha identificado sus actividades de quema de desperdicio como combustible; y

b. Quemará el combustible solo en una caldera u horno identificado en el inciso B (2) de esta regla.

5. Mantenimiento de registros. Además de los requisitos aplicables de mantenimiento de registros de las Partes VIII-I y VIII-II de este reglamento, un quemador debe retener una copia de cada certificación que envíe a un mercader por tres (3) años a partir de la fecha en que recibió por última vez combustible de desperdicio peligroso de ese mercader.

Regla 1105 Aceite Usado que es Quemado para el Recobro de Energía.

A. Aplicabilidad

1. Esta regla es aplicable al aceite usado que es quemado con el propósito de recobrar energía en cualquier caldera u horno industrial que no este reglamentado bajo las Reglas I-814 6 II-815 de este reglamento, excepto lo provisto en los incisos A (3) y A (5) de esta regla. Este aceite usado se denominará como

"combustible de aceite usado". El combustible de aceite usado incluye cualquier combustible producido del aceite usado mediante el procesamiento, mezclado u otro tratamiento.

2. "Aceite usado" significa cualquier aceite que ha sido refinado de aceite crudo, usado y, como resultado de dicho uso, esta contaminado por impurezas físicas o químicas.
3. Excepto lo que se provée en el inciso A (4) de esta regla, el aceite usado que es mezclado con desperdicio peligroso y quemado para el recobro de energía esta sujeto a reglamentación como combustible de desperdicio peligroso bajo la Regla 1104 de este reglamento. El aceite usado que contenga mas de 1,000 ppm de halógeno total se presume un desperdicio peligroso porque ha sido mezclado con desperdicio peligroso halógeno anotado en la Regla 607 de este reglamento. Las personas pueden refutar esta presunción demostrando que el aceite usado no contiene desperdicio peligroso (por ejemplo, demostrando que el aceite usado no contiene concentraciones significativas de constituyentes peligrosos halogenados anotados en el Anejo C-3 de este reglamento).
4. El aceite usado quemado para recobrar energía esta sujeto a reglamentación bajo esta regla, en vez de como combustible de desperdicio peligroso bajo la Regla 1104, si es un desperdicio peligroso solamente porque:

- a. Exhibe una característica de desperdicio peligroso identificada en la Regla 604 de este reglamento, siempre y cuando no este mezclado con un desperdicio peligroso; o
 - b. Contiene desperdicio peligroso generado solo por una persona sujeta a los requisitos especiales para generadores de pequeñas cantidades bajo la Regla 606 A de este reglamento.
5. Excepto lo provisto en el inciso A (3) de esta regla, el aceite usado quemado para recobrar energía, y cualquier combustible producido de aceite usado mediante procesamiento, mezclado u otro tratamiento, esta sujeto a reglamentación bajo esta regla, a menos que se demuestre que no excede ninguno de los niveles permitidos de los constituyentes y propiedades en la especificación mostrada en la siguiente tabla. El combustible de aceite usado que cumple con las especificaciones esta sujeto solo a los requisitos de análisis y mantenimiento de registros bajo los incisos D (2) (a) y (f) de esta regla. El combustible de aceite usado que excede cualquier nivel de especificación es denominado como "combustible de aceite usado que no cumple con las especificaciones."

Aceite Usado Excediendo Cualquier Nivel de Especificación
Esta Sujeto a Esta Regla Cuando es Quemado para Recobrar
Energía (a).

Constituyente/Propiedad	Nivel Permitido
Arsénico	5 ppm máximo
Cadmio	2 ppm máximo
Cromio	10 ppm máximo
Plomo	100 ppm máximo
Punto de Ignición	100 F mínimo
Halógenos Totales	4,000 ppm máximo (b)

(a) La especificación no aplica a combustible de aceite usado mezclado con otro desperdicio peligroso que no sea de un generador de pequeñas cantidades de desperdicio peligroso.

(b) Aceite usado conteniendo más de 1,000 ppm de halógenos totales se presume que es desperdicio peligroso bajo la presunción refutable provista bajo el inciso A (3) de esta regla. Dicho aceite usado esta sujeto a la Regla 1104 de este reglamento en vez de a esta regla cuando es quemado para recobrar energía a menos que la presunción de mezclarse pueda ser refutada satisfactoriamente.

B. Prohibiciones

1. Una persona puede mercadear el aceite usado que no cumple con las especificaciones para el recobro de energía solamente:

- a. A quemadores u otros mercaderes que hayan notificado a la APA y a la Junta de sus actividades de manejo de aceite usado señalando la localización y una descripción general de dichas actividades, y que tengan un número de identificación asignado por la APA; y
 - b. A quemadores que quemen el aceite usado en un horno industrial o caldera identificada en el inciso B (2) de esta regla.
2. El aceite usado que no cumple con las especificaciones puede ser quemado para el recobro de energía solamente en los siguientes equipos:
 - a. Hornos industriales identificados en la Regla 102 de este reglamento; o
 - b. Calderas, según definida en la Regla 102 de este reglamento, que son identificadas como sigue:
 - (1) Calderas industriales localizadas en una facilidad que utiliza un proceso manufacturero donde las substancias son transformadas en nuevos productos, incluyendo partes que componen los productos, por medio de procesos mecánicos o químicos;
 - (2) Calderas de Servicio utilizadas para producir energía eléctrica, vapor o aire caliente o frío u otros gases o fluidos para la venta; o

(3) Calentadores que utilizan aceite usado siempre y cuando:

- (a) El calentador queme sólo el aceite usado que el dueño u operador genere o el aceite usado recibido de aquellos que generan aceite usado como desperdicio doméstico de las operaciones de cambio de aceite realizadas por ellos mismos;
- (b) El calentador esta diseñado para tener una capacidad máxima de no más de 0.5 millones de BTU por hora y;
- (c) Los gases de combustión del calentador sean descargados al aire.

C. Normas aplicables a generadores de aceite usado que es quemado para el recobro de energía.

- 1. Excepto lo provisto en los incisos C (2) y C (3) de esta regla, los generadores de aceite usado no están sujetos a los requisitos de esta regla.
- 2. Los generadores que mercadean aceite usado directamente a un quemador están sujetos al inciso D de esta regla.
- 3. Los generadores que queman aceite usado están sujetos al inciso E de esta regla.

D. Normas aplicables a mercaderes que queman aceite usado para el recobro de energía.

1. Las personas que mercadean el combustible de aceite usado se denominan "mercaderes". Sin embargo, las siguientes personas no son mercaderes sujeto a esta regla:

a. Generadores de aceite usado y recogedores que transportan aceite usado recibido sólo de generadores, a menos que el generador o recogedor mercadee el aceite usado directamente a una persona que lo queme para el recobro de energía. Sin embargo, las personas que queman algún combustible de aceite usado para propósitos de procesamiento u otro tratamiento para producir combustible de aceite usado para mercadear se considera que están quemando incidentalmente para procesamiento. En este caso, los generadores y recogedores que mercadean a esos quemadores incidentales no son mercaderes sujetos a esta regla.

b. Personas que mercadean sólo combustible de aceite usado que cumple con las especificaciones del inciso A (5) de esta regla y que no son las primeras personas en reclamar el aceite cumplen con la especificación (por ejemplo, mercaderes que no reciben aceite usado de generadores o transportadores iniciales y mercaderes que ni reciben ni mercadean combustible de aceite usado que no cumple con las especificaciones).

2. Los mercaderes están sujetos a los siguientes requisitos;

- a. Análisis de combustible de aceite usado. El combustible de aceite usado esta sujeto a reglamentación bajo esta regla a menos que el mercader obtenga los análisis u otra información que documente que el combustible de aceite usado cumple con las especificaciones provistas bajo el inciso A (5) de esta regla.
- b. Prohibiciones: Las prohibiciones bajo el inciso B (1) de esta regla;
- c. Notificación: Notificar a la Junta señalando la localización y una descripción general de las actividades de manejo de aceite usado. Aunque un mercader haya notificado previamente a la APA (con copia a la Junta) de sus actividades de manejo de desperdicios peligrosos bajo la Sección 3010 de RCRA (Anejo C-8) y haya obtenido un número de identificación de la APA, debe volver a notificar para identificar sus actividades de manejo de aceite usado.
- d. Sistema de facturas: Cuando un mercader inicia un embarque de aceite usado que no cumple con las especificaciones, debe preparar y enviar a la facilidad que recibe el embarque una factura conteniendo la siguiente información:

- (1) Número de factura;
- (2) Su número de identificación asignado por la APA y el número de identificación asignado por la APA a la facilidad que recibe el embarque;
- (3) Los nombres y direcciones de las facilidades que envían y reciben el embarque;
- (4) La cantidad de aceite usado que no cumple con las especificaciones que va a ser enviado;
- (5) La fecha o fechas del envío o entrega; y
- (6) La siguiente declaración:
"Este aceite usado esta sujeto a reglamentación bajo la Parte XI del Reglamento para el Control de los Desperdicios Sólidos Peligrosos y No-Peligrosos, versión enmendada";

Nota: El aceite usado que cumple con la definición de líquido combustible (punto de ignición bajo 200° F pero igual o mayor de 100° F) o líquido inflamable (punto de ignición bajo 100° F) esta sujeto a la Reglamentación de Materiales Peligrosos del Departamento de Transportación en el 49 CFR Partes 100-177.

e. Notificaciones requeridas:

- (1) Antes de que un mercader inicie el primer envío de aceite usado, que no cumple con las especificaciones, a un quemador u otro mercader, debe obtener una notificación escrita y firmada del quemador o mercader certificando que:
 - (a) El quemador o mercader ha notificado a la Junta señalando la localización y una descripción general de sus actividades de manejo de aceite usado; y
 - (b) Si el receptor es un quemador, el quemador quemará el aceite usado, que no cumple con las especificaciones, solamente en un horno industrial o caldera identificada en el inciso B (2) de esta regla; y
- (2) Antes de que un mercader acepte el primer envío de aceite usado, que no cumple con las especificaciones, de otro mercader sujeto a los requisitos del inciso D de esta regla, debe proveer al mercader de una notificación escrita y firmada certificando que ha notificado a la Junta de sus actividades de manejo de aceite usado; y

f. Mantenimiento de Registros:

(1) Combustible de aceite usado que cumple con las especificaciones: Un mercader que reclame primero, bajo el inciso D (2) (a) de esta regla, que el combustible de aceite usado cumple con las especificaciones debe mantener copia de los análisis (u otra información utilizada para llegar a esa determinación) de aceite usado por tres (3) años. Esos mercaderes deben también registrar en un registro de operación y mantener por tres (3) años la siguiente información para cada embarque de combustible de aceite usado que cumple con las especificaciones. Dicho combustible de aceite usado no esta sujeto a reglamentación adicional a menos que sea mezclado posteriormente con desperdicio peligroso o a menos que sea mezclado con aceite usado para que no cumpla mas con las especificaciones.

(a) El nombre y dirección de la facilidad que recibe el embarque;

(b) La cantidad de combustible de aceite usado entregado;

(c) La fecha del envío o entrega;
y

(d) Una referencia al archivo de los análisis de aceite usado (u otra información utilizada para hacer la determinación de que el aceite cumple con las especificaciones) requerido bajo el inciso (2) (f) (1) de esta regla.

(2) Combustible de Aceite Usado que no cumple con las especificaciones. Un mercader que recibe o inicia una factura bajo los requisitos del inciso D de esta regla debe mantener una copia de cada factura por tres (3) años a partir de la fecha que la factura es recibida o preparada. Además, un mercader debe mantener una copia de cada notificación que reciba o envíe por tres (3) años a partir de la fecha en que por última vez realizó una transacción de mercadeo de combustible de aceite usado, que no cumple con las especificaciones, con la persona que envía o recibe la notificación sobre la certificación.

E. Normas aplicables a quemadores que queman aceite usado para el recobro de energía.

Dueños y operadores de facilidades que queman combustible de aceite usado son "quemadores" y están sujetos a los siguientes requisitos:

1. Prohibición: La prohibición bajo el inciso B (2) de esta regla;
2. Notificación: Los quemadores de combustible de aceite usado que no cumple con las especificaciones, deben notificar a la Junta señalando la localización y una descripción general de las actividades de manejo de aceite usado, excepto que los dueños y operadores de calentadores de área de aceite usado que queman combustible de aceite usado bajo las disposiciones del inciso B (2) (b) de esta regla, están exentos de estos requisitos de notificación. Aún cuando un quemador haya previamente notificado a la APA (con copia a la Junta) de sus actividades de manejo de desperdicios peligrosos bajo la Sección 3010 de RCRA (Anejo C-8) y haya obtenido un número de identificación, debe notificar nuevamente para identificar sus actividades de manejo de aceite usado.
3. Notificaciones requeridas: Antes de que un quemador acepte de un mercader el primer envío de combustible de aceite usado que no cumple con las especificaciones, debe proveer al mercader de una notificación escrita y firmada certificando que:
 - a. Ha notificado a la Junta señalando la localización y una descripción general de sus actividades de manejo de aceite usado; y

- b. Quemará el aceite usado en un horno industrial o caldera según identificada en el inciso B (2) de esta regla;
- 4. Análisis de combustible de aceite usado:
 - a. El combustible de aceite usado quemado por el generador esta sujeto a la reglamentación bajo esta regla a menos que el quemador obtenga un análisis (u otra información) que documente que el aceite usado cumple con las especificaciones provistas bajo el inciso A (5) de esta regla.
 - b. Quemadores que tratan combustible de aceite usado que no cumple con las especificaciones por medio de procesamiento, mezclado u otro tratamiento para que cumpla con las especificaciones provistas bajo el inciso A (5) de esta regla, deben obtener los análisis (u otra información) que documenten que el aceite usado cumple con las especificaciones.
- 5. Mantenimiento de registros: Un quemador que recibe una factura bajo los requisitos del inciso E de esta regla debe mantener una copia de cada factura por tres (3) años a partir de la fecha en que se recibe la factura. Los quemadores deben mantener también, por tres (3) años, copia de los análisis de combustible de aceite usado según requerido por el inciso E (4) de esta regla. Además, debe mantener una copia de cada notificación que envía a un mercader por un periodo de

tres (3) años a partir de la fecha del último recibo de aceite usado que no cumple con las especificaciones enviado por ese mercader.

Regla 1106 Materiales Reciclables Utilizados para el Recobro de Metales Preciosos.

A. Aplicabilidad y requisitos.

1. Esta regla aplica a los materiales reciclables que son reclamados para recobrar cantidades económicamente significativas de oro, plata, platino, paladio, iridio, osmio, rodio, rutenio o cualquier combinación de estos.
2. Las personas que generan, transportan o almacenan materiales reciclables que están regulados bajo esta regla están sujetas a los siguientes requisitos:
 - a. Requisitos de notificación bajo la Sección 3010 de RCRA (Anejo C-8) (con copia a la Junta);
 - b. La Regla 703 (para generadores) los incisos D, E y F de la Regla 706 (para transportadores) y la Regla 504 D (para personas que almacenan) de este reglamento.
3. Las personas que almacenan materiales reciclados que están regulados bajo esta regla deben mantener los siguientes registros para documentar que no están acumulando estos materiales especulativamente:

- a. Registros que muestran el volumen de estos materiales almacenados al principio del año calendario;
 - b. La cantidad de estos materiales generados o recibidos durante el año calendario; y
 - c. La cantidad de materiales que quedan al final del año calendario.
4. Los materiales reciclables que están regulados bajo esta regla y que son acumulados especulativamente estan sujetos a todas las disposiciones aplicables de las Reglas 503, 504, 505 y las Partes VII, VIII-I, VIII-II y IX-I de este reglamento.

Regla 1107 Baterías Agotadas, con Electrodos de Plomo, que Han Sido Reclamadas.

A. Aplicabilidad y requisitos.

1. Los requisitos de esta regla aplican a personas que reclaman baterías agotadas, con electrodos de plomo, que son materiales reciclables ("baterías agotadas"). Las personas que generan, transportan o recogen baterías agotadas pero no las reclaman no están sujetas a los requisitos bajo las Reglas 503, 504, 505, las Partes VII, VIII-I, VIII-II, IX-I y XI de este reglamento, ni tampoco estan sujetas a los requisitos de la Sección 3010 de RCRA (Anejo C-8).

2. Dueños u operadores de facilidades que almacenan baterías agotadas antes de ser reclamadas están sujetos a los siguientes requisitos:

- a. Requisitos de notificación bajo la Sección 3010 de RCRA (con copia a la Junta);
- b. Todos los requisitos aplicables de las Reglas II-801, II-802 (pero no la Regla II-802 C (Análisis de desperdicio)), II-803, II-804, II-805 (pero no las Reglas II-805 B ó II-805 C (que tratan sobre el uso del manifiesto y discrepancias del manifiesto)), y II-806 hasta la II-812 de este reglamento.

Esta Parte es equivalente al 40 CFR Parte 266.



-VIII-

40 CFR 270

REGLAMENTO PARA EL CONTROL DE
LOS DESPERDICIOS SOLIDOS PELIGROSOS
Y NO PELIGROSOS

PARTE IX - I



Se enmienda la Regla I-902 B (1) (a) para sustituir la frase "en el caso de municipalidades...." por lo siguiente:

"....en caso de municipalidades, agencias federales, estatales u otras por: el oficial ejecutivo principal u oficial de jerarquía electo. (Para propósitos de esta regla, un oficial ejecutivo principal u oficial de jerarquía electo incluye: (i) el director ejecutivo de la agencia, (ii) el oficial ejecutivo mas antiguo con responsabilidad sobre toda la operación de una unidad geográfica principal de la agencia)."

Esta regla es equivalente al 40 CFR Sección 270.11 (a) (3).

Se enmienda la Regla I-902 B (3) para que en lo sucesivo lea como sigue:

3. Cualquier persona que tiene una solicitud para un permiso para construir una facilidad nueva o modificada deberá hacer la siguiente certificación:

" Certifico bajo pena de ley que este documento y todos sus anejos fueron preparados bajo mi dirección o supervisión de acuerdo a un sistema designado para asegurar que personal propiamente cualificado recopilaron y evaluaron la información sometida. Basado en las indagaciones que he efectuado de la persona o personas que manejan el sistema, o aquellas personas directamente responsables de recopilar la información, esta es, en mi mejor conocimiento y creencia, verdadera, precisa

y completa. Estoy conciente que existen penalidades significativas por someter información falsa incluyendo la posibilidad de multa y cárcel por violaciones conocidas.

Esta regla es equivalente al 40 CFR Sección 270.11.

Se enmienda la Regla I-902 K (1) (a) para que en lo sucesivo lea como sigue:

Regla I-902 K (1) (a)

- (a) Generadores que acumulan desperdicios peligrosos en su facilidad por menos tiempo que aquel periodo provisto en la Regla 704 D de este reglamento.

Esta regla es equivalente al 40 CFR Sección 270.1 (c) (2) (i).

Se enmienda la Regla I-904 F (3) para que en lo sucesivo lea como sigue:

- 3. En el evento de un incumplimiento con el permiso, el solicitante debe tomar todas las medidas razonables para minimizar los escapes al ambiente, y deberá llevar a cabo estas medidas según sea razonable para prevenir impactos adversos significativos a la salud humana o al ambiente.

Esta regla es equivalente al 40 CFR Sección 270.30 (d).

Se enmienda la Regla I-912 B para que en lo sucesivo lea como sigue:

Regla I-912 B - Solicitudes de Permisos

1. Toda persona que se le requiera tener un permiso (incluyendo nuevos solicitantes y aquellos con permisos expirados) deben completar, firmar y someter una solicitud a la Junta como se describe en esta Regla I-912 B y en las Reglas I-914 hasta la I-917. Las personas generalmente autorizadas con status interino deben solicitar permiso cuando la Junta lo requiera. No se requieren solicitudes para permisos por regla (permit by rule) (Regla I-902 J). Los procedimientos para las solicitudes, emisiones y administración de permisos de emergencia se encuentran exclusivamente en la Regla I-911. Los procedimientos para la solicitud, emisión y administración de permisos de investigación, desarrollo y demostración se encuentran exclusivamente en la Regla I-903 L.
2. Cuando una facilidad o actividad es propiedad de una persona pero es operada por otra persona, es la obligación del operador obtener un permiso, excepto que el dueño también deberá firmar la solicitud de permiso.
3. La Junta no debe emitir un permiso antes de recibir una solicitud de permiso completa excepto en los casos de los permisos por regla o permisos de emergencia. Una solicitud de permiso esta completa cuando la Junta recibe el modelo de solicitud y cualquier información adicional que haya sido requerida y

sometida a satisfacción de la Junta. Una solicitud de permiso esta completa aunque el dueño u operador halla fallado en someter la información descrita en el inciso B (10) de esta regla.

4. Requisito de información. Todos los solicitantes de un permiso para manejar desperdicios peligrosos deben proveer a la Junta la información establecida en la Regla I-902 C y D y los requisitos aplicables de la Regla I-903 A-H, utilizando el modelo de solicitud provisto por la Junta.
5. Facilidades existente para el manejo de Desperdicios Peligrosos y las cualificaciones para status interino.
 - a. Los dueños u operadores de facilidades existentes para el manejo de desperdicios peligrosos o de facilidades para el manejo de desperdicios peligrosos en existencia para la fecha de efectividad de las enmiendas reglamentarias bajo las cuales la facilidad esta sujeta a los requisitos de permiso según RCRA y/o este reglamento, tienen que someter la Parte A de su solicitud de permiso no más tarde de:
 - (i) Seis meses después de la fecha de publicación de la reglamentación que primero les requiere cumplir con las normas establecidas en las Partes VIII-I u XI de este reglamento, o
 - (ii) Treinta días después de la fecha que por primera vez estan sujetos a las normas establecidas en las Partes VIII-I u XI de este reglamento, lo que ocurra primero.

(iii) Para generadores que generan más de 100 kg pero menos de 1,000 kg de desperdicios peligrosos en un mes calendario y que tratan, almacenan o disponen de esos desperdicios en su facilidad, para el 24 de marzo de 1987.

b. La Junta podrá extender la fecha para que los dueños u operadores de las clases específicas de facilidades existentes de desperdicios peligrosos sometan la Parte A de su solicitud, mediante un aviso público a esos efectos, si:

(i) Existe una sustancial confusión sobre si los dueños u operadores de esas facilidades tenían que someter una solicitud, y

(ii) Esta confusión es atribuible a ambigüedades de las Partes I, VI, VIII-I y XI.

c. La Junta podrá extender la fecha para someter la Parte de solicitud del dueño u operador de una facilidad existente de manejo de desperdicios peligrosos mediante una orden administrativa según los poderes conferidos por la Ley Número 9 del 18 de junio de 1970, según enmendada.

d. En cualquier momento la Junta podrá requerir al dueño y operador de una facilidad existente para el manejo de los desperdicios peligrosos que someta la Parte B de su solicitud de permiso. A todo dueño u operador se le puede permitir, al menos seis meses a partir de la fecha de solicitud, para someter la Parte B. Cualquier dueño u operador de una facilidad existente para el manejo de los desperdicios peligrosos puede

voluntariamente someter la Parte B de la solicitud en cualquier momento. No obstante lo anterior, cualquier dueño u operador de una facilidad existente para el manejo de los desperdicios peligrosos debe someter la Parte B de la solicitud de permiso de acuerdo con las fechas establecidas en la Regla I-917. Cualquier dueño u operador de una facilidad de disposición en el terreno, en existencia para la fecha de efectividad de las enmiendas reglamentarias que obligan a la facilidad a estar sujeta a los requisitos de tener un permiso para el manejo de los desperdicios peligrosos, tiene que someter la Parte B de la solicitud de acuerdo a las fechas establecidas en la Regla I-917 de este reglamento.

- e. El no cumplir con el requisito de someter la Parte B de su solicitud de permiso a tiempo, o el no suministrar toda la información requerida por la solicitud de Parte B, será motivo suficiente para dar por terminado el status interino de la facilidad según la Regla I-912.
6. Nuevas facilidades para el Manejo de los Desperdicios Peligrosos
- a. Excepto lo provisto en el inciso B (6) (c) de esta regla, ninguna persona debe de comenzar la construcción física de una facilidad para el Manejo de los Desperdicios Peligrosos sin haber sometido la Parte A y Parte B de la solicitud de permiso y sin haber recibido finalmente un permiso válido para el manejo de los desperdicios peligrosos.

- b. La solicitud de permiso para una nueva facilidad de manejo de desperdicios peligrosos (incluyendo Parte A y Parte B) debe ser sometida en cualquier momento después de la promulgación de los requisitos aplicables de la Parte VIII-II, para esa facilidad. Excepto lo provisto en el párrafo B (6) (c) de esta regla, las solicitudes serán sometidas por lo menos 180 días antes de la fecha en que se espera comenzar la construcción de la facilidad.
 - c. No obstante el inciso B (6) (a) de esta regla, una persona puede construir una facilidad para la incineración de bifenilos policlorinados conforme a un permiso bajo la Sección (6) (e) de la Ley Federal para el Control de la Substancias Tóxicas y cualquier persona que sea dueña u opere una facilidad de este tipo debe, en cualquier momento después de que la construcción u operación de esa facilidad haya comenzado, presentar una solicitud de permiso para el manejo de desperdicios peligrosos para incinerar desperdicios peligrosos autorizando a esa facilidad a incinerar desperdicios identificados o anotados bajo la Regla 604 de este reglamento.
7. Actualizar las solicitudes de Permiso
- a. Si el dueño u operador de una facilidad de manejo de desperdicios peligrosos ha sometido la parte A de la solicitud de permiso y aún no ha sometido la Parte B, el dueño u operador deberá someter una Parte A enmendada:

(i) No mas tarde de la fecha de efectividad de una nueva reglamentación en la que se enumeran o designan desperdicios peligrosos adicionales a los anotados o designados previamente en la reglamentación, si la facilidad esta tratando, almacenando o disponiendo de cualquier de estos nuevos desperdicios enumerados o designados; o

(ii) Según sea necesario para cumplir con los requisitos de la Regla I-916 para realizar cambios durante el status interino. La Parte A revisada será sometida a la Junta.

b. El dueño u operador de una facilidad que no cumpla con los requisitos para actualizar su permiso según se especifica en el párrafo B (7) (a) de esta regla, no recibirá status interino en lo relacionado con los desperdicios no incluidos en la Parte A de su solicitud.

8. Renovación de Permiso. Cualquier facilidad de manejo de desperdicios peligrosos con un permiso válido deberá someter una solicitud de renovación por lo menos 180 días antes de la fecha de expiración de dicho permiso a menos que la Junta le haya permitido solicitar el permiso en una fecha posterior. (La Junta no podrá autorizar que se sometan solicitudes mas allá de la fecha de expiración del permiso existente).

9. Mantenimiento de Registros. Los solicitantes mantendrán un registro de todos los datos utilizados para completar su solicitud de permiso y cualquier otra información suplementaria sometido bajo las reglas I-912 B (4), I-902 C y D y I-903 A - H, por un periodo no menos de tres años contados a partir de la fecha que fue firmada la solicitud.

10. Información sobre Exposición

a. Toda Parte B de la solicitud de permiso sometida por el dueño u operador de una facilidad que almacene, trate o disponga desperdicios peligrosos en un embalse superficial o en relleos debe estar acompañada de información, razonablemente asegurada por el dueño u operador, sobre el potencial de que personas sean expuestas a desperdicios peligrosos o constituyentes peligrosos a través de escapes relacionados con la unidad. Como mínimo, esta información debe incluir:

- (i) El potencial de escape que razonablemente se puede prever tanto de las operaciones normales como de accidentes en la unidad, incluyendo escapes asociados con la transportación de o hacia la unidad;
- (ii) Las diferentes formas en que se puede dar la exposición a humanos de desperdicios peligrosos o constituyentes que resulten de los escapes descritos en el inciso B (10) (a) (i) de esta regla; y
- (iii) La posible magnitud y naturaleza de la exposición humana resultante de esos escapes.

- b. Los dueños u operadores de rellenos o embalses superficiales, que hayan sometido la Parte B de la solicitud, deben someter la información de exposición requerida en el inciso B (10) (a) de esta regla.

Esta regla es equivalente al 40 CFR Sección 270.10.

Se enmienda la Regla I-902 B (1) (b) y (c) para que en lo sucesivo lea como sigue:

Regla I-902 B

- 1. b. Informes. Todos los informes requeridos por los permisos y cualquier otra información requerida por la Junta deberá ser firmada por la persona descrita en el párrafo B (1) (a) de esta regla o por un representante autorizado de esta persona. Una persona es un representante autorizado únicamente si:

- (i) La autorización es hecha por una persona descrita en el párrafo B (1) (a) de esta regla;
- (ii) La autorización especificará a un individuo o una posición con responsabilidad sobre la operación general de la facilidad o la actividad reglamentada como por ejemplo, un gerente de planta, operador de un pozo o un área de pozos, superintendente, o una posición de responsabilidad equivalente, (Por lo tanto, el representante autorizado puede ser un individuo en particular, o un individuo ocupando una posición de renombre); y

(iii) La autorización por escrito es sometida a la Junta.

c. Cambios de autorización. Si una autorización bajo el párrafo B (1) (b) de esta regla ya no es exacta porque un nuevo individuo o una nueva posición tiene la responsabilidad general de la facilidad, será necesario someter una nueva autorización cumpliendo los requisitos del párrafo B (1) (b) de esta regla antes o a la misma vez que el nuevo representante autorizado firme registros, solicitudes o informes.

Esta regla es equivalente al 40 CFR Sección 270.11 (b) y (c).

Se enmienda la Regla I-903 A (g) para que en lo sucesivo lea como sigue:

Regla I-903 A

(g) Una copia del plan de contingencia requerida por la Regla II-804 de este reglamento. Nota: Incluir, cuando sea aplicable, como parte del plan de contingencia, los requisitos específicos de las Reglas II-811 E y II-810 H.

Esta regla es equivalente al 40 CFR Sección 270.14 (b) (7).

Se enmienda la Regla I-903 C para añadir lo siguiente como párrafo (7):

Regla I-903 C

- (7) Cuando sea aplicable, una descripción de los sistemas de contención y detección para demostrar el cumplimiento con la Regla II-810 H incluyendo por lo menos lo siguiente:
 - (a) Los dibujos y una descripción de los parámetros básicos de diseño, dimensiones y materiales de construcción del sistema de contención.
 - (b) La capacidad del sistema de contención relativo a la capacidad de diseño de los tanques dentro del sistema.
 - (c) Una descripción del sistema para detectar escapes y derrames y como la precipitación y la escorrentía pueden ser prevenidas de entrar en el sistema de detección.

Este párrafo es equivalente al 40 CFR Sección 270.16 (g).

Se enmienda la Regla I-903 D para eliminar el párrafo (3). El actual párrafo (4) que lee como sigue pasará a ser el párrafo (3) y así sucesivamente:

Regla I-903 D

- (3) Una descripción de como cada embalse superficial, incluyendo el sistema de revestimiento y cubierta y otros anejos relativos al control de desbordamiento serán inspeccionados para cumplir con los requisitos

de la Regla II-811 D (1) y (2). Esta información debe ser incluida en el plan de inspección sometido bajo la Regla I-903 A (1) (e);

Este párrafo es equivalente al 40 CFR Sección 270.17 (c).

Se enmienda la Regla I-903 D para añadir lo siguiente como párrafo (9):

Regla I-903 D

(9) Un plan de manejo de desperdicio para los desperdicios peligrosos listados como F020, F021, F022, F023, F026 y F027 describiendo como el embalse superficial está o será diseñado, construido, operado o mantenido para que cumpla con los requisitos de la Regla II-811. Deben incluirse también los siguientes detalles según especificados en la Regla II-811:

- (a) El volumen y características físicas y químicas de los desperdicios, incluyendo su potencial de migración a través del terreno o de volatilizar o escapar hacia la atmósfera;
- (b) Las propiedades atenuadoras de los terrenos subyacentes y circundantes o de otros materiales;
- (c) Las propiedades movilizadoras de otros materiales co-dispuestos con estos desperdicios; y
- (d) La efectividad de técnicas adicionales de tratamiento, diseño o monitoría.

Este párrafo es equivalente al 40 CFR Sección 270.17 (1).

Se enmienda la Regla I-903 E (2) para que en lo sucesivo lea como sigue:

Regla I-903 E

- (2) Si se busca una excepción a las Reglas II-812 B y II-806 según lo dispuesto en las Reglas II-812 A (3) ó II-806 A (2), una explicación de como los requisitos de la Regla II-812 A (3) serán cumplidos o planos detallados y un informe de ingeniería describiendo como se cumplirán los requisitos de la Regla II-806 A (2);

Esta regla es equivalente al 40 CFR Sección 270.18 (b).

Se enmienda la Regla I-903 E para eliminar el párrafo (4), y el actual párrafo (5), que en lo sucesivo leerá como sigue, pasará a ser el párrafo (4) y así sucesivamente:

Regla I-903 E

- (4) Una descripción de como cada montículo de desperdicio, incluyendo el revestimiento y lo relacionado con los sistemas de control de escorrentías, serán inspeccionados de acuerdo con los requisitos de la Regla II-812 E (1) y (2). Esta información será incluida en el plan de inspección sometido bajo la Regla I-903 A (1) (e).

Este párrafo es equivalente al 40 CFR Sección 270.18 (d).

Se enmienda la Regla I-903 E para añadir lo siguiente como párrafo (9):

Regla I-903 E

(9) Un plan de manejo de desperdicio para los desperdicios peligrosos listados como F020, F021, F022, F023, F026 y F027" describiendo como un montículo de desperdicio que no ha sido encerrado (como se define en la Regla II-812 A (3)) está o estará diseñado, construido, operado y mantenido para cumplir con los requisitos de la Regla II-812 I. Deben de incluirse también los siguientes detalles como se especifica en la Regla II-812 I:

- (a) El volumen y las características físicas y químicas de los desperdicios a ser dispuesto en el montículo de desperdicio, incluyendo su potencial de migración a través del terreno o de volatilizar o escapar hacia la atmósfera;
- (b) Las propiedades atenuadoras de los terrenos subyacentes o circundantes o de otros materiales;
- (c) Las propiedades movilizadoras de otros materiales co-dispuestos con estos desperdicios; y
- (d) La efectividad de técnicas adicionales de tratamiento, diseño o monitoría.

Este párrafo es equivalente al 40 CFR Sección 270.18 (1).

Se enmienda la Regla I-903 G para añadir lo siguiente como párrafo (9):

Regla I-903 G

(9) Un plan de manejo de desperdicio para los desperdicios peligrosos listados como F020, F021, F022, F023, F026 y F027 describiendo cómo una facilidad de tratamiento en el terreno está o estará diseñada, construida, operada y mantenida para cumplir con los requisitos de la Regla II-813 K. Se deben de incluir también los siguientes detalles según se especifica en la Regla II-813 K:

- (a) El volumen y las características físicas y químicas de los desperdicios, incluyendo su potencial de migración a través del terreno o de volatilizar o escapar hacia la atmósfera;
- (b) Las propiedades atenuadoras de los terrenos subyacentes o circundantes o de otros materiales;
- (c) Las propiedades movilizadoras de otros materiales co-dispuestos con estos desperdicios; y
- (d) La efectividad de técnicas adicionales de tratamiento, diseño o monitoría.

Este párrafo es equivalente al 40 CFR Sección 270.20 (i).

Se enmienda la Regla I-903 H (8) para que en lo sucesivo lea como sigue:

Regla I-903 H

- (8) Si desperdicios a granel o desperdicios líquidos que no se encuentran en receptáculos o desperdicios que contengan líquidos libres han sido colocados en el relleno antes del 8 de mayo de 1985, una explicación de cómo se cumplirá con los requisitos de la Regla II-814 I (1);

Este párrafo es equivalente al 40 CFR Sección 270.21 (h).

Se enmienda la Regla I-903 H para añadir lo siguiente como párrafo (10):

Regla I-903 H

- (10) Una plan de manejo de desperdicios para los desperdicios peligrosos listados como F020, F021, F022, F023, F026 y F027 describiendo como un relleno está o estará diseñado construido, operado y mantenido para cumplir con los requisitos de la Regla II-814 L. Se deben de incluir también los siguientes detalles según se especifica en la Regla II-814 L:

- (a) El volumen y las características físicas y químicas de los desperdicios, incluyendo su potencial de migración a través del terreno o de volatilizar o escapar hacia la atmósfera;
- (b) Las propiedades atenuadoras de los terrenos subyacentes o circundantes o de otros materiales;

- (c) Las propiedades movilizadoras de otros materiales co-dispuestos con estos desperdicios; y
- (d) La efectividad de técnicas adicionales de tratamiento, diseño o monitoría.

Este párrafo es equivalente al 40 CFR Sección 270.21 (j).

Se enmienda la Regla I-904 F (1) para que en lo sucesivo lea como sigue:

Regla I-904 F

- (1) El poseedor del permiso debe retener registros de toda la información de monitoría, incluyendo todos los registros de calibración y mantenimiento y todas las tablas de registro originales para la instrumentación continua de monitoría, copias de todos los informes requeridos por este permiso, la certificación requerida por la Regla II-805 D (2) de este reglamento y registros de todos los datos utilizados para completar la solicitud para este permiso, por un periodo de tiempo de por lo menos 3 años a partir de la fecha de la muestra, medida, informe, certificación o solicitud. Este periodo puede ser extendido por la Junta en cualquier momento. El poseedor del permiso debe mantener registros de todos los pozos de monitoría de agua subterránea y las elevaciones del nivel freático asociado con estos pozos, durante la vida útil de la facilidad, y para facilidades de disposición durante el periodo de cierre posterior.

Esta regla es equivalente al 40 CFR Sección 270.30 (j) (2).

Se enmienda la Regla I-902 F (10) para que en lo sucesivo lea como sigue:

Regla I-902 F (10)

, (a) Todo permiso bajo este reglamento deberá incluir condiciones de permiso necesarias para lograr el cumplimiento con la ley y la reglamentación, incluyendo cada requisito aplicable bajo las Partes VIII-II y XI. Para satisfacer estos requisitos, la junta podrá incorporar los requisitos aplicables de las Partes VIII-II y XI directamente a los permisos o establecer otras condiciones de permiso basadas en estas partes.

(b) Cada permiso emitido bajo este reglamento contendrá términos y condiciones según la Junta estime necesario para proteger la salud humana y el ambiente.

Esta regla es equivalente al 40 CFR Sección 270.32 (b).

Se enmienda la Regla I-912 D (9) (a) para añadir lo siguiente como párrafo (6):

Regla I-912 D (9) (a)

6. No obstante cualquiera otro requisito de esta regla, cuando un permiso para una facilidad de disposición en el terreno es revisado por la Junta bajo la Regla I-912 D (12) la Junta puede modificar el permiso como

sea necesario para asegurarse que la facilidad continua cumpliendo con todos los requisitos aplicables de este reglamento.

Este párrafo es equivalente al 40 CFR Sección 270.41 (a) (6).

Se enmienda la Regla I-912 D para añadir lo siguiente como párrafo (12):

Regla I-912 D

12. Cada permiso para una facilidad de disposición en el terreno debe ser revisado por la Junta cinco (5) años después de la fecha que se expidió o re-expidió el permiso y debe ser modificado como sea necesario según lo provisto en la Regla I-912 D.

Este párrafo es equivalente al 40 CFR Sección 270.50 (d).

Se enmienda la Regla I-902 J (2) (d) para que en lo sucesivo lea como sigue:

Regla I-912 J (2)

d. Cumple con las siguientes reglas:

- (i) Regla II-802 A, Número de Identificación;
- (ii) Regla II-805 B, Uso del sistema de manifiesto
- (iii) Regla II-805 C, Discrepancias en el manifiesto
- (iv) Regla II-805 D, Registro de Operación

- (v) Regla II-805 F, Informe Bienal
- (vi) Regla II-805 G, Informe de desperdicios no manifestados
- (vii) Regla II806 L para permisos NPDES emitidas después del 8 de noviembre de 1984.

Esta regla es equivalente al 40 CFR Sección 270.60 (c) (3).

Se enmienda la Regla I-904 para añadir lo siguiente como inciso L. El actual inciso L pasará a ser el inciso M.

Regla I-904 L. Permisos de Investigación, Desarrollo y Demostración

1. La Junta puede otorgar un permiso de investigación, desarrollo y demostración a cualquier facilidad de tratamiento de desperdicios peligrosos que proponga utilizar una tecnología o proceso innovativo y experimental de tratamiento de desperdicios peligrosos para cuya actividad no se ha promulgado requisitos de permiso bajo las Partes VIII-II u XI. Este permiso debe incluir aquellos términos y condiciones que aseguren la protección de la salud humana y el ambiente. Estos permisos:

- a. Debe proveer especificaciones para la construcción de esa facilidad, según necesario, y para la operación de la facilidad por un periodo no mayor de un (1) año, a menos que haya sido renovado como se especifica en el párrafo (L (4)) de esta regla, y

- b. Debe proveer especificaciones para que la facilidad acepte y trate solo aquellos tipos y cantidades de desperdicios peligrosos que la Junta estime necesario para propósitos de determinar la eficacia y capacidad de ejecución de la tecnología o procesos y los efectos de esa tecnología o proceso en la salud humana y el ambiente, y
 - c. Debe incluir aquellos requisitos que la Junta estime necesarios para proteger la salud humana y el ambiente (incluyendo, pero no limitado a, monitoría, operación, responsabilidad financiera, cierre y acción remediativa), y aquellos con el experimento y el proveer información a la Junta con respecto a la operación de la facilidad.
2. Con el propósito de facilitar la revisión y la otorgación de permiso bajo esta Regla I-904 L, la Junta puede, consistentemente con la protección de la salud humana y el ambiente, modificar o dispensarlo de una solicitud de permiso y los requisitos de emisión de un permiso establecido en la Parte IX-I de este reglamento, excepto que aquí no habrá ninguna modificación o dispensa de la reglamentación relacionada con la responsabilidad financiera (incluyendo el seguro) o los procedimientos relacionados con la participación pública.
3. La Junta puede ordenar un cese inmediato de todas las operaciones de la facilidad en cualquier momento en que determine que el mismo es necesario para proteger la salud humana y el ambiente.

4. Todo permiso emitido bajo esta regla I-904 L puede ser renovado no más de tres veces. Cada renovación será por un periodo de no mas de un (1) año.

Esta regla es equivalente al 40 CFR Sección 270.65.

Se enmienda la Regla I-914 A para que en lo sucesivo lea como sigue:

Regla I-914 A

- A. Cualquier persona que es dueña u opera una facilidad existente para el manejo de desperdicios peligrosos o una facilidad en existencia para la fecha de efectividad de las enmiendas reglamentarias bajo la ley que obliga a la facilidad a estar sujeta a los requisitos de tener un permiso tendrá status interino y será tratada como si se le hubiera emitido un permiso, hasta el punto que él o ella haya:

1. Cumplido con los requisitos de la Sección 3010 (a) de RCRA (Anejo C-8) relacionados con la notificación de actividad de desperdicios peligrosos.

(COMENTARIO: Algunas facilidades exitentes no necesitan notificar bajo la Sección 3010 (a) de RCRA (Anejo C-8). Estas facilidades pueden cualificar para status interino si cumplen con el inciso A (2) de esta regla.)

2. Cumplido con los requisitos de la Regla I-912 B relacionada con someter la Parte A de la solicitud de permiso;

Esta regla es equivalente al 40 CFR Sección 270.70 (a).

Se enmienda la Regla I-914 para añadir lo siguiente como inciso C:

Regla I-914 C

- C. El inciso A de esta regla no aplica a aquellas facilidades que se le haya denegado previamente un permiso o que se le haya terminado previamente la autorización para operar la facilidad.

Este inciso es equivalente al 40 CFR Sección 270.70 (c).

Se enmienda la Regla I-917 para añadir lo siguiente como los incisos C, D, E y F:

Regla I-917 C

- C. Para dueños u operadores de cada facilidad de disposición en el terreno que se le haya otorgado un status interino previo al 8 de noviembre de 1984, para el 8 de noviembre de 1985, a menos que:
 - 1. El dueño u operador someta la Parte B de la solicitud de permiso para esa facilidad antes de esa fecha; y
 - 2. El dueño u operador certifique que esa facilidad esta en cumplimiento con todos los requisitos aplicables de monitoría de agua subterránea y responsabilidad financiera.

Regla I-917 D

D. Para dueños u operadores de cada facilidad de disposición en el terreno que este en existencia para la fecha de efectividad en que enmiendas reglamentarias bajo la ley, hacen que la facilidad este sujeta al requisito de tener un permiso y a la cual se le ha otorgado un status interino, doce (12) meses después de la fecha donde la facilidad por primera vez esta sujeta a ese requisito de permiso, a menos que el dueño u operador de esa facilidad:

1. Someta la Parte B de la solicitud de permiso para esa facilidad antes de los 12 meses después de la fecha en la cual la facilidad por primera vez esta sujeta a este requisito de permiso; y
2. Certifique que esa facilidad esta en cumplimiento con todos los requisitos aplicables de monitoria de agua subterránea y responsabilidad financiera.

Regla I-917 E

E. Para dueños u operadores de cada facilidad de incineración para el 8 de noviembre de 1989, a menos que el dueño u operador de la facilidad someta la Parte B de la solicitud de permiso para una facilidad de incineración para el 8 de noviembre de 1986.

Regla I-917 F

F. Para dueños u operadores de cualquier facilidad (que no sea de disposición en el terreno o de incineración) para el 8 de noviembre de 1992, a menos que el dueño u operador de la facilidad someta la Parte B de la solicitud de permiso para la facilidad para el 8 de noviembre de 1988.

Estos incisos son equivalentes al 40 CFR Sección 270.73 (c), (d), (e) y (f).

IX

DISPONIBILIDAD DE DOCUMENTOS



X

CARGOS POR PERMISO



PARTE X - CARGOS POR PERMISOS

REGLA 1001 - CARGOS POR RERMISOS

A. Aplicabilidad

Esta regla requiere que se paguen cargos por solicitudes, permisos y renovaciones para:

1. Radicar una solicitud para cualquier de los siguientes:
 - a. Planes de cumplimiento,
 - b. Permiso para construcción,
 - c. Permiso para operación,
 - d. Permiso temporero de operación,
 - e. Modificación de condiciones de permisos,
 - f. Dispensas, o
 - g. Modificación o revisión de un permiso o plan de cumplimiento.
2. Para obtener cualquier de los siguientes:
 - a. Permiso para Construcción
 - b. Permiso para Operación, o
 - c. Modificación o revisión de permisos o plan de cumplimiento;
3. Transferencia de propiedad o cambio de ubicación de la facilidad respecto a:
 - a. Permiso de construcción,
 - b. Permiso de Operación, o
 - c. Dispensa; y
4. Renovación de permisos de operación:

B. Cargos por Radicación:

1. Todo solicitante que radique una solicitud de permiso para aprobación, o modificación deberá pagar un cargo de 25.00 por la radicación.
2. Si una solicitud de permiso, una aprobación o modificación de permiso es cancelada o denegada y esa denegación es final, el cargo de radicación requerido aquí no será devuelto.

C. Cargos por Permisos:

1. El solicitante de un permiso de construcción de cualquier facilidad de desperdicio sólido no peligroso o de desperdicio sólido peligroso deberá, en adición al cargo de radicación, pagar cargos por el permiso establecido en la Sección E.
2. En caso de una facilidad nueva de desperdicio sólido no peligroso propuesta, la cantidad determinada de la Sección E se multiplicará por 1.5 para cubrir tanto la aprobación de construcción y el permiso para operar.

3. En el caso de una facilidad nueva de desperdicio sólido peligroso propuesta, la cantidad , determinada de la Sección E se multiplicará por 1.5 para cubrir tanto la aprobación de construcción y el permiso para operar.
4. Si más de un listado de cargos es aplicable a una solicitud de permiso o aprobación, el listado que resulte en los cargos más altos será la aplicable.
5. Los cargos por permisos aquí requeridos serán depositados junto a los cargos de radicación, excepto según dispuesto en la Sección D.
6. Si una solicitud para un permiso o aprobación es cancelada o es denegada, y esta denegación es final, los cargos requeridos por este permiso no serán devueltos por la Junta.

D. Cargos por Renovación:

1. Todos los permisos de operación serán renovables a su fecha de expiración. Sesenta (60) días antes de esa fecha, y junto con la solicitud de renovación del permiso para operar, según requerida en la Sección 903(J), el poseedor del permiso pagará los cargos de renovación.

2. Los cargos de renovación para un permiso para operar serán el cincuenta por ciento (50%) de la cantidad señalada en los listados indicados en la Sección E, excepto para facilidades de desperdicios peligrosos para los cuales los cargos de renovación serán de 65% de la cantidad señalada en los listados indicados en la Sección E.
3. Si la solicitud de renovación no es radicada dentro de los sesenta (60) días provistos por la Sección 903(J), los cargos serán aumentados en un cincuenta por ciento (50%) por día de la cantidad determinada bajo el Párrafo 2.

E. Listado para Cargos por Permisos y Cargos por Renovación.

Los siguientes listados establecen los cargos por permisos para todas las facilidades de desperdicios sólidos peligrosos y no peligrosos.

Listado I: Facilidades de Almacenamiento, Tratamiento o Disposición en el Terreno.

Cualquier relleno, tratamiento en el terreno, y montículo de desperdicios ("waste piles") será gravada con un cargo por permiso basado en el total de cuerdas de la facilidad y la clase de desperdicio recibido, de acuerdo con el listado siguiente:

PARTE X - REGLA 1001

<u>Tamaño del sitio (cuerdas)</u>	<u>Cargos por Permisos</u>	
	<u>Desperdicio</u>	<u>Desperdicio</u>
	<u>Sólido No- Peligroso</u>	<u>Sólido Peligroso</u>
Hasta 20 (inclusive)	\$ 75.00	\$300.00
De 20 a 60	150.00	600.00
De 60 a 100	225.00	750.00
De 100 a 200	300.00	900.00
Por cada 200 o fracción	300.00	450.00

Listado II: Tanques de almacenamiento y tratamiento y embalses superficiales.

Los tanques de almacenamiento y embalses superficiales serán gravados con un cargo por permiso basado en su capacidad de galones, o su equivalente en pies cúbicos, y el tipo de desperdicio recibido.

<u>Capacidad (galones)</u>	<u>Cargo por Permisos</u>	
	<u>Desperdicio</u>	<u>Desperdicio</u>
	<u>Sólido No Peligroso</u>	<u>Sólido Peligroso</u>
hasta 4,000 galones	\$ 75.00	\$ 300.00
4,001 hasta 10,000	75.00	450.00
10,001 hasta 40,000 gals.	150.00	600.00
40,001 hasta 100,000 gals.	225.00	750.00
100,001 hasta 400,000 gals.	300.00	900.00
400,001 hasta 1,000,000 gals.	300.00	1,150.00
1,000,001 hasta 1,500,000 gals.	450.00	1,200.00
1,500,001 hasta 2,000,000 gals.	600.00	1,500.00
500,000 adicional o fracción	300.00	300.00

Listado III: Facilidades de Procesamiento y Tratamiento.

Basado en el tipo de facilidad y tipo de desperdicio, los siguientes cargos por permisos se gravarán a incineradores y a plantas de tratamiento termal (ej., plantas usadas primordialmente para disponer o tratar desperdicio combustible que consuma totalmente los materiales alimentados dejando solo cenizas o residuos); compactadores y trituradores; facilidades de tratamiento no termal (ej., tratamiento biológico, físico, o químico).

<u>Tipo de Facilidad</u>	<u>Cargos por Permisos</u>	
	<u>Desperdicio Sólido No-Peligroso</u>	<u>Desperdicio Sólido Peligroso</u>
1. Doméstico	\$ 75.00	\$300.00
2. Planta Central	300.00	750.00

Listado IV: Servicios de Recolección y Tratamiento

Los servicios para desperdicios sólidos peligrosos y no peligrosos serán gravados con un cargo por permiso como sigue:

<u>Tipo de Servicio</u>	<u>Cargo por Permiso</u>
Servicio de Recolección (desperdicio sólido no peligroso)	\$300.00
Servicio de Tratamiento (desperdicio sólido peligroso)	750.00

Listado V: Misceláneos

Cualquier facilidad de tratamiento, almacenamiento o disposición de desperdicio sólido peligroso o no peligroso que no esté incluido en los listados precedentes será gravado por un cargo de permiso de \$750.00.

F. Excepciones a los Cargos de Permisos.

A pesar de las disposiciones de la Sección E de esta regla, se gravará un cargo de setenta y cinco (75.00) dólares a los permisos para las siguientes actividades o servicios:

1. Cada permiso para estación de trasbordo,
2. Cada permiso para una actividad generante de desperdicios sólidos, y
3. Cada permiso para solar de reclamación.

G. Exclusiones Específicas.

Las siguientes personas estarán excluidas de esta Parte del reglamento:

1. Generadores que acumulan desperdicios sólidos peligrosos en su-localización por menos de noventa (90) días según provisto en la Sección 704(D).
2. Agricultores que disponen de los desperdicios peligrosos de su uso según provisto en la Sección 705(C).
3. Generadores de pequeñas cantidades según se dispone en la Sección 606(A).

H. Cargos por Transferencias de Propiedad o Cambio de Ubicación.

Cuando una solicitud para un permiso ha sido radicada porque la facilidad ha sido mudada a una nueva localización, o porque la propiedad ha sido transferida de una persona a otra y se ha otorgado previamente un permiso para esa facilidad y no han hecho alteraciones o adiciones, el solicitante pagará el cargo provisto en la Sección B y el cargo de permiso será equivalente al cincuenta por ciento (50%) del cargo de permiso correspondiente, según establecido en la Sección E de esta regla.

I. Duplicados de Permisos.

Toda solicitud de duplicado de permiso deberá ser hecho por escrito por el poseedor del permiso si dicho documento de permisos ha sido destruido, perdido o desfigurado. Un cargo de \$30.00 será cargado por expedir un duplicado de permiso.

J. Cargos por Revisión.

Por la solicitud para la revisión de un permiso para construir, de un plan de cumplimiento, o de un permiso para operar, el solicitante deberá pagar una octava parte (1/8) de los cargos provistos en la Sección C.

REGLA 1002 - CARGOS POR PRUEBAS

A. Autoridad para Conducir Pruebas.

La Junta podrá, cuando lo crea necesario, llevar a cabo pruebas de funcionamiento de una facilidad de desperdicios sólidos peligroso o no peligrosos para determinar el grado y cantidad de contaminantes que se están descargando al ambiente, aire, agua o al terreno; el grado de cumplimiento con las condiciones del permiso, o cumplimiento con este reglamento.

B. Procedimiento para las Pruebas.

En tal caso, la Junta notificará al dueño u operador de la facilidad de desperdicio sólido peligrosos de sus intenciones, y solicitará aquellos equipos o accesorios necesarios para llevar a cabo las pruebas.

C. Gastos por Pruebas.

El dueño u operador de la facilidad de desperdicio sólido peligroso o no peligroso deberá pagar los cargos por la prueba de funcionamiento.

D. Procedimientos para el Pago de los Gastos por Pruebas.

Después de completar las pruebas, el dueño u operador de una facilidad de desperdicio sólido peligroso o no peligroso será notificado por escrito, por la Junta, de los cargos o gastos por las pruebas dentro de treinta (30) días de dicha notificación resultará en la cancelación de cualquier solicitud o permiso para operar la facilidad.

E. Copias de los Resultados de las Pruebas.

Al pagar los cargos o gastos incurridos al conducir las pruebas de funcionamiento, el dueño u operador recibirá una (1) copia del informe de las pruebas de funcionamiento.



XI

ANEJOS

34 97
August 21, 1987 9:05 AM

ANEJO C-1
Appendix II
EP Toxicity Test Procedures

area is smaller or the particle size larger than specified above, the solid material shall be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.

4. The solid material obtained in Step 3 shall be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continuously brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the operator shall begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution shall be decreased to 5.0 ± 0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution shall be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid shall be added to bring the pH down to 5.0 ± 0.2 . However, in no event shall the aggregate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture shall be agitated for 24 hours and maintained at 20°-40°C (68°-104°F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45-A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjunction with a metering pump and reservoir of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter shall be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution shall be checked and, if necessary, 0.5N acetic acid shall be manually added to the extractor until the pH reaches 5.0 ± 0.2 . The pH of the solution shall be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure shall be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH shall be adjusted to 5.0 ± 0.2 and the extraction continued for an additional four hours, during which the pH shall be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water shall be added to the extractor in an amount determined by the following equation:

$$V = (20 \times W) - 16(W) - A$$

V = ml deionized water to be added

W = weight in grams of solid charged to extractor

A = ml of 0.5N acetic acid added during extraction

7. The material in the extractor shall be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 shall be combined. This combined liquid or the waste itself if it has less than 4 percent solids, as noted in step 2) is the extract and shall be analyzed for the presence of any of the contaminants specified in Table I of § 261.24 using the Analytical Procedures designated below.

Separation Procedure

Equipment: A filter holder, designed for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm² (75 psi) hydrostatic pressure to the solution being filtered, shall be used. For mixtures containing nonabsorptive solids, where separation can be effected without imposing a 5.3 kg/cm² pressure differential, vacuum filters employing a 0.45 micrometers filter media can be used. (For further guidance on filtration equipment or procedures see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" incorporated by reference, see § 260.11). Procedure:

(i) Following manufacturer's directions, the filter unit shall be assembled with a filter bed consisting of a 0.45 micrometer filter membrane. For difficult or slow to filter mixtures a prefilter bed consisting of the following prefilters in increasing pore size (0.65 micrometer membrane, fine glass fiber prefilter, and coarse glass fiber prefilter) can be used.

(ii) The waste shall be poured into the filtration unit.

(iii) The reservoir shall be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter shall be immediately lowered to 10-15 psig. Filtration shall be continued until liquid flow ceases.

(iv) The pressure shall be increased stepwise in 10 psi increments to 75 psig and filtration continued until flow ceases or the pressurizing gas begins to exit from the filtrate outlet.

(v) The filter unit shall be depressurized, the solid material removed and weighed and then transferred to the extraction apparatus, or, in the case of final filtration prior to analysis, discarded. Do not allow the material retained on the filter pad to dry prior to weighing.

(vi) The liquid phase shall be stored at 4°C for subsequent use in Step 8.

*This procedure is intended to result in separation of the "free" liquid portion of the waste from any solid matter having a particle size >0.45 µm. If the sample will not filter, various other separation techniques can be used to aid in the filtration. As described above, pressure filtration is employed to speed up the filtration process. This does not alter the nature of the separation. If liquid does not separate during filtration, the waste can be centrifuged. If separation occurs during centrifugation, the liquid portion (centrifugate) is filtered through the 0.45 µm filter prior to becoming mixed with the liquid portion of the waste obtained from the initial filtration. Any material that will not pass through the filter after centrifugation is considered a solid and is extracted.

APPENDIX II—EP TOXICITY TEST PROCEDURES

A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size 100 grams) shall be obtained using the methods specified in Appendix I or any other method capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).]

2. The sample shall be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue^a obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator shall treat the liquid phase as the extract and proceed immediately to Step 8.

3. The solid material obtained from the Separation Procedure shall be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm² or passes through a 9.5 mm (0.375 inch) standard sieve, the operator shall proceed to Step 4. If the surface

^aThese methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 800/2-80-018, January 1980.

^bThe percent solids is determined by drying the filter pad at 80°C until it reaches constant weight and then calculating the percent solids using the following equation:

$$\text{Percent solids} = \frac{(\text{weight of pad} + \text{solid}) - (\text{tare weight of pad})}{\text{initial weight of sample}} \times 100$$

B. Structural Integrity Procedure

Equipment: A Structural Integrity Tester having a 3.18 cm (1.25 in.) diameter hammer weighing 0.33 kg (0.73 lbs.) and having a free fall of 15.24 cm (6 in.) shall be used. This device is available from Associated Design and Manufacturing Company, Alexandria, VA 22314, as Part No. 125, or it may be fabricated to meet the specifications shown in Figure 1.

Procedure

1. The sample holder shall be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion

shall be cut from the block having the dimensions of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder. For a fixated waste, samples may be cast in the form of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder for purposes of conducting this test. In such cases, the waste may be allowed to cure for 30 days prior to further testing.

2. The sample holder shall be placed into the Structural Integrity Tester, then the hammer shall be raised to its maximum height and dropped. This shall be repeated fifteen times.

3. The material shall be removed from the sample holder, weighed and transferred to the extraction apparatus for extraction.

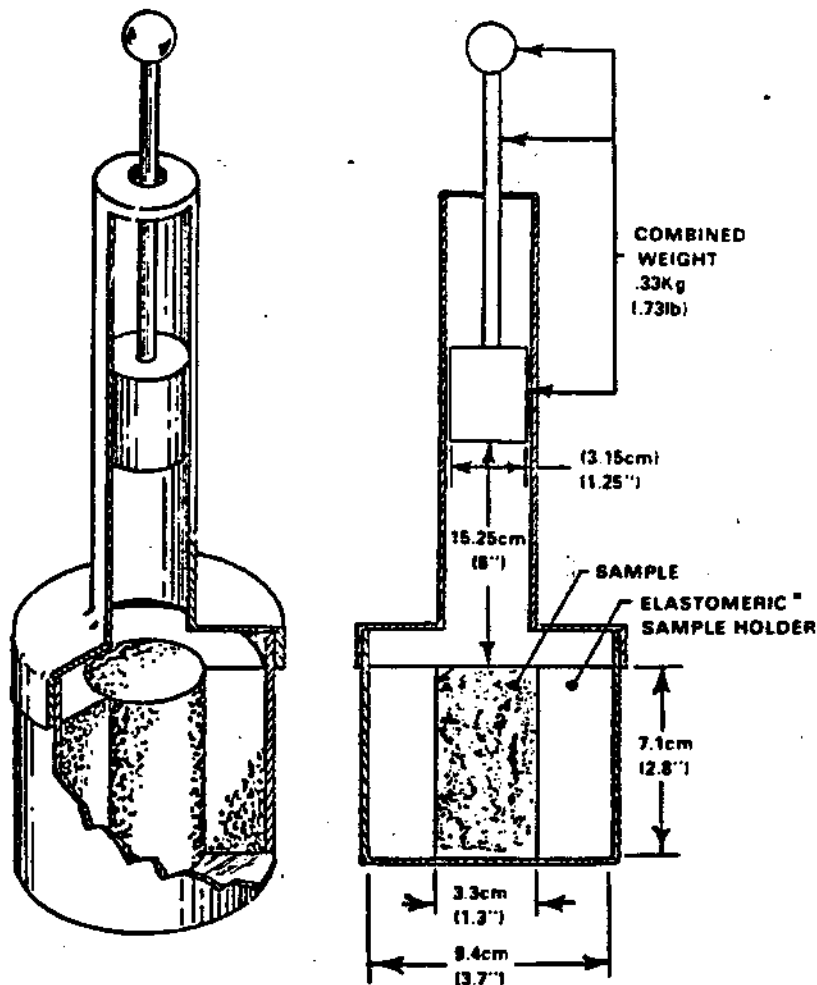
Analytical Procedures for Analyzing Extracted Contaminants

The test methods for analyzing the extract are as follows:

1. For arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, toxaphene, 2,4-D [2,4-dichlorophenoxyacetic acid] or 2,4,5-TP [2,4,5-trichlorophenoxypropionic acid]; "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see § 260.11).

2. [Reserved]

For all analyses, the methods of standard addition shall be used for quantification of species concentration.



*ELASTOMERIC SAMPLE HOLDER FABRICATED OF MATERIAL FIRM ENOUGH TO SUPPORT THE SAMPLE

Figure 1
COMPACTION TESTER

ANEJO C-2
Appendix III
Chemical Analysis Test Methods

APPENDIX III—CHEMICAL ANALYSIS TEST METHODS

Tables 1, 2, and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," (incorporated by reference, see § 260.11) which shall be used to determine whether a sample contains a given Appendix VII or VIII toxic constituent.

Table 1 identifies each Appendix VII or VIII organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.

Prior to final sampling and analysis method selection the analyst should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

TABLE 1.—ANALYSIS METHODS FOR ORGANIC
CHEMICALS CONTAINED IN SW-846

[Amended by 50 FR 1999, January 14, 1985; revised by 50 FR 42942, October 23, 1985; amended by 51 FR 5330, February 13, 1986; 51 FR 6541, February 25, 1986]

Compound	Method No.
Acetonitrile	8030, 8240
Acrolein	8030, 8240
Acrylamide	8015, 8240
Acrylonitrile	8030, 8240
2-Amino-4-methylbenzene (o-Toluidine)	8250
4-Amino-4-methylbenzene- (p-Toluidine)	8250
Aniline	8250
Benzene	8020, 8024
Benz(a)anthracene	8100, 8250
Benz(a)pyrene	8100, 8250
Benzotrichloride	8120, 8250
Benzyl chloride	8120, 8250
Benzobifluoranthene	8100, 8250
Bis(2-chloroethoxy)methane	8010, 8240
Bis(2-chloroethyl)ether	8010, 8240
Bis(2-chloroisopropyl)ether	8010, 8240
Carbon disulfide	8015, 8240
Carbon tetrachloride	8010, 8240
Chlordane	8080, 8250
Chlorinated dibenzodioxins (Removed)	
Chlorinated biphenyls	8010, 8250
Chlorinated dibenzo-p-dioxins	8280
Chlorinated dibenzofurans	8010, 8280
Chloroacetaldehyde	8012, 8240
Chlorobenzene	8020, 8240
Chloroform	8010, 8240
Chloromethane	8010, 8240
2-Chlorophenol	8040, 8250
Chrysene	8100, 8250
Cresols	8100, 8250
Cresol(s)	8040, 8250
Crotylic Acid(s)	8040, 8250
Dichlorobenzene(s)	8010, 8120, 8250
Dichloroethane(s)	8010, 8240
Dichloromethane	8010, 8240
Dichlorophenoxyacetic acid	8150, 8250
Dichloropropanol	8120, 8250
2,4-Dimethylphenol	8040, 8250
Dinitrobenzene	8090, 8250
4,6-Dinitro-o-cresol	8040, 8250
2,4-Dinitrotoluene	8090, 8250
2,6-Dinitrotoluene	8080 or 8250

Table 1.—Analysis Methods for Organic
Chemicals Contained in
SW-846—Continued

Compound	Method No.
Endrin	8080, 8250
2-Ethoxyethanol	8030, 8240
Emolins	8015, 8240
Ethylene dibromide	8010, 8240
Formaldehyde	8015, 8240
Formic acid	8250
Heptachlor	8080, 8250
Hexachlorobenzene	8120, 8250
Hexachlorobutadiene	8120, 8250
Hexachloroethane	8010, 8240
Hexachlorocyclopentadiene	8120, 8250
Lindane	8080, 8250
Maleic anhydride	8250
Methanol	8010, 8240
Methoxymethyl	8250
Methyl ethyl ketone	8015, 8240
Methyl isobutyl ketone	8015, 8240
Naphthalene	8100, 8250
Naphthoquinone	8090, 8250
Nitrobenzene	8090, 8250
2-Nitropropane	8030, 8240
4-Nitrophenol	8040, 8240
Paraldehyde (trimer of acetaldehyde)	8015, 8240
Pentachlorophenol	8040, 8250
Phenol	8040, 8250
Phorate	8140
Phosphorodithioic acid esters	8140
Phthalic anhydride	8090, 8250
2-Picoline	8090, 8250
Pyridine	8090, 8250
Tetrachlorobenzene(s)	8120, 8250
Tetrachloroethane(s)	8010, 8240
Tetrachloroethene	8010, 8240
Tetrachlorophenol	8040, 8250
Toluene	8020, 8024
Toluenediamine	8250
2,4-Toluenediamine	8250
2,6-Toluenediamine	8250
3,4-Toluenediamine	8250

Table 1.—Analysis Methods for Organic
Chemicals Contained in SW-846—
Continued

Compound	Method No.
Toluene diisocyanate(s)	8250
Toxaphene	8080, 8250
Trichloroethane	8010, 8240
Trichloroethene(s)	8010, 8240
Trichlorofluoromethane	8010, 8240
Trichlorophenol(s)	8040, 8250
2,4,5-Trichlorophenoxy propionic acid	8150, 8250
Trichloropropane	8010, 8240
Vinyl chloride	8010, 8240
Vinylidene chloride	8010, 8240
Xylene	8020, 8240

¹ Analyte for phenanthrene and carbazole; if these are present in a ratio between 1.4:1 and 5:1 cresols should be considered present.

TABLE 2.—ANALYSIS METHODS FOR INORGANIC
CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Antimony	8.50	7040, 7041
Arsenic	8.51	7060, 7061
Barium	8.52	7080, 7081
Cadmium	8.53	7090, 7091
Chromium	8.54	7190, 7191
Chromium, hexavalent	8.545, 8.546	7195, 7196
Cobalt	8.547	7197
Copper	8.56	7420, 7421
Lead	8.57	7470, 7471
Mercury	8.58	7520, 7521
Nickel	8.59	7740, 7741
Selenium	8.60	7760, 7761
Silver	8.65	9010
Cyanides	8.66	9020
Total Organic Halogen	8.67	9030
Sulfides		

TABLE 3.—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sampling of Solid Wastes	1.0		1.0	
Development of Appropriate Sampling Plans	1.0		1.1	
Regulatory and Scientific Objectives	1.0-2		1.1.1	
Fundamental Statistical Concepts	1.0-3		1.1.2	
Basic Statistical Strategies	1.0-7		1.1.3	
Simple Random Sampling			1.1.3.1	
Stratified Random Sampling			1.1.3.2	
Systematic Random Sampling			1.1.3.3	
Special Considerations	1.0-7			
Composite Sampling			1.1.4.1	
Subsampling			1.1.4.2	
Cost and Loss Functions			1.1.4.3	
Implementation of Sampling Plan	1.0-7		1.2	
Selection of Sampling Equipment			1.2.1	
Composite Liquid Waste Sampler	3.2.1		1.2.1.1	
Weighted Bottles	3.2.2		1.2.1.2	
Dipper	3.2.3		1.2.1.3	
Thief	3.2.4		1.2.1.4	
Trier	3.2.5		1.2.1.5	
Auger	3.2.6		1.2.1.6	
Scoop and Shovel	3.2.7		1.2.1.7	
Selection of Sample Containers	3.3		1.2.2	
Processing and Storage of Samples	3.3		1.2.3	
Documentation of Chain of Custody	2.0		1.3	
Sample Labels	2.0-1		1.3.1	
Sample Seals	2.0-3		1.3.2	
Field Log Book	2.0-5		1.3.3	

TABLE 3--SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846--Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Chain-of-Custody Record	2.0-6		1.3.4	
Sample Analysis Request Sheet	2.0-8		1.3.5	
Sample Delivery to Laboratory	2.0-10		1.3.6	
Shipping of Samples	2.0-10		1.3.7	
Receipt and Logging of Sample	2.0-12		1.3.8	
Assignment of Sample for Analysis	2.0-13		1.3.9	
Sampling Methodology	3.0		1.4	
Containers	3.2-2		1.4.1	
Tanks	3.2-2		1.4.2	
Waste Piles	3.2-2		1.4.3	
Landfills and Lagoons	3.2-2		1.4.4	
Waste Evaluation Procedures			2.0	
Characteristics of Hazardous Waste			2.1	
Ignitability	4.0		2.1.1	
Pensky-Martens Closed-Cup Method	4.1		2.1.1	1010
Seitafash Closed-Cup Method	4.1		2.1.1	1020
Corrosivity	5.0		2.1.2	
Corrosivity Toward Steel	5.3		2.1.2	1110
Reactivity	6.0		2.1.3	
Extraction Procedure Toxicity	7.0		2.1.4	
Extraction Procedure Toxicity Test	7.1, 7.2, 7.5			
Method and Structural Integrity Test	7.4		2.1.4	1310
Sample Workup Techniques			4.0	
Inorganic Techniques	8.4.9		4.1	
Acid Digestion for Flame AAS			4.1	3010
Acid Digestion for Furnace AAS			4.1	3020
Acid Digestion of Oil, Grease, or Wax	8.4.9-5		4.1	3030
Dissolution Procedure for Oil, Grease or Wax	8.4.9-6			
Alkaline Digestion	8.0	8.4.58	4.1	3060
Organic Techniques	8.0		4.2	
Separatory Funnel Liquid-Liquid Extraction	9.0	9.1	4.2	3510
Continuous Liquid-Liquid Extraction	9.0	9.01	4.2	3520
Acid-Base Cleanup Extraction	9.0	8.84	4.2	3530
Sorhlet Extraction	9.0	8.86	4.2	3540
Sonication Extraction	9.0	8.85	4.2	3550
Sample Introduction Techniques			5.0	
Headspace	8.0	8.82	5.0	5020
Purge-and-Trap	8.0	8.83	5.0	5030
Inorganic Analytical Methods	8.0		7.0	
Antimony, Flame AAS	8.0	8.50	7.0	7470
Antimony, Furnace AAS	8.0	8.50	7.0	7471
Arsenic, Flame AAS	8.0	8.51	7.0	7060
Arsenic, Furnace AAS	8.0	8.51	7.0	7061
Barium, Flame AAS	8.0	8.52	7.0	7080
Barium, Furnace AAS	8.0	8.52	7.0	7081
Cadmium, Flame AAS	8.0	8.53	7.0	7130
Cadmium, Furnace AAS	8.0	8.53	7.0	7131
Chromium, Flame AAS	8.0	8.54	7.0	7090
Chromium, Furnace AAS	8.0	8.54	7.0	7191
Chromium, Hexavalent, Co-precipitation	8.0	8.54.5	7.0	7195
Chromium, Hexavalent, Colorimetric	8.0	8.54.6	7.0	7196
Chromium, Hexavalent, Chelation	8.0	8.54.7	7.0	7197
Lead, Flame AAS	8.0	8.56	7.0	7420
Lead, Furnace AAS	8.0	8.56	7.0	7421
Mercury, Cold Vapor, Liquid	8.0	8.57	7.0	7470
Mercury, Cold Vapor, Solid	8.0	8.57	7.0	7471
Nickel, Flame AAS	8.0	8.58	7.0	7520
Nickel, Furnace AAS	8.0	8.58	7.0	7521
Selenium, Flame AAS	8.0	8.59	7.0	7740
Selenium, Gaseous Hydride AAS	8.0	8.59	7.0	7741
Silver, Flame AAS	8.0	8.60	7.0	7760
Silver, Furnace AAS	8.0	8.60	7.0	7761
Organic Analytical Methods	8.0		8.0	
Gas Chromatographic Methods	8.0		8.1	
Halogenated Volatile Organics	8.0	8.01	8.1	8010
Nonhalogenated Volatile Organics	8.0	8.01	8.1	8015
Aromatic Volatile Organics	8.0	8.02	8.1	8020
Acrolein, Acrylonitrile, Acetonitrile	8.0	8.03	8.1	8030
Phenols	8.0	8.04	8.1	8040
Phthalate Esters	8.0	8.06	8.1	8060
Organochlorine Pesticides and PCBs	8.0	8.08	8.1	8080
Nitroaromatics and Cyclic Ketones	8.0	8.09	8.1	8090
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.1	8100
Chlorinated Hydrocarbons	8.0	8.12	8.1	8120
Organophosphorus Pesticides	8.0	8.22	8.1	8140
Chlorinated Herbicides	8.0	8.40	8.1	8150

[Appendix III]

TABLE 3—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846—Continued

Title	First edition		Second edition	
	Section No	Method No	Section No	Method No
Gas Chromatographic/Mass Spectroscopy Methods (GC/MS)	8.0		8.2	
GC/MS Volatiles	8.0	8.24	8.2	8240
GC/MS Semi-Volatiles, Packed Column	8.0	8.25	8.2	8250
GC/MS Semi-Volatiles, Capillary	8.0	8.27	8.2	8270
Analysis of Chlorinated Dioxins and Dibenzofurans			8.2	8280
High Performance Liquid Chromatographic Methods (HPLC)	8.0		8.3	
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.3	8310
Miscellaneous Analytical Methods	8.0		9.0	
Cyanide, Total and Amenable to Chlorination	8.0	8.55	9.0	9010
Total Organic Halogen (TOX)	8.0	8.66	9.0	9020
Sulfides	8.0	8.67	9.0	9030
pH Measurement	5.0	5.2	9.0	9040
Quality Control/Quality Assurance	10.0		10.1	
Introduction	10.0		10.1	
Program Design	10.0		10.2	
Sampling	10.0		10.3	
Analysis	10.0		10.4	
Data Handling	10.0		10.5	

*See specific metal.

ANEJO C-3
Appendix VIII
Hazardous Constituents

In the meantime, however, both the corrections to the existing appendix and the revised appendix are published for the convenience of our subscribers.]

Hazardous Constituents

Acetic acid, 2,4,5-trichlorophenoxy-, salts and esters (2,4,5-T, salts and esters)
[Corrected by 51 FR 28297, August 6, 1986]

Acetonitrile (Ethanenitrile)
Acetophenone (Ethanone, 1-phenyl)
3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts (Warfarin)
2-Acetylaminofluorene (Acetamide, N-(9H-fluoren-2-yl)-)
Acetyl chloride (Ethanoyl chloride)
1-Acetyl-2-thiourea (Acetamide, N-(aminothioxomethyl)-)
Acrolein (2-Propenal)
Acrylamide (2-Propenamide)
Acrylonitrile (2-Propenenitrile)
Aflatoxins
Aldrin (1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-endo,exo-1,4:5,8-dimethanonaphthalene)
[Corrected by 51 FR 28297, August 6, 1986]

Allyl alcohol (2-Propen-1-ol)
Aluminum phosphide
4-Aminobiphenyl ([1,1'-Biphenyl]-4-amine)
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl-carbamate azirino[2,3':3,4]pyrrolo[1,2-a]indole-4,7-dione, (ester) (Mitomycin C) (Azirino[2,3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-((amino-carbonyl)oxy)methyl-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-)-5-(Aminomethyl)-3-isoxazolol (3(2H)-Isoxazolone, 5-(aminomethyl)-)
[Corrected by 51 FR 28297, August 6, 1986]

[Corrected by 51 FR 28297, August 6, 1986]

4-Aminopyridine (4-Pyridinamine)
Amitrole (1H-1,2,4-Triazol-3-amine)
Aniline (Benzenamine)
Antimony and compounds, N.O.S.*
Aramite (Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester)
Arsenic and compounds, N.O.S.*
Arsenic acid (Orthoarsenic acid)
Arsenic pentoxide (Arsenic (V) oxide)
Arsenic trioxide (Arsenic (III) oxide)
Auramine (Benzenamine, 4,4'-carbonimidoylbis(N,N-Dimethyl-, mono-hydrochloride)
Azaserine (L-Serine, diazoacetate (ester))
Barium and compounds, N.O.S.*
Barium cyanide
Benz(c)acridine (3,4-Benzacridine)
Benz(a)anthracene (1,2-Benzanthracene)
Benzene, 2-amino-1-methyl (o-Toluidine)
Benzene, 4-amino-1-methyl (p-Toluidine)
Benzene (Cyclohexatriene)
Benzenearsonic acid (Arsonic acid, phenyl-)
Benzene, dichloromethyl- (Benzal chloride)
Benzenethiol (Thiophenol)
Benzidine ([1,1'-Biphenyl]-4,4'-diamine)
Benzo(b)fluoranthene (2,3-Benzofluoranthene)
Benzo(j)fluoranthene (7,8-Benzofluoranthene)
Benzof(a)pyrene (3,4-Benzopyrene)
p-Benzoquinone (1,4-Cyclohexadienedione)
Benzotrithloride (Benzene, trichloromethyl-)

Benzyl chloride (Benzene, chloromethyl-)
Beryllium and compounds, N.O.S.*
Bis(2-chloroethoxy)methane (Ethane, 1,1-(methylenebis(oxy))bis(2-chloro-1-))
Bis(2-chloroethyl) ether (Ethane, 1,1-oxybis(2-chloro-1-))
N,N-Bis(2-chloroethyl)-2-naphthylamine (Chloronaphazine)
Bis(2-chloroisopropyl) ether (Propane, 2,2-oxybis(2-chloro-1-))
Bis(chloromethyl) ether (Methane, oxybis(chloro-1-))
Bis(2-ethylhexyl) phthalate (1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester)
Bromoacetone (2-Propanone, 1-bromo-)
Bromomethane (Methyl bromide)
4-Bromophenyl phenyl ether (Benzene, 1-bromo-4-phenoxy-)
Brucine (Strychnidin-10-one, 2,3-dimethoxy-)
2-Butanone peroxide (Methyl ethyl ketone, peroxide)
Butyl benzyl phthalate (1,2-Benzenedicarboxylic acid, butyl phenyl-methyl ester)
2-sec-Butyl-4,6-dinitrophenol (DNBP) (Phenol, 2,4-dinitro-6-(1-methylpropyl)-)
Cadmium and compounds, N.O.S.*
Calcium chromate (Chromic acid, calcium salt)
Calcium cyanide
Carbamic acid, ethyl ester
[Corrected by 51 FR 28297, August 6, 1986]
Carbon disulfide (Carbon bisulfide)
Carbon oxyfluoride (Carbonyl fluoride)
Chloral (Acetaldehyde, trichloro-)
Chlorambucil (Butanoic acid, 4-(bis(2-chloroethyl)amino)benzene-)
Chlordane (alpha and gamma isomers) (4,7-Methanoindan, 1,2,4,5,8,7,8,8-octachloro-3,4,7,7a-tetrahydro-) (alpha and gamma isomers)
Chlorinated benzenes, N.O.S.*
Chlorinated ethane, N.O.S.*
Chlorinated fluorocarbons, N.O.S.*
Chlorinated naphthalene, N.O.S.*
Chlorinated phenol, N.O.S.*
Chloroacetaldehyde (Acetaldehyde, chloro-)
Chloroalkyl ethers, N.O.S.*
p-Chloroaniline (Benzenamine, 4-chloro-)
Chlorobenzene (Benzene, chloro-)
Chlorobenzilate (Benzenesacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester)
2-Chloro-1,3-butadiene (chloroprene)
[Added by 49 FR 5312, February 10, 1984]
p-Chloro-m-cresol (Phenol, 4-chloro-3-methyl)
1-Chloro-2,3-epoxypropane (Oxirane, 2-(chloromethyl)-)
2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
Chloroform (Methane, trichloro-)
Chloromethane (Methyl chloride)
Chloromethyl methyl ether (Methane, chloromethoxy-)
2-Chloronaphthalene (Naphthalene, beta-chloro-)
2-Chlorophenol (Phenol, o-chloro-)
1-(o-Chlorophenyl)thiourea (Thiourea, (2-chlorophenyl)-)

* The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

[Appendix VIII]

Appendix VIII

[Appendix VIII revised by 46 FR 27476, May 20, 1981; corrected by 46 FR 29708, June 3, 1981; amended by 49 FR 5312, February 10, 1984; 50 FR 1999, January 14, 1985; 50 FR 42942, October 23, 1985; 51 FR 6541, February 25, 1986]
[Corrected and revised by 51 FR 28297, August 6, 1986]

[Editor's note: EPA August 6, 1986, corrected various hazardous constituents in Appendix VIII and concurrently revised the appendix in its entirety (51 FR 28297). However, in revising the appendix, the agency did not include the corrections.

EPA told BNA that the corrections erroneously were omitted from the revised Appendix VIII and that a corrected version will be published.

3-Chloropropene (allyl chloride)
 [Added by 49 FR 5312, February 10, 1984]
 3-Chloropropionitrile (Propanenitrile, 3-chloro-)
 Chromium and compounds, N.O.S.*
 Chrysene (1,2-Benzphenanthrene)
 Citrus red No. 2 (2-Naphthol, 1-[(2,5-dimethoxyphenyl)azo]-)
 Coal tars
 Copper cyanide
 Creosote (Creosote, wood)
 Cresols (Cresylic acid) (Phenol, methyl-)
 Crotonaldehyde (2-Butenal)
 Cyanides (soluble salts and complexes), N.O.S.*
 Cyanogen (Ethanedinitrile)
 Cyanogen bromide (Bromine cyanide)
 Cyanogen chloride (Chlorine cyanide)
 Cycasin (beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl-)
 2-Cyclohexyl-4,6-dinitrophenol (Phenol, 2-cyclohexyl-4,6-dinitro-)
 Cyclophosphamide (2H-1,3,2-Oxazaphosphorine, [bis(2-chloroethyl)amino]-tetrahydro-, 2-oxide)
 Daunomycin (5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-xylo-hexopyranosyl]oxy-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-)
 DDD (Dichlorodiphenyldichloroethane) (Ethane, 1,1-dichloro-2,2-bis(p-chlorophenyl)-)
 DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
 DDT (Dichlorodiphenyltrichloroethane) (Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
 Diallylate (S-(2,3-dichloroallyl) diisopropylthiocarbamate)
 Dibenz[a,h]acridine (1,2,5,6-Dibenzacridine)
 Dibenz[a,j]acridine (1,2,7,8-Dibenzacridine)
 Dibenz[a,h]anthracene (1,2,5,6-Dibenzanthracene)
 7H-Dibenzo[c,g]carbazole (3,4,5,6-Dibenzcarbazole)
 Dibenzof[a,e]pyrene (1,2,4,5-Dibenzpyrene)
 Dibenzof[a,h]pyrene (1,2,5,6-Dibenzpyrene)
 Dibenzof[a,i]pyrene (1,2,7,8-Dibenzpyrene)
 1,2-Dibromo-3-chloropropane (Propane, 1,2-dibromo-3-chloro-)
 1,2-Dibromoethane (Ethylene dibromide)
 Dibromomethane (Methylene bromide)
 Di-n-butyl phthalate (1,2-Benzenedicarboxylic acid, dibutyl ester)
 o-Dichlorobenzene (Benzene, 1,2-dichloro-)
 m-Dichlorobenzene (Benzene, 1,3-dichloro-)
 p-Dichlorobenzene (Benzene, 1,4-dichloro-)
 Dichlorobenzene, N.O.S.* (Benzene, dichloro-, N.O.S.*)
 3,3'-Dichlorobenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-)
 1,4-Dichloro-2-butene (2-Butene, 1,4-dichloro-)
 Dichlorodifluoromethane (Methane, dichlorodifluoro-)
 1,1-Dichloroethane (Ethylidene dichloride)
 1,2-Dichloroethane (Ethylene dichloride)
 trans-1,2-Dichloroethene (1,2-Dichloroethylene)
 Dichloroethylene, N.O.S.* (Ethene, dichloro-, N.O.S.*)
 1,1-Dichloroethylene (Ethene, 1,1-dichloro-)
 Dichloromethane (Methylene chloride)
 2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
 2,6-Dichlorophenol (Phenol, 2,6-dichloro-)
 2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (Acetic acid, 2,4-dichlorophenoxy-, salts and esters)
 Dichlorophenylarsine (Phenyl dichloroarsine)
 Dichloropropane, N.O.S.* (Propane, dichloro-, N.O.S.*)
 1,2-Dichloropropane (Propylene dichloride)
 Dichloropropanol, N.O.S.* (Propanol, dichloro-, N.O.S.*)
 Dichloropropene, N.O.S.* (Propene, dichloro-, N.O.S.*)
 1,3-Dichloropropene (1-Propene, 1,3-dichloro-)
 Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octa-hydro-endo,exo-1,4:5,8-Dimethanonaphthalene)
 1,2,3,4-Diepoxybutane (2,2-Bioxirane)
 Diethylarsine (Arsine, diethyl-)
 N,N'-Diethylhydrazine (Hydrazine, 1,2-diethyl-)
 [Corrected by 51 FR 28297, August 6, 1986]
 O,O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid, O,O-diethyl S-methyl ester)
 O,O-Diethylphosphoric acid, O-p-nitrophenyl ester (Phosphoric acid, diethyl p-nitrophenyl ester)
 Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
 O,O-Diethyl O-2-pyrazinyl phosphorothioate (Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester)
 Diethylstilbesterol (4,4'-Stilbenediol, alpha, alpha-diethyl, bis(dihydrogen phosphate, (E)-)
 Dihydrosafrole (Benzene, 1,2-methylene-dioxy-4-propyl-)
 3,4-Dihydroxy-alpha-(methylamino)methylbenzyl alcohol (1,2-Benzenediol, 4-[(1-hydroxy-2-(methylamino)ethyl)-])
 Diisopropylfluorophosphate (DFP) (Phosphorofluoric acid, bis(1-methylethyl) ester)
 Dimethoate (Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester)
 3,3'-Dimethoxybenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-)
 p-Dimethylaminoazobenzene (Benzenamine, N,N-dimethyl-4-(phenylazo)-)
 7,12-Dimethylbenz[a]anthracene (1,2-Benzanthracene, 7,12-dimethyl-)
 3,3'-Dimethylbenzidine ((1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-)
 Dimethylcarbamoyl chloride (Carbamoyl chloride, dimethyl-)
 1,1-Dimethylhydrazine (Hydrazine, 1,1-dimethyl-)
 1,2-Dimethylhydrazine (Hydrazine, 1,2-dimethyl-)
 3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl]oxime (Thiofanox)
 alpha, alpha-Dimethylphenethylamine (Eth-anamine, 1,1-dimethyl-2-phenyl-)
 2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
 Dimethyl phthalate (1,2-Benzenedicarboxylic acid, dimethyl ester)
 Dimethyl sulfate (Sulfuric acid, dimethyl ester)
 Dinitrobenzene, N.O.S.* (Benzene, dinitro-, N.O.S.*)
 4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
 2,4-Dinitrophenol (Phenol, 2,4-dinitro-)
 2,4-Dinitrotoluene (Benzene, 1-methyl-2,4-dinitro-)
 2,6-Dinitrotoluene (Benzene, 1-methyl-2,6-dinitro-)
 Di-n-octyl phthalate (1,2-Benzenedicarboxylic acid, dioctyl ester)
 1,4-Dioxane (1,4-Diethylene oxide)
 Diphenylamine (Benzenamine, N-phenyl-)
 1,2-Diphenylhydrazine (Hydrazine, 1,2-diphenyl-)
 Di-n-propylnitrosamine (N-Nitroso-di-n-propylamine)
 Disulfoton (O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate)
 2,4-Dithiobiuret (Thioimidodicarbonic diamide)
 Endosulfan (5-Norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite)
 Endrin and metabolites (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene, and metabolites)
 Ethyl cyanide (propanenitrile)
 Ethylenebisdithiocarbamic acid, salts and esters (1,2-Ethanedithyldisulfamodithioic acid, salts and esters)
 Ethylene glycol monoethyl ether (Exthanol, 2-ethoxy)
 [Added by 51 FR 6541, February 25, 1986]
 Ethyleneimine (Aziridine)
 Ethylene oxide (Oxirane)
 Ethylenethiourea (2-Imidazolidinethione)
 Ethyl methacrylate (2-Propenoic acid, 2-methyl-, ethyl ester)
 Ethyl methanesulfonate (Methanesulfonic acid, ethyl ester)
 Fluoranthene (Benzo[*a*,*k*]fluorene)
 Fluorine
 2-Fluoroacetamide (Acetamide, 2-fluoro-)
 Fluoroacetic acid, sodium salt (Acetic acid, fluoro-, sodium salt)
 Formaldehyde (Methylene oxide)
 Formic acid (Methanoic acid)
 Glycidylaldehyde (1-propanol-2,3-epoxy)
 [Corrected by 51 FR 28297, August 6, 1986]
 Halomethane, N.O.S.*
 Heptachlor (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-)
 Heptachlor epoxide (alpha, beta, and gamma isomers) (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta, and gamma isomers)
 Hexachlorobenzene (Benzene, hexachloro-)
 Hexachlorobutadiene (1,3-Butadiene, hexachloro-)
 [Corrected by 51 FR 28297, August 6, 1986]
 Hexachlorocyclohexane (all isomers) (Lindane and isomers)
 Hexachlorocyclopentadiene (1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-)
 Hexachlorodibenzo-p-dioxins
 Hexachlorodibenzofurans
 Hexachloroethane (Ethane, hexachloro-)
 [Corrected by 51 FR 28297, August 6, 1986]
 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene (Hexachlorohexahydro-endo,endo-dimethanonaphthalene)
 Hexachlorophene (2,2-Methylenebis(3,4,6-trichlorophenol))
 Hexachloropropene (Propene, hexachloro-)
 [Corrected by 51 FR 28297, August 6, 1986]

Hexaethyl tetraphosphate (Tetraphosphoric acid, hexaethyl ester)
 Hydrazine (Diamine)
 Hydrocyanic acid (Hydrogen cyanide)
 Hydrofluoric acid (Hydrogen fluoride)
 Hydrogen sulfide (Sulfur hydride)
 Hydroxydimethylarsine oxide (Cacodylic acid)
 Indeno(1,2,3-cd)pyrene (1,10-(1,2-phenylene)pyrene)
 Iodomethane (Methyl iodide)
 Iron dextran (Ferric dextran)
 Isocyanic acid, methyl ester (Methyl isocyanate)
 Isobutyl alcohol (1-Propanol, 2-methyl-)
 Isosafrole (Benzene, 1,2-methylenedioxy-4-allyl-)
 Kepone (Decachlorooctahydro-1,3,4-methano-2H-cyclobuta[cd]-pentalene-2-one)
 [Corrected by 51 FR 28297, August 6, 1986]
 Lasiocarpine (2-Butenoic acid, 2-methyl-, 7-((2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)
 Lead and compounds, N.O.S.*
 Lead acetate (Acetic acid, lead salt)
 Lead phosphate (Phosphoric acid, lead salt)
 Lead subacetate (Lead, bis(acetato-O)tetrahydroxytri-)
 Maleic anhydride (2,5-Furandione)
 Maleic hydrazide (1,2-Dihydro-3,6-pyridazin-edione)
 Malononitrile (Propanedinitrile)
 Melphalan (Alanine, 3-(p-bis(2-chloroethyl)aminophenyl-, L-)
 Mercury fulminate (Fulminic acid, mercury salt)
 Mercury and compounds, N.O.S.*
 Methacrylonitrile (2-Propenenitrile, 2-methyl-)
 Methanethiol (Thiomethanol)
 Methapyrilene (Pyridine, 2-((2-dimethylamino)ethyl)-2-thenylamino-)
 Metholmyl (Acetimidic acid, N-((methylcarbamoyl)oxy)thio-, methyl ester)
 Methoxychlor (Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-)
 2-Methylaziridine (1,2-Propylenimine)
 3-Methylcholanthrene (Benz[*a*]aceanthrylene, 1,2-dihydro-3-methyl-)
 Methyl chlorocarbonate (Carbonochloridic acid, methyl ester)
 4,4'-Methylenebis(2-chloroaniline) (Benzeneamine, 4,4'-methylenebis(2-chloro-))
 Methyl ethyl ketone (MEK) (2-Butanone)
 Methyl hydrazine (Hydrazine, methyl-)
 2-Methylactonitrile (Propanenitrile, 2-hydroxy-2-methyl-)
 Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
 Methyl methanesulfonate (Methanesulfonic acid, methyl ester)
 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime (Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime)

[Editor's note: EPA August 6, 1986, corrected 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl)oxime to read "2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl)oxime" (51 FR 28297). However, this hazardous constituent was never added to Appendix VIII.]

N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-nitroso-N-methyl-N'-nitro-)
 Methyl parathion (O,O-dimethyl O-[4-nitrophenyl] phosphorothioate)
 Methylthiouracil (4-1H-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
 Mustard gas (Sulfide, bis(2-chloroethyl)-)
 Naphthalene
 1,4-Naphthoquinone (1,4-Naphthalenedione)
 1-Naphthylamine (alpha-Naphthylamine)
 2-Naphthylamine (beta-Naphthylamine)
 1-Naphthyl-2-thiourea (Thiourea, 1-naphthalenyl-)
 Nickel and compounds, N.O.S.*
 Nickel carbonyl (Nickel tetracarbonyl)
 Nickel cyanide (Nickel (II) cyanide)
 Nicotine and salts (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
 Nitric oxide (Nitrogen (II) oxide)
 p-Nitroaniline (Benzenamine, 4-nitro-)
 [Editor's note: EPA August 6, 1986, corrected Nitrobenzene to read "Nitrobenzene" (51 FR 28297). However, this hazardous constituent was never added to Appendix VIII.]
 Nitrobenzene (Benzene, nitro-)
 Nitrogen dioxide (Nitrogen (IV) oxide)
 Nitrogen mustard and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)

Nitrogen mustard N-oxide and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-N-oxide, and hydrochloride salt)

[Corrected by 51 FR 28297, August 6, 1986]

Nitroglycerine (1,2,3-Propanetriol, trinitrate)
 4-Nitrophenol (Phenol, 4-nitro-)
 2-Nitropropane (Propane, 2-nitro)
 [Added by 51 FR 6541, February 25, 1986]
 4-Nitroquinoline-1-oxide (Quinoline, 4-nitro-1-oxide-)
 Nitrosamine, N.O.S.*
 N-Nitrosodi-n-butylamine (1-Butanamine, N-butyl-N-nitroso-)
 N-Nitrosodiethanolamine (Ethanol, 2,2'-(nitrosoimino)bis-)
 N-Nitrosodiethylamine (Ethanamine, N-ethyl-N-nitroso-)
 N-Nitrosodimethylamine (Dimethylnitrosamine)
 N-Nitroso-N-ethylurea (Carbamide, N-ethyl-N-nitroso-)
 N-Nitrosomethylethylamine (Ethanamine, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurea (Carbamide, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurethane (Carbamic acid, methylnitroso-, ethyl ester)
 N-Nitrosomethylvinylamine (Ethanamine, N-methyl-N-nitroso-)
 N-Nitrosomorpholine (Morpholine, N-nitroso-)
 N-Nitrosornicotine (Nicotinic acid, N-nitroso-)
 N-Nitrosopiperidine (Pyridine, hexahydro-, N-nitroso-)

[Editor's note: EPA August 6, 1986, corrected Nitrosopyrrolidine to read "N-Nitrosopyrrolidine" (51 FR 28297). How-

ever, this hazardous constituent was never added to Appendix VIII.]

Nitrosopyrrolidine (Pyrrole, tetrahydro-, N-nitroso-)
 N-Nitrososarcosine (Sarcosine, N-nitroso-)
 5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-nitro-)
 Octamethylpyrophosphoramide (Diphosphoramidate, octamethyl-)
 Osmium tetroxide (Osmium (VIII) oxide)
 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (Endothal)
 Paraldehyde (1,3,5-Trioxane, 2,4,6-trimethyl-)
 Parathion (Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester)
 Pentachlorobenzene (Benzene, pentachloro-)
 Pentachlorodibenzo-p-dioxins
 Pentachlorodibenzofurans
 Pentachloroethane (Ethane, pentachloro-)
 Pentachloronitrobenzene (PCNB) (Benzene, pentachloronitro-)
 Pentachlorophenol (Phenol, pentachloro-)
 Perchloromethyl mercaptan (Methanesulfonyl chloride, trichloro-)

[Corrected by 51 FR 28297, August 6, 1986]

Phenacetin (Acetamide, N-(4-ethoxyphenyl)-)
 Phenol (Benzene, hydroxy-)
 Phenylenediamine (Benzenediamine)
 Phenylmercury acetate (Mercury, acetatophenyl-)
 N-Phenylthiourea (Thiourea, phenyl-)
 Phosgene (Carbonyl chloride)
 Phosphine (Hydrogen phosphide)
 Phosphorodithioic acid, O,O-diethyl S-[[ethylthio)methyl] ester (Phorate)
 Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)sulfonyl)phenyl] ester (Famphur)
 Phthalic acid esters, N.O.S.* (Benzene, 1,2-dicarboxylic acid, esters, N.O.S.*)
 Phthalic anhydride (1,2-Benzenedicarboxylic acid anhydride)
 2-Picoline (Pyridine, 2-methyl-)
 Polychlorinated biphenyl, N.O.S.*
 Potassium cyanide
 Potassium silver cyanide (Argentate(1-), dicyano-, potassium)
 Pronamide (3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
 1,3-Propane sultone (1,2-Oxathiolane, 2,2-dioxide)
 Propionic acid, 2- (2,4,5-trichlorophenoxy salts and esters (2,4,5-TP, Silvex, salts and esters)

[Corrected by 51 FR 28297, August 6, 1986]

n-Propylamine (1-Propanamine)
 Propylthiouracil (2,3-dihydro-6-propyl-2-thioxo-4(1H)-pyrimidinone)
 [Corrected by 51 FR 28297, August 6, 1986]
 2-Propyn-1-ol (Propargyl alcohol)
 Pyridine
 Reserpine (Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[[3,4,5-trimethoxybenzoyl]oxy]-, methyl ester)
 Resorcinol (1,3-Benzenediol)
 Saccharin and salts (1,2-Benzoisothiazolin-3-one, 1,1-dioxide, and salts)

Sulfur (Benzene, 1,1-methylenedioxy-4-alkyl-)

Selenious acid (Selenium dioxide)

Selenium and compounds, N.O.S.*

Selenium sulfide (Sulfur selenide)

Selenourea (Carbamimidoseleonic acid)

Silver and compounds, N.O.S.*

Silver cyanide

Sodium cyanide

Streptozotocin (D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-)

Strontium sulfide

Strychnine and salts (Strychnidin-10-one, and salts)

1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-tetrachloro-)

2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)

Tetrachlorodibenzo-p-dioxins

Tetrachloroethane, N.O.S.* (Ethane, tetrachloro-, N.O.S.*)

1,1,1,2-Tetrachloroethane (Ethane, 1,1,1,2-tetrachloro-)

1,1,2,2-Tetrachloroethane (Ethane, 1,1,2,2-tetrachloro-)

Tetrachloroethane (Ethene, tetrachloro-)

[Corrected by 51 FR 28297, August 6, 1986]

Tetrachloromethane (Carbon tetrachloride)

2,3,4,6-Tetrachlorophenol (Phenol, 2,3,4,6-tetrachloro-)

Tetraethyldithiopyrophosphate (Dithiopyrophosphoric acid, tetraethyl-ester)

Tetraethyl lead (Plumbane, tetraethyl-)

Tetraethylpyrophosphate (Pyrophosphoric acid, tetraethyl-ester)

Tetranitromethane (Methane, tetranitro-)

Thallium and compounds, N.O.S.*

Thallia oxide (Thallium (III), oxide)

Thallium (I) acetate (Acetic acid, thallium (I) salt)

Thallium (I) carbonate (Carbonic acid, dithallium (I) salt)

Thallium (I) chloride

Thallium (I) nitrate (Nitric acid, thallium (I) salt)

Thallium selenite

Thallium (I) sulfate (Sulfuric acid, thallium (I) salt)

Thioacetamide (Ethanethioamide)

Thiosemicarbazide

(Hydrazinethiocarbonylthioamide)

Thiourea (Carbamide thio-)

Thiuram (Bis(dimethylthiocarbonyl) disulfide)

Toluene (Benzene, methyl-)

Toluenediamine (Toluene, 2,5-diamine-)

[Corrected by 51 FR 28297, August 6, 1986]

2,4-Toluenediamine

2,6-Toluenediamine

3,4-Toluenediamine

Toluenediamine, N.O.S.

o-Toluidine hydrochloride (Benzenamine, 2-methyl-, hydrochloride)

Tolylene diisocyanate (Benzene, 2,4-and 2,6-diisocyanatomethyl-)

[Corrected by 51 FR 28297, August 6, 1986]

Toxaphene (Camphene, octachloro-)

Tribromomethane (Bromotorm)

1,2,4-Trichlorobenzene (Benzene, 1,2,4-trichloro-)

1,1,1-Trichloroethane (Methyl chloroform)

1,1,2-Trichloroethane (Ethane, 1,1,2-trichloro-)

Trichloroethene (Trichloroethylene)

[Editor's note: EPA August 6, 1986

corrected Trichloromethanethiol to read

Perchloromethyl mercaptan (Methanesulfonyl chloride, trichloro-) (51 FR 28297). However, the former hazardous constituent was never added to Appendix VIII.]

Trichloromethanethiol (Methanethiol, trichloro-)

Trichloromonofluoromethane (Methane, trichlorofluoro-)

2,4,5-Trichlorophenol (Phenol, 2,4,5-trichloro-)

2,4,6-Trichlorophenol (Phenol, 2,4,6-trichloro-)

Trichloropropane, N.O.S.* (Propane, trichloro-, N.O.S.*)

1,2,3-Trichloropropane (Propane, 1,2,3-trichloro-)

O,O,O-Triethyl phosphorothioate (Phosphorothioic acid, O,O,O-triethyl ester)

sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-)

Tris(1-aziridinyl) phosphine sulfide

(Phosphine sulfide, tris(1-aziridinyl-))

Tris(2,3-dibromopropyl) phosphite (1-Propanol, 2,3-dibromo-, phosphite)

Trypan blue (2,7-Naphthalenedisulfonic acid, 3,3'-[[3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl]bis(azo)]bis(5-amino-4-hydroxy-, tetrasodium salt)

[Undecamethylenediamine, N,N'-bis-2-chlorobenzyl-, dihydrochloride (N,N'-Undecamethylenebis (2-chlorobenzylamine, dihydrochloride)

[Corrected by 51 FR 28297, August 6, 1986]

Uracil mustard (Uracil 5-[bis(2-chloroethyl)amino]-)

Vanadic acid, ammonium salt (ammonium vanadate)

Vanadium pentoxide (Vanadium (V) oxide)

Vinyl chloride (Ethene, chloro-)

Zinc cyanide

Zinc phosphide

[Appendix VIII revised by 51 FR 28279, August 6, 1986]

APPENDIX VIII.—HAZARDOUS CONSTITUENTS

Common name	Chemical abstracts name	Chemical abstracts No.
Acetonitrile	Same	75-05-8
Acetophenone	Ethanone, 1-phenyl-	98-06-2
2-Acetylaminofluorene	Acetamide, N-(9H-fluoren-2-yl)-	53-96-3
Acetyl chloride	Same	75-36-5
1-Acetyl-2-thiourea	Acetamide, N-(aminothioformylmethyl)-	591-08-2
Acrolein	2-Propenal	107-02-6
Acrylamide	2-Propenamide	79-06-1
Acrylonitrile	2-Propenenitrile	107-13-1
Allatoxins	Allatoxin	1402-88-2
Aldicarb	Propenal, 2-methyl-2-(methylthio)-, O-[1(methylaminocarbonyl)oxime]	118-06-3
Alidin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-	308-00-2
Allyl alcohol	2-Propen-1-ol	107-18-6
Allyl chloride	1-Propane, 3-chloro-	107-05-1
Aluminum phosphide	Same	20859-73-8
4-Aminobiphenyl	(1,1'-Biphenyl)-4-amine	82-67-1
5-(Aminomethyl)-3-isoxazolin	3(2H)-isoxazolin-5-(aminomethyl)-	2763-96-4
4-Aminopyridine	4-Pyridineamine	504-24-6
Amide	1H-1,2,4-Thiazol-3-amine	61-82-6
Ammonium vanadate	Vanadic acid, ammonium salt	7803-85-6
Aniline	Benzenamine	62-53-3
Antimony and compounds, N.O.S.*	Antimony	7440-38-0
Aramite	Sulfurous acid, 2-chloroethyl-, 2-[(4-(1,1-dimethyl-2-phenoxy)-1-methyl-ethyl ester]	140-57-8
Arsenic and compounds, N.O.S.*	Arsenic	7440-38-2
Arsenic acid	Arsenic acid AsH ₂ O ₃	7778-39-4
Arsenic pentoxide	Arsenic oxide As ₂ O ₅	1303-28-2
Arsenic trioxide	Arsenic oxide As ₂ O ₃	1327-53-3
Auramine	Benzenamine, 4,4'-carborendiylbis[N,N'-dimethyl-	482-80-8

[Appendix VIII]

APPENDIX VII—HAZARDOUS CONSTITUENTS—Continued

Common name	Chemical abstract name	Chemical abstract no.
Azaserine	1-Serine, diazobenzoyl ester	115-02-4
Barium and compounds, N.O.S. ¹	Barium	7440-39-9
Barium cyanide	Same	542-52-7
Benz[<i>a</i>]acridine	Same	225-51-4
Benz[<i>a</i>]anthracene	Same	56-55-0
Benzene, chloride	Benzene, (dichloromethyl)	98-87-2
Benzene	Same	71-43-2
Benzeneacetic acid	Arsenic acid phenyl	98-05-5
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	97-87-1
Benzol[<i>b</i>]fluoranthene	Benz[e]acphenanthrylene	205-99-2
Benzol[<i>j</i>]fluoranthene	Same	205-82-3
Benzol[<i>k</i>]pyrene	Same	50-32-6
p-Benzodioxole	2,5-Cyclohexadiene-1,4-dione	106-51-4
Benzotrifluoride	Benzene, trichloromethyl	98-07-7
Benzyl chloride	Benzene, (chloromethyl)	100-44-7
Beryllium and compounds, N.O.S. ¹	Beryllium	7440-41-1
Bis(2-chloroethoxy)methane	Ethane, 1,1'-(methylenedioxy)bis(2-chloro-	111-81-1
Bis(2-chloroethyl) ether	Ethane, 1,1'-oxybis(2-chloro-	111-44-4
Bis(2-chloropropyl) ether	Propane, 2,2'-oxybis(2-chloro-	39635-32-9
Bis(chloromethyl) ether	Methane, oxybis(chloro-	542-88-1
Bis(2-ethylhexyl) phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7
Bromobenzene	2-Bromobenzene	598-31-2
Bromolform	Methane, tribromo	75-25-2
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenyl	101-55-3
butene	Styrene	357-57-0
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid butyl phenylmethyl ester	85-68-7
Calcic acid	Arsenic acid dimethyl	75-60-5
Cadmium and compounds, N.O.S. ¹	Cadmium	7440-43-9
Calcium chromate	Chromic acid, calcium salt	13785-19-0
Calcium cyanide	Same	592-01-8
Carbon disulfide	Carbon disulfide	75-15-0
Carbon oxyfluoride	Carbonic difluoride	353-50-4
Carbon tetrachloride	Methane, tetrachloro	56-23-5
Chloral	Acetaldehyde, monochloro	75-87-6
Chlorambuck	Benzenebutanoic acid, 4-[(bis(2-chloroethyl)amino-	305-03-3
Chloroalkanes, alpha and gamma isomers	1,4-Methano-1H-indene 1,2 : 5,6,7,8,8-octachloro-2,3,3a : 7,7a-hexahydro-	57-74-9
Chlorinated benzenes, N.O.S. ¹		
Chlorinated ethane, N.O.S. ¹		
Chlorinated fluorocarbons, N.O.S. ¹		
Chlorinated naphthalene, N.O.S. ¹		
Chlorinated phenol, N.O.S. ¹		
Chloraniline	2-Naphthalenamine, N,N-bis(2-chloroethyl)	494-03-1
Chloroacetaldehyde	Acetaldehyde, chloro	107-20-0
Chloroalkyl ethers, N.O.S. ¹		
p-Chloroaniline	Benzenamine, 4-chloro	106-47-6
Chlorobenzene	Benzene, chloro	108-90-7
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl	59-60-7
1-Chloro-2,3-epoxypropane	Oxirane, (chloromethyl)	106-89-8
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)	110-75-8
Chloroform	Methane, trichloro	67-66-3
Chloromethyl methyl ether	Methane, chloromethoxy	107-30-2
beta-Chloronaphthalene	Naphthalene, 2-chloro	91-58-7
o-Chloropheno-	Phenol, 2-chloro	95-57-6
1-(o-Chlorophenyl) thiourea	Thiourea, (2-chlorophenyl)	5344-82-1
Chloroprene	2-Chloro-1,3-butadiene	125-99-8
3-Chloropropionitrile	Propenenitrile, 3-chloro	542-76-7
Chromium and compounds, N.O.S. ¹	Chromium	7440-47-3
Chrysene	Same	218-01-9
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6950-53-8
Coal tars		8005-45-2
Copper cyanide	Copper cyanide CuCN	544-92-3
Cresols	Same	8001-58-9
Cresols (Cresylic acid)	Phenol, methyl	1319-77-3
Oxonaldehyde	2-Butenal	4170-30-3
Cyanides (soluble salts and complexes), N.O.S. ¹		
Cyanogen	Ethanedinitrile	480-19-6
Cyanogen bromide	Same	508-68-3
Cyanogen chloride	Same	506-77-4
Cyasin	beta-D-Glucopyranoside, (methyl-ONN-azoxymethyl)	14901-08-7
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro	131-89-5
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	60-18-0
2,4-D, salts and esters	Acetic acid, (2,4-dichlorophenyl)-, salts and esters	84-75-7
Daunomycin	5,12-Naphthacenedione, (6S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy	20630-81-3
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro-	72-54-8
DOE	Benzene, 1,1'-(dichloroethoxyethylene)bis(4-chloro-	72-55-9
DOT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro-	50-29-3
Dallate	Ceremethic acid, bis(1-methylthyl)-S-(2,3-dichloro-2-propenyl) ester	2303-16-4
Dibenz[<i>a,h</i>]acridine	Same	226-36-8
Dibenz[<i>a,h</i>]acridine	Same	224-42-0
Dibenz[<i>a,h</i>]anthracene	Same	63-70-3
7H-Dibenzo[<i>c,g</i>]carbazole	Same	184-59-2
Dibenz[<i>a,e</i>]pyrene	Naphthal[1,2,3,4-def]chrysene	192-65-4
Dibenz[<i>a,h</i>]pyrene	Dibenzo[<i>b,de</i>]chrysene	189-64-0
Dibenz[<i>a,h</i>]pyrene	Benzo[<i>ghi</i>]perylene	189-55-9
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro	98-12-8
Diethylphthalate	1,2-Benzenedicarboxylic acid diethyl ester	84-74-2
o-Dichlorobenzene	Benzene, 1,2-dichloro	95-50-1
m-Dichlorobenzene	Benzene, 1,3-dichloro	641-73-1

APPENDIX VIII.—HAZARDOUS CONSTITUENTS—Continued

Common name	Chemical abstract name	Chemical abstract No.
p-Dichlorobenzene	Benzene, 1,4-dichloro	106-41-7
Dichlorobenzene, N.O.S.	Benzene, dichloro	25321-22-6
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro	91-94-1
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro	764-41-0
Dichlorodifluoromethane	Methane, dichlorodifluoro	75-71-8
1,2-Dichloroethylene	Ethene, 1,2-dichloro, (E)	156-60-5
Dichloroethylene, N.O.S.	Dichloroethylene	25323-30-2
1,1-Dichloroethylene	Ethene, 1,1-dichloro	75-35-4
2,4-Dichlorophenol	Phenol, 2,4-dichloro	120-83-2
2,6-Dichlorophenol	Phenol, 2,6-dichloro	87-65-0
Dichlorophenylarsine	Arsinous dichloride, phenyl-	696-26-6
Dichloropropane, N.O.S.	Propane, dichloro	26638-19-7
Dichloropropanol, N.O.S.	Propanol, dichloro	26545-73-3
Dichloropropene, N.O.S.	1-Propene, dichloro	26952-23-8
1,3-Dichloropropene	1-Propene, 1,3-dichloro	542-75-6
Dieldrin	2,7,3,6-Dimethanonaphth[2,3-b]oxarene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (ααlpha,2beta,2αalpha,3beta,6beta,6αalpha,7beta,7αalpha)-	60-57-1
1,2,3,4-Diepoxybutane	2,2'-Bioxane	1464-53-5
Diethylarsine	Arsine, diethyl-	692-42-2
1,4-Diethyleneoxide	1,4-Dioxane	123-81-1
N,N'-Dimethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1
O,O-Diethyl S-methylthiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3286-58-2
Diethyl-p-nitro phenyl phosphate	Phosphoric acid, diethyl-4-nitrophenyl ester	311-45-5
Diethylphthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2
O,O-Diethyl O-pyrazinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2
Diethylstilbestrol	Phenol, 4,4'-[1,2-diethyl-1,2-ethenediyl]bis-(E)-	56-53-1
Dihydroxyacetone	1,3-Benzodioxole, 5-propyl	94-56-6
3,4-Dihydroxy-2-pyridyl(methylamino)methyl benzyl alcohol	(+)-1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-	329-65-7
Diisopropylfluorophosphate(DFP)	Phosphorofluoric acid, bis(1-methylethyl) ester	55-81-4
Dimethoxi	Phosphorodithioic acid, O,O-dimethyl S-12-	60-51-5
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy	119-90-4
p-Dimethylanilinoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl	57-97-6
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl	119-93-7
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl	57-14-7
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl	540-73-8
alpha, alpha-Dimethylphenethylamine	Benzenethanamine, alpha,alpha-dimethyl	122-09-8
2,4-Dimethylphenol	Phenol, 2,4-dimethyl	105-67-9
Dimethylphthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1
Dinitrobenzene, N.O.S.	Benzene, dinitro	25154-54-5
4,6-Dinitro-o-cresol and salts	Phenol, 2-methyl-4,6-dinitro and salts	534-52-1
2,4-Dinitrophenol	Phenol, 2,4-dinitro	51-28-5
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro	121-14-2
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro	906-20-2
Dioleob	Phenol, 2-(1-methylpropyl)-4,6-dinitro	88-85-7
Di-n-octylphthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0
Diphenylamine	Benzenamine, N-phenyl	122-39-4
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl	122-66-7
Di-n-propylacetamine	1-Propenamine, N-nitroso-N-propyl	821-64-7
Deuteron	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4
Dibazole	Thiodiimidicarbonyl diamide	541-63-7
Endosulfan	6,9-Metheno-2,4,3-benzodioxathien, 6,7,8,9,10,10-hexachloro-1a,5,6,8,9a-hexahydro-3-oxide	115-29-7
Endothal	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3
Endrin	2,7,3,6-Dimethanonaphth[2,3-b]oxarene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (ααlpha,2beta,2βbeta,3αalpha,6αalpha,6βbeta,7βbeta,7αalpha)-	72-20-8
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-8
Ethyl cyanide	Propanenitrile	107-12-0
Ethylenebis(dithiocarbamic acid, salts and esters)	Carbamodithioic acid, 1,2-ethanedithioic, salts and esters	111-64-6
Ethylene dibromide	Ethane, 1,2-dibromo	106-93-4
Ethylene dichloride	Ethane, 1,2-dichloro	107-06-2
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy	110-80-8
Ethyleneimine	Aziridine	161-56-4
Ethylene oxide	Oxirane	75-21-8
Ethylene sulfide	2-Imidazolidinethione	96-45-7
Ethylene dichloride	Ethane, 1,1-dichloro	75-34-3
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2
Ethylmethane sulfonate	Methanesulfonic acid, ethyl ester	62-50-0
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino) sulfonyl] phenyl] O,O-dimethyl ester	52-85-7
Fluoranthene	Same	206-44-0
Fluorine	Same	7782-41-4
Fluoroacetamide	Acetamide, 2-fluoro	640-19-7
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8
Formaldehyde	Same	50-00-0
Glycidylaldehyde	Oxiranecarboxaldehyde	785-34-4
Halomethane, N.O.S.		
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	78-44-6
Heptachlor epoxide	2,5-Methano-2H-indenol[1,2b]oxirane, 2,3,4,5,6,7,7-heptachloro-1a,6,5a,6,6a-hexahydro-alpha, beta and gamma isomers	1024-57-3
Hexachlorobenzene	Benzene, hexachloro	118-74-1
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro	87-68-3
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro	77-47-4
Hexachlorodibenzo-p-dione		
Hexachlorodibenzofuran		
Hexachloroethane	Ethane, hexachloro	67-72-1
Hexachlorophene	Phenol, 2,2-methylenebis[3,4,6-trichloro-	70-30-4
Hexachloropropene	1-Propene, hexachloro	1888-71-7
Hexaethyltetraphosphate	Tetraphosphoric acid, hexaethyl ester	767-58-4
Hydrazine	Same	302-01-2

APPENDIX VII.—HAZARDOUS CONSTITUENTS—Continued

Common name	Chemical abstract name	Chemical CAS#
Hydrogen cyanide	Hydrocyanic acid	74-90-8
Hydrogen fluoride	Hydrofluoric acid	7664-39-5
Hydrogen sulfide	Same	7783-06-4
Isobutyl 1,2,3-cyclohexene	Same	193-39-5
Iron dextran	Same	9004-66-4
Isobutyl alcohol	1-Propanol, 2-methyl	78-83-1
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8a-hexahydro-1 α ,4 α ,4 β ,5 β ,8 β ,8 β -	
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1
Ketone	1,3,4-Methano-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-	143-50-0
Leucocardine	2-Butanoic acid, 2-methyl-, 7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxymethyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [(1S-1 α phenyl(2,7(2a,3R),7a α phenyl)]-	303-34-4
Lead and compounds, N.O.S.		7439-92-1
Lead acetate	Acetic acid, lead(2+) salt	301-04-2
Lead phosphate	Phosphoric acid, lead(2+) salt	7446-27-7
Lead subacetate	Lead bis(acetato-O)(tetrahydroxy-	1335-32-6
Linalool	Cyclohexane, 1,2,3,4,5,6-Hexachloro-	58-89-9
Maleic anhydride	2,5-Furandione	108-31-6
Maleic hydrazide	3,6-Pyrazinedione, 1,2-dihydro-	123-33-1
Malononitrile	Propanedinitrile	109-77-3
Melphalan	L-Phenylalanine, 4-[(bis(2-chloroethyl)amino)-	148-82-3
Mercury fulminate	Fulminic acid, mercury(2+) salt	828-86-4
Mercury and compounds N.O.S.	Same	7439-97-6
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-96-7
Methacrylene	1,2-Ethanediamine, N,N-dimethyl-N-2-pyridinyl-N-(2-thenylmethyl)-	81-80-5
Methomyl	Acetimidic acid, N-[(methoxycarbonyloxy)thio-, methyl ester	18752-77-5
Methoxychlor	Benzene, 1,1-(2,2,2-trichloroethylidene)(4-methoxy-	72-43-5
Methyl bromide	Methane, bromo-	74-83-9
Methyl chloride	Methane, chloro-	74-87-3
Methylchlorocarbonate	Carbonchloric acid, methyl ester	78-22-1
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6
3-Methylcyclopentene	Benz[1]cyclopentene, 1,2-dihydro-3-methyl-	66-49-5
4-Methylenbis(2-chloroaniline)	Benzenamine, 4,4'-methylenbis(2-chloro-	101-14-4
Methylene bromide	Methane, dibromo-	74-95-3
Methylene chloride	Methane, dichloro-	75-09-2
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4
Methyl hydrazine	Hydrazine, methyl-	80-34-4
Methyl iodide	Methane, iodo-	74-86-4
Methyl isocyanate	Methane, isocyanato-	624-83-9
2-Methylfurfural	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-82-0
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	86-27-3
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0
Methylthiourea	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thio-	56-04-2
Methylyon C	Apriol[2,3,4]pyrrolo[1,2-a] indole-4,7-dione, 6-amino-6-[[[(aminocarbonyloxy)methyl]-1,1a,2,6,8a,8b-hexahydro-8a-methoxy-5-methyl-1 α R-(1 α phenyl,8 β phenyl,8 α phenyl)]-	50-07-7
MWNG	Guandine, N-methyl-N-nitro-N-nitroso-	70-25-7
Mustard gas	Ethane, U-thio[2-chloro-	505-60-2
Naphthalene	Same	91-20-3
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4
alpha-Naphthylamine	1-Naphthalenamine	134-32-7
beta-Naphthylamine	2-Naphthalenamine	91-59-8
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-86-4
Nickel and compounds N.O.S.	Same	7440-02-0
Nickel carbonyl	Nickel carbonyl, (T-4)	13463-39-3
Nickel cyanide	Same	857-19-7
Nicotine and salts	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	84-11-6
Nitric oxide	Nitrogen oxide NO	10102-43-8
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-8
Nitrobenzene	Benzene, nitro-	98-06-3
Nitrogen dioxide	Nitrogen oxide NO ₂	10102-44-0
Nitrogen mustard and hydrochloride salt	Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt	51-75-2
Nitrogen mustard N-oxide and hydrochloride salt	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide, and hydrochloride salt	126-85-2
Nitroglycerin	1,2,3-Propentriol, trinitrate	56-83-0
p-Nitrophenol	Phenol, 4-nitro-	100-02-7
2-Nitropropane	Propane, 2-nitro-	79-86-9
4-Nitroquinoline 1-oxide	Quinoline, 4-nitro-1-oxide	56-57-5
Nitrosamine, N.O.S.		35578-91-1
N-Nitrosod-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-18-3
N-Nitrosodethanolamine	Ethanol, 2,2'-nitrosodimino-	1118-64-7
N-Nitrosodethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5
N-Nitrosodmethylamine	Methanamine, N-methyl-N-nitroso-	62-75-8
N-Nitroso-N-ethyl urea	Urea, N-ethyl-N-nitroso-	759-73-9
N-Nitrosomethylstyramine	Ethanamine, N-methyl-N-nitroso-	10595-95-8
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	884-83-5
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2
N-Nitrosomethylstyramine	Vinylamine, N-methyl-N-nitroso-	4549-40-0
N-Nitrosomorpholine	Morpholine, N-nitroso-	58-89-2
N-Nitrosomorpholine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	18543-55-8
N-Nitrosopyrrolidine	Piperidine, 1-nitroso-	100-75-4
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-8
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	89-65-8
Octamethylpyrophosphoramide	Diphosphoramide, octamethyl-	152-18-9
Osmium tetroxide	Osmium oxide (OsO ₄)	20616-12-0
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2
Pentachlorobenzene	Benzene, pentachloro-	606-83-6
Pentachlorodibenzop-p-dione		
Pentachlorodibenzofurane		

[Appendix VIII]

APPENDIX VIII.—HAZARDOUS CONSTITUENTS—Continued

Common name	Chemical abstracts name	Chemical abstracts no.
Pentachloroethane	Ethane, pentachloro-	76-01-7
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8
Pentachlorophenol	Phenol, pentachloro-	87-86-5
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	82-44-2
Phenol	Same	106-95-2
Phenylenediamine	Benzenediamine	25265-76-3
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-36-4
Phenylthiourea	Thiourea, phenyl-	103-85-5
Phosgene	Carbonic dichloride	75-44-5
Phosphine	Same	7803-51-2
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2
Phthalic acid esters, N.O.S. ¹		85-44-9
Phthalic anhydride	1,3-benzotetrandione	109-06-8
2-Picoline	Pyridine, 2-methyl-	
Polychlorinated biphenyls N.O.S. ¹		151-50-6
Potassium cyanide	Same	506-61-6
Potassium silver cyanide	Argentate(1-), bis(cyano-Cr), potassium	23950-58-5
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propenyl)-	1120-71-4
1,3-Propene sulfone	1,2-Oxathiolane, 2,2-dioxide	107-10-8
n-Propylamine	1-Propylamine	107-19-7
Propargyl alcohol	2-Propyn-1-ol	78-87-6
Propylene dichloride	Propane, 1,2-dichloro-	75-55-8
1,2-Propyleneimine	Azidine, 2-methyl-	51-52-5
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	110-86-1
Pyridine	Same	50-55-6
Reserphen	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyloxy)-, methyl ester	108-46-3
Resorcinol	1,3-Benzenediol	81-07-2
Saccharin and salts	1,2-Benzothiazol-3(2H)-one, 1,1-dioxide and salts	94-59-7
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	7783-00-8
Selenium dioxide	Selenious acid	7782-49-2
Selenium and compounds, N.O.S. ¹	Selenium	7446-34-6
Selenium sulfide	Same	830-10-4
Selenourea	Same	7440-22-4
Silver and compounds, N.O.S. ¹	Silver	506-64-9
Silver cyanide	Same	83-72-1
Silver (2,4,5-TP)	Propenoic acid, 2-(2,4,5-trichlorophenoxy)-	143-33-9
Sodium cyanide	Same	16883-66-4
Streptozotocin	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	1314-96-1
Strychnine and salts	Same	57-24-9
TCDD	Strychnidin-10-one and salts	1746-01-6
1,2,4,5-Tetrachlorobenzene	Dibenzo(b,e) [1,4]dioxin, 2,3,7,8-tetrachloro-	95-84-3
Tetrachlorodibenzo-p-dioxins	Benzene, 1,2,4,5-tetrachloro-	
Tetrachlorodibenzofurans		
Tetrachloroethane, N.O.S. ¹	Ethane, tetrachloro-, N.O.S.	25322-20-7
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5
Tetrachloroethylene	Ethane, tetrachloro-	127-18-4
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2
Tetraethylthiopyrophosphate	Thiophosphoric acid, tetraethyl ester	3869-24-5
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2
Tetraethylpyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3
Tetranitromethane	Methane, tetranitro-	508-14-8
Thallium and compounds, N.O.S. ¹	Thallium	7440-28-0
Thalic oxide	Thallium (III) oxide	1314-32-5
Thallium (I) acetate	Acetic acid, thallium(1+) salt	563-88-8
Thallium (I) carbonate	Carbonic acid, dithallium(1+) salt	6533-73-9
Thallium (I) chloride	Thallium chloride	7791-12-0
Thallium (I) nitrate	Nitric acid, thallium(1+) salt	10102-45-1
Thallium selenite	Thallium selenide	12039-52-0
Thallium (I) sulfate	Sulfuric acid, thallium salt	10031-59-1
Thioacetamide	Ethanethioamide	62-55-5
Thioanisole	2-Butanone, 3,3-dimethyl-1-(methylthio)-O-[(methylamino)carbonyl] oxime	39196-18-4
Thiomethanol	Methanethiol	74-93-1
Thiophenol	Benzenethiol	108-98-5
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6
Thiourea	Same	62-56-6
Thiram	Thioperoxydicarbonic diamide, Tetramethyl-	137-26-8
Toluene	Benzene, methyl-	108-86-3
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8
2,4-Toluenediamine	1,3-Benzenediamine, 4-methyl-	95-80-7
2,6-Toluenediamine	1,3-Benzenediamine, 2-methyl-	823-40-5
3,4-Toluenediamine	1,2-Benzenediamine, 4-methyl-	496-72-0
Toluene diisocyanate	Benzene, 2,4-diisocyanato-1-methyl-	584-84-9
p-Toluidine	Benzenamine, 4-methyl-	106-49-0
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	836-21-5
Toxaphene	Same	8001-35-2
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5
Trichloroethylene	Ethane, trichloro-	79-01-6
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7
Trichloromethoxyfluoromethane	Methane, trichlorofluoro-	75-69-4
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	83-78-5
Trichloropropene, N.O.S.		
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4
O,O,O-Trinitrophenylphosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1
sym-Trinitrobenzene	Benzene, 1,3,5-trinitro	99-35-4
Tri(1-azidodryl)phosphine sulfide	Azidine, 1,1',1''-phosphorothioisodimetric	52-24-4
Tri(2,3-dibromopropyl)phosphate	1-Propanol, 2, 3-dibromo-, phosphate (3:1)	126-72-7

APPENDIX VIII.—HAZARDOUS CONSTITUENTS—Continued

Common name	Chemical abstracts name	Chemical abstracts No.
Trypan blue	2,7-Naphthalenedisulfonic acid, 3-[(3,3-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxy-, tetrasodium salt	72-57-1
Uracil mustard	2,4(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]	66-75-1
Same as CAS name	Undecamethylenediamine, N,N-bis(2-chlorobenzyl)-, dihydrochloride	2056-25-8
Vanadium pentoxide	Vanadium oxide V_2O_5	1314-62-1
Vinyl chloride	Ethene, chloro-	75-01-4
Warfarin	2 H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-	81-81-2
Zinc cyanide	Same	557-21-1
Zinc phosphide	Zinc phosphide P_2Zn_3	1314-84-7

¹ The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

ANEJO C-4

Appendix IX

Wastes Excluded Under Sections 260.20 and 260.22

Appendix IX—Wastes Excluded Under

§§ 260.20 and 260.22

[Appendix IX added by 49 FR 37070,
September 21, 1984]

TABLE 1.—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description					
Arco Chemical Co.	Miami, FL	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after April 29, 1985.					
Chamberlain-Feather, Inc.	Hot Springs, AR	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1985.	Falconer Glass Indust., Inc.	Falconer, NY	stewater treatment sludges from the filter press and magnetic drum separator (EPA Hazardous Waste No. F006) generated from electroplating operations after July 16, 1985.	Texas Instruments	Dallas, TX
Capitol Products Corp.	Harrisburg, PA	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after September 12, 1985.	Gould, Inc.	Columbus, OH	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.		
Cincinnati Metropolitan Sewer District	Cincinnati, OH	Sluiced bottom ash sludge (approximately 25,000 cubic yards) contained in the South Lagoon on September 13, 1985 which contains EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005.	Imperial Chemical	Salem, IN	Solid resin cakes containing EPA Hazardous Waste No. F002 generated after August 27, 1985, from solvent recovery operations.	United Technologies Automotive, Inc.	Ellettsville, IN
Continental Can Co.	Olympia, WA	Dewatered, wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after September 12, 1985.	Kay-Fries, Inc.	Stoney Point, NY	Biological aeration lagoon sludge and filter press sludge generated after September 21, 1984, which contain EPA Hazardous Waste Nos. F003 and F005 as well as that disposed of in a holding lagoon as of September 12, 1984.	Vermont American Corp.	Newark, OH
Dover Corp., Norris Div.	Tulsa, OK	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from their electroplating operations after April 29, 1985.	Keymark Corp.	Fonda, NY	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from chemical conversion coating of aluminum after November 27, 1985.	Waterloo Industries	Pocahontas, AR
EPA's Mobile Incineration System	Denney Farm Site, McDowell, MO.	Process wastewater, rotary kiln ash, CHEAF media, and other solids (except spent activated carbon) (EPA Hazardous Waste Nos. F020, F022, F023, F026, F027, and F028) generated during the field demonstration of EPA's Mobile	Loxgreen Company, Inc.	Hayti, MO	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1985.	Watervliet Arsenal	Watervliet, NY
					Metropolitan Sewer District of Greater Cincinnati	Cincinnati, OH	Sluiced bottom ash sludge (approximately 25,000 cubic yards) contained in the North Lagoon on September 21, 1984 which contains EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005.
					Monroe Auto Equipment	Paragould, AR	Wastewater treatment sludge (EPA Hazardous Waste No. F005) generated from electroplating operations after vacuum filtration after November 27, 1985. The exclusion does not apply to the sludge contained in the on-site impoundment.
					Siegel, Robert, Inc.	St. Louis, MO	Wastewater treatment (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.

[Appendix IX]

[Table 1 amended by 50 FR 30274, July 25, 1985; 50 FR 34692, August 27, 1985; 50 FR 37370, September 13, 1985; 50 FR 48910, November 27, 1985; 51 FR 1254, January 10, 1986; 51 FR 15889, April 29, 1986; 51 FR 25701, July 16, 1986; 51 FR 25891, July 17, 1986; corrected by 51 FR 27038, July 29, 1986; amended by 51 FR 32460, September 12, 1986]

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES

Facility	Address	Waste description
Amoco Oil Company	Wood River, IL	(a) Wastes excluded from non-specific sources: 150 million gallons of DAF float from petroleum refining contained in four surge ponds after treatment with the Chemfix stabilization process. This exclusion applies to the 150 million gallons of waste after chemical stabilization as long as the mixing ratios of the reagent with the waste are monitored continuously and do not vary outside of the limits presented in the demonstration samples. One grab sample is taken each hour from each treatment unit, composited, and EP toxicity tests performed on each sample. If the levels of lead or total chromium exceed 0.5 ppm in the EP extract, then the waste that was processed during the composting period is considered hazardous; the treatment residue shall be pumped into bermed cells to ensure that the waste is identifiable in the event that removal is necessary.
LPC Chemical	Orrington, ME	Brine purification muds and wastewater treatment sludges generated after August 27, 1985 from their chloralkali manufacturing operations (EPA Hazardous Waste Nos. K071 and K106) that have been batch tested for mercury using the EPA toxicity procedures and have been found to contain less than 0.05 ppm mercury in the EP extract. Brine purification muds and wastewater treatment sludges that exceed this level will be considered a hazardous waste.
Mearl Corp.	Peekskill, NY	Wastewater treatment sludge (EPA Hazardous Waste Nos. K006 and K007) generated from the production of chrome oxide green and iron blue pigments after November 27, 1985.

TABLE 2.—WASTES EXCLUDED FROM SPECIFIC SOURCES—Contd.

Facility	Address	Waste description
Stauffer Chemical Co.	Axis, AL	Brine purification muds generated from their chloralkali manufacturing operations (EPA Hazardous Waste No. K071) and disposed of in brine mud pond HWTF: 5 EP-201
Stauffer Chemical Co.	St. Gabriel, LA	Brine purification muds, which have been washed and vacuum filtered, generated after August 27, 1985 from their chloralkali manufacturing operations (EPA Hazardous Waste No. K071) that have been batch tested for mercury using the EP toxicity procedure and have been found to contain less than 0.05 ppm in mercury in the EP extract. Brine purification muds that exceed this level will be considered a hazardous waste.

[Table 2 added by 50 FR 34692, August 27, 1985; amended by 50 FR 37370, September 13, 1985; 50 FR 48910, November 27, 1985; corrected by 51 FR 27038, July 29, 1986]

TABLE 3.—WASTES EXCLUDED FROM COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES, CONTAINER RESIDUES, AND SOIL RESIDUES THEREOF

Facility	Address	Waste description
Union Carbide Corp.	Taft, LA	Contaminated soil (approximately 11,000 cubic yards), which contains arsenic in concentrations of less than 2 ppm

ANEJO C-5
Appendix X
Methods of Analysis for
Chlorinated Dibenzo-p-Dioxins and Dibenzofurans^{1 2 3 4}

Appendix X—Method of Analysis for Chlorinated dibenzo-p-dioxins and dibenzofurans^{1,2,3,4}

[Appendix X added by 50 FR 1999, January 14, 1985]

¹ This method is appropriate for the analysis of tetra-, penta-, and hexachlorinated dibenzo-p-dioxins and dibenzofurans.

² Analytical protocol for determination of TCDDs in phenolic chemical wastes and soil samples obtained from the proximity of chemical dumps. T.O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

³ Analytical protocol for determination of chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in river water. T.O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

⁴ In general, the techniques that should be used to handle these materials are those which are followed for radioactive or infectious laboratory materials. Assistance in evaluating laboratory practices may be obtained from industrial hygienists and persons specializing in safe laboratory practices. Typical infectious waste incinerators are probably not satisfactory devices for disposal of materials highly contaminated with CDDs or CDFs. Safety instructions are outlined in EPA Test Method 613(4.0).

See also: 1) "Program for monitoring potential contamination in the laboratory following the handling and analysis of chlorinated dibenzo-p-dioxins and dibenzofurans" by F.D. Hillemann, et al. In: Human and Environmental Risks of Chlorinated Dioxins and Related Compounds.

Method 8280

1. Scope and Application

1.1 This method measures the concentration of chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in chemical wastes including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soils.

1.2 The sensitivity of this method is dependent upon the level of interferences.

1.3 This method is recommended for use only by analysts experienced with residue analysis and skilled in mass spectral analytical techniques.

1.4 Because of the extreme toxicity of these compounds, the analyst must take necessary precautions to prevent exposure to himself, or to others, of materials known or believed to contain CDDs or CDFs.

2. Summary of the Method

2.1 This method is an analytical extraction cleanup procedure, and capillary column gas chromatograph-low resolution mass spectrometry method, using capillary column GC/MS conditions and internal standard techniques, which allow for the measurement of PCDDs and PCDFs in the extract.

2.2 If interferences are encountered, the method provides selected general purpose cleanup procedures to aid the analyst in their elimination.

3. Interferences

3.1 Solvents, reagents, glassware, and other sample processing hardware may yield discrete artifacts and/or elevated baselines causing misinterpretation of gas chromatograms. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by running method blanks. Specific selection of reagents and purification of solvents by distillation in all-glass systems may be required.

3.2 Interferences co-extracted from the samples will vary considerably from source to source, depending upon the diversity of the industry being sampled. PCDD is often associated with other interfering chlorinated compounds such as PCB's which may be at concentrations several orders of magnitude higher than that of PCDD. While general cleanup techniques are provided as part of this method, unique samples may require additional cleanup approaches to achieve the sensitivity stated in Table 1.

3.3 The other isomers of tetrachlorodibenzo-p-dioxin may interfere with the measurement of 2,3,7,8-TCDD. Capillary column gas chromatography is required to resolve those isomers that yield virtually identical mass fragmentation patterns.

4. Apparatus and Materials

4.1 Sampling equipment for discrete or composite sampling.

4.1.1 Grab sample bottle—amber glass, 1-liter or 1-quart volume. French or Boston Round design is recommended. The container must be washed and solvent rinsed before use to minimize interferences.

4.1.2 Bottle caps—threaded to screw on to the sample bottles. Caps must be lined with Teflon. Solvent washed foil, used with the shiny side towards the sample, may be substituted for the Teflon if sample is not corrosive.

4.1.3 Compositing equipment—automatic or manual compositing system. No tygon or rubber tubing may be used, and the system must incorporate glass sample containers for the collection of a minimum of 250 ml. Sample containers must be kept refrigerated after sampling.

R.E. Tucker, et al., eds., Plenum Publishing Corp., 1983. 2) Safety procedures outlined in EPA Method 613, Federal Register volume 44, No. 233, December 8, 1979.

4.2 Water bath: -- heated, with circulating cover, capable of temperature control $\pm 2^\circ\text{C}$. The bath should be used in a hood.

4.3 Gas chromatograph/mass spectrometer data system.

4.3.1 Gas chromatograph. An analytical system with a temperature-programmable gas chromatograph and all required accessories including syringes, analytical columns, and gases.

4.3.2 Column: SP-2250 coated on a 30 m long $\times$ 0.25 mm I.D. glass column (Supelco No. 2-3714 or equivalent). Glass capillary column conditions: Helium carrier gas at 30 cm/sec linear velocity run splitless. Column temperature is 210°C .

4.3.3 Mass spectrometer. Capable of scanning from 35 to 450 amu every 1 sec or less, utilizing 70 volts (nominal) electron energy in the electron impact ionization mode and producing a mass spectrum which meets all the criteria in Table 2 when 50 ng of decafluorotriphenyl-phosphine (DFTPP) is injected through the GC inlet. The system must also be capable of selected ion monitoring (SIM) for at least 4 ions simultaneously, with a cycle time of 1 sec or less. Minimum integration time for SIM is 100 ms. Selected ion monitoring is verified by injecting .015 ng of TCDD ^{13}C to give a minimum signal to noise ratio of 5 to 1 at mass 328.

4.3.4 GC/MS interface: Any GC-to-MS interface that gives acceptable calibration points at 50 ng per injection for each compound of interest and achieves acceptable tuning performance criteria (see Sections 6.1-6.3) may be used. GC-to-MS interfaces constructed of all glass or glass-lined materials are recommended. Glass can be deactivated by silanizing with dichlorodimethylsilane. The interface must be capable of transporting at least 10 ng of the components of interest from the GC to the MS.

4.3.5 Data system: A computer system must be interfaced to the mass spectrometer. The system must allow the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program. The computer must have software that can search any GC/MS data file for ions of a specific mass and that can plot such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be able to integrate the abundance, in any EICP, between specified time or scan number limits.

4.4 Pipettes-Disposable, Pasteur, 150 mm long $\times$ 5 mm ID (Fisher Scientific Co. No. 13-678-6A or equivalent).

4.5 Flint glass bottle (Teflon-lined screw cap).

4.6 Reacti-vial (silanized) (Pierce Chemical Co.).

5. Reagents

5.1 Potassium hydroxide-(ACS), 2% in distilled water.

5.2 Sulfuric acid-(ACS), concentrated.

5.3 Methylene chloride, hexane, benzene, petroleum ether, methanol, tetradecane-peptide quality or equivalent.

5.4 Prepare stock standard solutions of TCDD and ^{13}C -TCDD (molecular weight 328) in a glovebox. The stock solutions are stored in a glovebox, and checked frequently for signs of degradation or evaporation, especially just prior to the preparation of working standards.

5.5 Alumina-basic, Woelm, 80/200 mesh. Before use activate overnight at 600°C , cool to room temperature in a desiccator.

5.6 Prepurified nitrogen gas.

6. Calibration

6.1 Before using any cleanup procedure, the analyst must process a series of calibration standards through the procedure to validate elution patterns and the absence of interferences from reagents.

6.2 Prepare GC/MS calibration standards for the internal standard technique that will allow for measurement of relative response factors of at least three CDD/CDF ratios. Thus, for TCDDs, at least three TCDD ^{13}C -TCDD and TCDF ^{13}C -TCDF must be determined. The ^{13}C -TCDD/CDF concentration in the standard should be fixed and selected to yield a reproducible response at the most sensitive setting of the mass spectrometer. Response factors for PCDD and HxCDD may be determined by measuring the response of the tetrachloro-labelled compounds relative to that of the unlabelled 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PCDD or 1,2,3,4,7,8-HxCDD, which are commercially available.*

6.3 Assemble the necessary GC/MS apparatus and establish operating parameters equivalent to those indicated in Section 11.1 of this method. Calibrate the GC/MS system according to Eichelberger et al. (1975) by the use of decafluorotriphenyl-phosphine (DFTPP). By injecting calibration standards, establish the response factors for CDDs vs. ^{13}C -TCDD, and for CDFs vs. ^{13}C -TCDF. The detection limit provided in Table 1 should be verified by injecting .015 ng of ^{13}C -TCDD which should give a minimum signal to noise ratio of 5 to 1 at mass 328.

7. Quality Control

7.1 Before processing any samples, the analyst should demonstrate through the analysis of a distilled water method blank, that all glassware and reagents are interference-free. Each time a set of samples is extracted, or there is a change in reagents, a method blank should be processed as a safeguard against laboratory contamination.

7.2 Standard quality assurance practices must be used with this method. Field replicates must be collected to measure the precision of the sampling technique. Laboratory replicates must be analyzed to establish the precision of the analysis. Fortified samples must be analyzed to establish the accuracy of the analysis.

8. Sample Collection, Preservation, and Handling

8.1 Grab and composite samples must be collected in glass containers. Conventional sampling practices should be followed, except that the bottle must not be prewashed with sample before collection. Composite samples should be collected in glass containers in accordance with the requirements of the RCRA program. Sampling equipment must be free of tygon and other potential sources of contamination.

* ^{13}C -labelled 1,2,3,7,8-TCDD and 1,2,3,7,8-TCDF are available from K.O.R. Isotopes, and Cambridge Isotopes, Inc., Cambridge, MA. Proper standardization requires the use of a specific labelled isomer for each congener to be determined. However, the only labelled isomers readily available are ^{13}C -1,2,3,7,8-TCDD and ^{13}C -1,2,3,7,8-TCDF. This method therefore uses these isomers as surrogates for the CDDs and CDFs. When other labelled CDDs and CDFs are available, their use will be required.

8.2 The samples must be iced or refrigerated from the time of collection, until extraction. Chemical preservatives should not be used in the field unless more than 24 hours will elapse before delivery to the laboratory. If an aqueous sample is taken and the sample will not be extracted within 48 hours of collection, the sample should be adjusted to a pH range of 6.0-8.0 with sodium hydroxide or sulfuric acid.

8.3 All samples must be extracted within 7 days and completely analyzed within 30 days of collection.

9. Extraction and Cleanup Procedures

9.1 Use an aliquot of 1-10 g sample of the chemical waste or soil to be analyzed. Soils should be dried using a stream of prepurified nitrogen and pulverized in a ball-mill or similar device. Perform this operation in a clear area with proper hood space. Transfer the sample to a tared 125 ml flint glass bottle (Teflon-lined screw cap) and determine the weight of the sample. Add an appropriate quantity of ^{13}C -labelled 2,3,7,8-TCDD (adjust the quantity according to the required minimum detectable concentration), which is employed as an internal standard.

9.2 Extraction

9.2.1 Extract chemical waste samples by adding 10 ml methanol, 40 ml petroleum ether, 50 ml doubly distilled water, and then shaking the mixture for 2 minutes. Tars should be completely dissolved in any of the recommended neat solvents. Activated carbon samples must be extracted with benzene using method 3540 in SW-846 (Test Methods for Evaluating Solid Waste—Physical/Chemical Methods, available from G.P.O. Stock #055-022-61001-2). Quantitatively transfer the organic extract or dissolved sample to a clean 250 ml flint glass bottle (Teflon lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.2.2 Extract soil samples by adding 40 ml of petroleum ether to the sample, and then shaking for 20 minutes. Quantitatively transfer the organic extract to a clean 250 ml flint glass bottle (Teflon-lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.3 Wash the organic layer with 50 ml of 20% aqueous potassium hydroxide by shaking for 10 minutes and then remove and discard the aqueous layer.

9.4 Wash the organic layer with 50 ml of doubly distilled water by shaking for 2 minutes, and discard the aqueous layer.

9.5 Cautiously add 50 ml concentrated sulfuric acid and shake for 10 minutes. Allow the mixture to stand until layers separate (approximately 10 minutes), and remove and discard the acid layer. Repeat acid washing until no color is visible in the acid layer.

9.6 Add 50 ml of doubly distilled water to the organic extract and shake for 2 minutes. Remove and discard the aqueous layer and dry the organic layer by adding 10g of anhydrous sodium sulfate.

9.7 Concentrate the extract to incipient dryness by heating in a 55°C water bath and simultaneously flowing a stream of prepurified nitrogen over the extract. Quantitatively transfer the residue to an alumina microcolumn fabricated as follows:

9.7.1 Cut off the top section of a 10 ml disposable Pyrex pipette at the 4.0 ml mark and insert a plug of silanized glass wool into the tip of the lower portion of the pipette.

9.7.2 Add 2.8g of Woelm basic alumina (previously activated at 600° C overnight and then cooled to room temperature in a desiccator just prior to use).

9.7.3 Transfer sample extract with a small volume of methylene chloride.

9.8 Elute the microcolumn with 10 ml of 3% methylene chloride-in-hexane followed by 15 ml of 20% methylene chloride-in-hexane and discard these effluents. Elute the column with 15 ml of 50% methylene chloride-in-hexane and concentrate this effluent (55° C water bath, stream of prepurified nitrogen) to about 0.3-0.5 ml.

9.9 Quantitatively transfer the residue (using methylene chloride to rinse the container) to a silanized Reacti-Vial (Pierce Chemical Co.). Evaporate, using a stream of prepurified nitrogen, almost to dryness, rinse the walls of the vessel with approximately 0.5 ml methylene chloride, evaporate just to dryness, and tightly cap the vial. Store the vial at 5° C until analysis, at which time the sample is reconstituted by the addition of tridecane.

9.10 Approximately 1 hour before GC-MS (HRC-IRMS) analysis, dilute the residue in the micro-reaction vessel with an appropriate quantity of tridecane. Gently swirl the tridecane on the lower portion of the vessel to ensure dissolution of the CDDs and CDFs. Analyze a sample by GC/EC to provide insight into the complexity of the problem and to determine the manner in which the mass spectrometer should be used. Inject an appropriate aliquot of the sample into the GC-MS instrument, using a syringe.

9.11 If, upon preliminary GC-MS analysis, the sample appears to contain interfering substances which obscure the analyses for CDDs and CDFs, high performance liquid chromatographic (HPLC) cleanup of the extract is accomplished, prior to further GC-MS analysis.

10. HPLC Cleanup Procedure*

10.1 Place approximately 2 ml of hexane in a 50 ml flint glass sample bottle fitted with a Teflon-lined cap.

10.2 At the appropriate retention time, position sample bottle to collect the required fraction.

10.3 Add 2 ml of 5% (w/v) sodium carbonate to the sample fraction collected, and shake for one minute.

10.4 Quantitatively remove the hexane layer (top layer) and transfer to a micro-reaction vessel.

10.5 Concentrate the fraction to dryness and retain for further analysis.

11. GC/MS Analysis

11.1 The following column conditions are recommended: Glass capillary column conditions: SP-2250 coated on a 30 m long x 0.25 mm I.D. glass column (Supelco No. 2-3714, or equivalent) with helium carrier gas at 30 cm/sec linear velocity; run splitless. Column temperature is 210° C. Under these conditions the retention time for TCDDs is about 9.5 minutes. Calibrate the system daily with, a minimum, three injections of standard mixtures.

11.2 Calculate response factors for standards relative to ²¹Cl-TCDD/F (see Section 12).

11.3 Analyze samples with selected ion monitoring of at least two ions from Table 3. Proof of the presence of CDD or CDF exists if the following conditions are met:

11.3.1 The retention time of the peak in the sample must match that in the standard, within the performance specifications of the analytical system.

11.3.2 The ratio of ions must agree within 10% with that of the standard.

11.3.3 The retention time of the peak maximum for the ions of interest must exactly match that of the peak.

11.4 Quantitate the CDD and CDF peaks from the response relative to the ²¹Cl-TCDD/F internal standards. Recovery of the internal standard should be greater than 50 percent.

11.5 If a response is obtained for the appropriate set of ions, but is outside the expected ratio, a co-eluting impurity may be suspected. In this case, another set of ions characteristic of the CDD/CDF molecules should be analyzed. For TCDD a good choice of ions is m/e 257 and m/e 259. For TCDF a good choice of ions is m/e 241 and 243. These ions are useful in characterizing the molecular structure to TCDD or TCDF. For analysis of TCDD good analytical technique would require using all four ions, m/e 257, 320, 322, and 328, to verify detection and signal to noise ratio of 5 to 1. Suspected impurities such as DDE, DDD, or PCB residues can be confirmed by checking for their major fragments. These materials can be removed by the cleanup columns. Failure to meet criteria should be explained in the report, or the sample reanalyzed.

11.6 If broad background interference restricts the sensitivity of the GC/MS analysis, the analyst should employ cleanup procedures and reanalyze by GC/MS. See section 10.0.

11.7 In those circumstances where these procedures do not yield a definitive conclusion, the use of high resolution mass spectrometry is suggested.

12. Calculations

12.1 Determine the concentration of individual compounds according to the formula:

$$\text{Concentration, } \mu\text{g/gm} = \frac{A \times A_s}{G \times A_s \times R_s}$$

where:

A_s = μg of internal standard added to the sample¹

G = gm of sample extracted

A_s = area of characteristic ion of the compound being quantified.

A_s = area of characteristic ion of the internal standard

R_s = response factor²

Response factors are calculated using data obtained from the analysis of standards according to the formula:

$$R_f = \frac{A_s \times C_s}{A_s \times C_s}$$

where:

C_s = concentration of the internal standard

C_s = concentration of the standard compound

12.2 Report results in micrograms per gram without correction for recovery data. When duplicate and spiked samples are analyzed, all data obtained should be reported.

12.3 Accuracy and Precision. No data are available at this time.

TABLE 1.—GAS CHROMATOGRAPHY OF TCDD

Column	Retention time (min.)	Detection limit ($\mu\text{g/kg}$)
Glass capillary	9.5	0.003

¹ Detection limit for liquid samples is 0.003 $\mu\text{g/L}$. This is calculated from the minimum detectable GC response being equal to five times the GC background noise assuming a 1 ml effective final volume of the 1 liter sample extract, and a GC injection of 5 microliters. Detection levels apply to both electron capture and GC/MS detection. For further details see 44 FR 58526 (December 3, 1979).

TABLE 2.—DFTPP KEY IONS AND ION ABUNDANCE CRITERIA¹

Mass	Ion abundance criteria
51	30-60% of mass 196
66	Less than 2% of mass 66
70	Less than 2% of mass 66
127	40-60% of mass 196
167	Less than 1% of mass 196
196	Base peak, 100% relative abundance
199	5-9% of mass 196
276	10-30% of mass 196
365	Greater than 1% of mass 196
441	Present but less than mass 442
442	Greater than 40% of mass 196
443	17-23% of mass 442

¹ J. W. Eichberger, L. E. Harris, and W. L. Budd, 1975. Reference compound to calibrate ion abundance measurement in gas chromatography-mass spectrometry. *Analytical Chemistry* 47:945.

² The proper amount of standard to be used is determined from the calibration curve (See Section 6.0).

³ If standards for PCDDs/Fs and HxCDDs/Fs are not available, response factors for ions derived from these congeners are calculated relative to ²¹Cl-TCDD/F. The analyst may use response factors for 1,2,3,4- or 2,3,7,8-TCDD, 1,2,3,4,7-PeCDD, or 1,2,3,4,7,8-HxCDD for quantitation of TCDDs/Fs, PeCDDs/Fs and HxCDDs/Fs, respectively. Implicit in this requirement is the assumption that the same response is obtained from PCDDs/Fs containing the same numbers of chlorine atoms.

* For cleanup, see also method #8320 or #8330, SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (1982).

TABLE 3.—LIST OF ACCURATE MASSES MONITORED USING GC SELECTED-ION MONITORING. LOW RESOLUTION, MASS SPECTROMETRY FOR SIMULTANEOUS DETERMINATION OF TETRA-, PENTA-, AND HEXACHLORINATED DIBENZO-*p*-DIOXINS AND DIBENZOFURANS

Class of chlorinated dibenzodioxin or dibenzofuran	Number of chlorine substituents (x)	Monitored m/z for dibenzodioxins C ₁₂ H _{8-x} O ₂ Cl _x	Monitored m/z for dibenzofurans C ₁₂ H _{7-x} OCl _x	Approximate theoretical ratio expected on basis of isotopic abundance
Tetra	4	* 319.867	* 303.802	0.74
		321.894	305.803	1.00
		* 327.885	* 311.894	0.21
		* 256.933		0.20
Penta	5	* 353.856	* 337.863	0.57
		355.855	339.866	1.00
Hexa	6	389.816	373.821	1.00
		391.813 ^a	375.818	0.87

* Molecular ion peak

^a Cl—labelled standard peaks

ions which can be monitored in TCDD analyses for confirmation purposes

ANEJO C-6
40 CFR Parte 122
National Pollutant Discharge Elimination System
(NPDES)

ENVIRONMENTAL PROTECTION AGENCY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT REGULATIONS

(40 CFR 122; 45 FR 33418, May 19, 1980, Effective July 18, 1980; Amended as shown in Volume 40, Code of Federal Regulations, Revised as of July 1, 1981; Amended by 46 FR 35091, 35249, July 7, 1981; 46 FR 36703, July 15, 1981; 46 FR 43160, August 27, 1981; 46 FR 55113, November 6, 1981; 47 FR 4996, February 3, 1982; 47 FR 8306, February 25, 1982; 47 FR 15306, April 8, 1982; 47 FR 24920, June 8, 1982; 47 FR 27533, June 24, 1982; 47 FR 32129, 32369, July 26, 1982, Effective January 23, 1982; 47 FR 41563, September 21, 1982; 48 FR 2511, January 19, 1983; 48 FR 2939, January 21, 1983; 48 FR 3981, January 28, 1983; Revised by 48 FR 14153, April 1, 1983; Amended by 48 FR 39619, September 1, 1983; 49 FR 25981, June 25, 1984; 49 FR 31842, August 8, 1984; 49 FR 37009, September 20, 1984; 49 FR 38046, September 26, 1984; 50 FR 4513, January 31, 1985; Corrected by 50 FR 6940, February 19, 1985; 50 FR 7912, February 27, 1985; 50 FR 35203, August 29, 1985; 51 FR 20430, June 4, 1986)

[Editor's note: The modified information requirements contained in §§122.29(c)(5), 122.41(l)(1), 122.42(a), 122.45(b), and 122.62(a), have not been approved by the Office of Management and Budget (OMB) and they are not effective until OMB has approved them.

Form 2c is published at the end of Part 125.]

PART 122 — NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Subpart A — Definitions and General Program Requirements

Sec.

- 122.1 Purpose and Scope.
- 122.2 Definitions.
- 122.3 Exclusions.
- 122.4 Prohibitions (applicable to State NPDES Programs, see §123.25).
- 122.5 Effect of a permit.
- 122.6 Continuation of expiring permits.
- 122.7 Confidentiality of information.

Subpart B—Permit Application and Special NPDES Program Requirements

- 122.21 Application for a permit (applicable to State programs, see § 123.25).

- 122.22 Signatories to permit applications and reports (applicable to State programs, see § 123.25).
- 122.23 Concentrated animal feeding operations (applicable to State NPDES programs, see § 123.25).
- 122.24 Concentrated aquatic animal production facilities (applicable to State NPDES programs, see § 123.25).
- 122.25 Aquaculture projects (applicable to State NPDES programs, see § 123.25).
- 122.26 Separate storm sewers (applicable to State NPDES programs, see § 123.25).
- 122.27 Silvicultural activities (applicable to State NPDES programs, see § 123.25).
- 122.28 General permits (applicable to State NPDES programs, see § 123.25).
- 122.29 New sources and new discharges.

Subpart C—Permit Conditions

- 122.41 Conditions applicable to all permits (applicable to State programs, see §123.25).
- 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25).
- 122.43 Establishing permit conditions (applicable to State programs, see § 123.25).
- 122.44 Establishing limitations, standards and other permit conditions (applicable to State NPDES programs, see § 123.25).
- 122.45 Calculating NPDES permit conditions (applicable to State NPDES programs, see § 123.25).

- 122.46 Duration of permits (applicable to State programs, see § 123.25).
- 122.47 Schedules of compliance.
- 122.48 Requirements for recording and reporting of monitoring results (applicable to State programs, see § 123.25).
- 122.49 Considerations under Federal law.
- 122.50 Disposal of pollutants into wells into publicly owned treatment works or by land application (applicable to State NPDES programs, see § 123.25).

Subpart D—Transfer, Modification, Revocation and Relevance, and Termination of Permits

- 122.61 Transfer of permits (applicable to State programs, see § 123.25).
- 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see § 123.25).
- 122.63 Minor modifications of permits.
- 122.64 Termination of permits (applicable to State programs, see § 123.25).

APPENDIX A—NPDES PRIMARY INDUSTRY CATEGORIES

APPENDIX B—CRITERIA FOR DETERMINING A CONCENTRATED ANIMAL FEEDING OPER- ATION (§ 122.23)

APPENDIX C—CRITERIA FOR DETERMINING A CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY (122.24)

APPENDIX D—NPDES PERMIT APPLICATION TESTING REQUIREMENTS (122.21)

AUTHORITY: The Clean Water Act, 33
U.S.C 1251 *et seq.*

Subpart A—Definitions and General Program Requirements

§ 122.1 Purpose and scope.

(a) *Coverage.* (1) These regulations contain provisions for the *National Pollutant Discharge Elimination System* (NPDES) Program under sections 318, 402, and 405(a) of the *Clean Water Act* (CWA) (Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 U.S.C. 1251 *et seq.*).

(2) These regulations cover basic EPA permitting requirements (Part 122), what a State must do to obtain approval to operate its program in lieu of a Federal program and minimum requirements for administering the approved State program (Part 123), and procedures for EPA processing of permit applications and appeals (Part 124). Part 124 is also applicable to other EPA permitting programs, as detailed in that Part.

(b) *Scope of the NPDES permit requirement.* (1) The NPDES program requires permits for the discharge of "pollutants" from any "point source" into "waters of the United States." The terms "pollutant", "point source" and "waters of the United States" are defined in § 122.2.

(2) The following are point sources requiring NPDES permits for discharges:

- (i) Concentrated animal feeding operations as defined in § 122.23;
- (ii) Concentrated aquatic animal production facilities as defined in § 122.24;
- (iii) Discharges into aquaculture projects as set forth in § 122.25;
- (iv) Discharges from separate storm sewers as set forth in § 122.26; and
- (v) Silvicultural point sources as defined in § 122.27.

(c) *State programs.* Certain requirements set forth in Parts 122 and 124 are made applicable to approved State programs by reference in Part 123. These references are set forth in § 123.25. If a section or paragraph of Parts 122 or 124 is applicable to States, through reference in § 123.25, that fact is signaled by the following words at the end of the section or paragraph heading: (applicable to State programs, see § 123.25). If these words are absent, the section (or paragraph) applies only to EPA administered permits.

(d) *Relation to other requirements.* (1) *Permit application forms.* Applicants for EPA issued permits must

submit their applications on EPA permit application forms when available. Most of the information requested on these application forms is required by these regulations. The basic information required in the general form (Form 1) and the additional information required for NPDES applications (Forms 2a-d) are listed in § 122.21. Applicants for State issued permits must use State forms which must require at a minimum the information listed in these sections.

(2) *Technical regulations.* The NPDES permit program has separate additional regulations that contain technical requirements. These separate regulations are used by permit issuing authorities to determine what requirements must be placed in permits if they are issued. These separate regulations are located at 40 CFR Parts 125, 129, 133, 136 and 40 CFR Subchapter N (Parts 400-460).

(e) *Public participation.* This rule establishes the requirements for public participation in EPA and State permit issuance and enforcement and related variance proceedings, and in the approval of State NPDES programs. These requirements carry out the purposes of the public participation requirements of 40 CFR Part 25 (Public Participation), and supersede the requirements of that Part as they apply to actions covered under Parts 122, 123, and 124.

(f) *State authorities.* Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

(g) *Authority.* (1) Section 301(a) of CWA provides that "Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful."

(2) Section 402(a)(1) of CWA provides in part that "The Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, * * * upon condition that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act."

(3) Section 318(a) of CWA provides that "The Administrator is author-

ized, after public hearings, to permit the discharge of a specific pollutant or pollutants under controlled conditions associated with an approved aquaculture project under Federal or State supervision pursuant to section 402 of this Act."

(4) Section 405 of CWA provides, in part, that "Where the disposal of sewage sludge resulting from the operation of a treatment works as defined in section 212 of this Act (including the removal of in-place sewage sludge from one location and its deposit at another location) would result in any pollutant from such sewage sludge entering the navigable waters, such disposal is prohibited except in accordance with a permit issued by the Administrator under section 402 of this Act."

(5) Sections 402(b), 318 (b) and (c), and 405(c) of CWA authorize EPA approval of State permit programs for discharges from point sources, discharges to aquaculture projects, and disposal of sewage sludge.

(6) Section 304(i) of CWA provides that the Administrator shall promulgate guidelines establishing uniform application forms and other minimum requirements for the acquisition of information from dischargers in approved States and establishing minimum procedural and other elements of approved State NPDES programs.

(7) Section 501(a) of CWA provides that "The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act."

(8) Section 101(e) of CWA provides that "Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes."

§ 122.2 Definitions

The following definitions apply to Parts 122, 123, and 124. Terms not defined in this section have the meaning given by CWA. When a defined term appears in a definition, the defined term is sometimes placed in quotation marks as an aid to readers.

[Sec. 122.2]

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all State, interstate, and Federal standards and limitations to which a "discharge" or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," and pretreatment standards under sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions.

Approved program or approved State means a State or interstate program which has been approved or authorized by EPA under Part 123.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

BMPs means "best management practices."

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 *et seq.*

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily discharge means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Direct discharge means the "discharge of a pollutant."

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no "approved State program," and there is an EPA administered program, "Director" means the Regional Administrator. When there is an approved State program, "Director" normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see § 123.1.) In such cases, the term "Director" means the Regional Administrator and not the State Director.

Discharge when used without qualification means the "discharge of a pollutant."

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharge."

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

DMR means "Discharge Monitoring Report."

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5, is not a "draft permit." A "proposed permit" is not a "draft permit."

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States," the waters of the "contiguous zone," or the ocean.

[Sec. 122.2]

Effluent limitations guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise "effluent limitations."

Environmental Protection Agency ("EPA") means the United States Environmental Protection Agency.

EPA means the United States Environmental Protection Agency.

Facility or activity means any NPDES "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

General permit means an NPDES "permit" issued under § 122.28 authorizing a category of discharges under the CWA within a geographical area.

Hazardous substance means any substance designated under 40 CFR Part 116 pursuant to section 311 of CWA.

Indirect discharger means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

Interstate agency means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the CWA and regulations.

Major facility means any NPDES "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of CWA.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402,

318, and 405 of CWA. The term includes an "approved program."

"New discharger" means any building structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants;"

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source;" and

(d) Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR 125.122(a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

["New discharger" revised by 48 FR 39619, September 1, 1983]

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

(a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to

such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this Part and Parts 123 and 124. "Permit" includes an NPDES "general permit" (§ 122.28). Permit does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point source means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

["Point source" corrected by 50 FR 6940, February 19, 1985]

Pollutant means dredged spoil, solid-waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

[Sec. 122.2]

[*Note.*—Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).]

POTW means "publicly owned treatment works."

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in Appendix A of Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW."

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Proposed permit means a State NPDES "permit" prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit."

Publicly owned treatment works ("POTW") means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality." This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Recommencing discharger means a source which recommences discharge after terminating operations.

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included

in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations.

Secondary industry category means any industry category which is not a "primary industry category."

Secretary means the Secretary of the Army, acting through the Chief of Engineers.

Sewage from vessels means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under section 312 of CWA, except that with respect to commercial vessels on the Great Lakes this term includes graywater. For the purposes of this definition, "graywater" means galley, bath, and shower water.

Sewage sludge means the solids, residues, and precipitate separated from or created in sewage by the unit processes of a "publicly owned treatment works." "Sewage" as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or otherwise enter a publicly owned treatment works.

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands.

State Director means the chief administrative officer of any State or interstate agency operating an "approved program," or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

State/EPA Agreement means an agreement between the Regional Administrator and the State which

coordinates EPA and State activities, responsibilities and programs including those under the CWA programs.

Total dissolved solids means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

Toxic pollutant means any pollutant listed as toxic under section 307(a)(1) of CWA.

Variance means any mechanism or provision under sections 301 or 316 of CWA or under 40 CFR Part 125, or in the applicable "effluent limitations guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of CWA.

Waters of the United States or waters of the U.S. means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate "wetlands;"

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a)-(d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)-(f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. [See Note 1 of this section.]

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

[Note 1.—At 45 FR 48620, July 21, 1980, the Environmental Protection Agency suspended until further notice in § 122.2, the last sentence, beginning "This exclusion applies" in the definition of "Waters of the United States." This revision continues that suspension.]

[Note 1 corrected by 50 FR 6940, February 19, 1985]

[Note 2. — [Deleted]]

[Note 2 deleted by 50 FR 6940, February 19, 1985]

§ 122.3 Exclusions.

The following discharges do not require NPDES permits:

(a) Any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel. This exclusion does not apply to rubbish, trash, garbage, or other such materials discharged overboard; nor to other discharges when the vessel is operating in a capacity other than as a means of transportation such as when used as an

energy or mining facility, a storage facility or a seafood processing facility, or when secured to a storage facility or a seafood processing facility, or when secured to the bed of the ocean, contiguous zone or waters of the United States for the purpose of mineral or oil exploration or development.

(b) Discharges of dredged or fill material into waters of the United States which are regulated under section 404 of CWA.

(c) The introduction of sewage, industrial wastes or other pollutants into publicly owned treatment works by indirect dischargers. Plans or agreements to switch to this method of disposal in the future do not relieve dischargers of the obligation to have and comply with permits until all discharges of pollutants to waters of the United States are eliminated. (See also § 122.47(b)). This exclusion does not apply to the introduction of pollutants to privately owned treatment works or to other discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other party not leading to treatment works.

(d) Any discharge in compliance with the instructions of an On-Scene Coordinator pursuant to 40 CFR Part 1510 (The National Oil and Hazardous Substances Pollution Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances).

(e) Any introduction of pollutants from non point-source agricultural and silvicultural activities, including runoff from orchards, cultivated crops, pastures, range lands, and forest lands, but not discharges from concentrated animal feeding operations as defined in § 122.23, discharges from concentrated aquatic animal production facilities as defined in § 122.24, discharges to aquaculture projects as defined in § 122.25, and discharges from silvicultural point sources as defined in § 122.27.

(f) Return flows from irrigated agriculture.

(g) Discharges into a privately owned treatment works, except as the Director may otherwise require under § 122.44(m).

§ 122.4 Prohibitions (applicable to State NPDES programs, see § 123.25).

No permit may be issued:

(a) When the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA;

(b) When the applicant is required to obtain a State or other appropriate certification under section 401 of CWA and § 124.53 and that certification has not been obtained or waived;

(c) By the State Director where the Regional Administrator has objected to issuance of the permit under § 123.44;

(d) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States;

(e) When, in the judgment of the Secretary, anchorage and navigation in or on any of the waters of the United States would be substantially impaired by the discharge;

(f) For the discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste;

(g) For any discharge inconsistent with a plan or plan amendment approved under section 208(b) of CWA;

(h) For any discharge to the territorial sea, the waters of the contiguous zone, or the oceans in the following circumstances:

(1) Before the promulgation of guidelines under section 403(c) of CWA (for determining degradation of the waters of the territorial seas, the contiguous zone, and the oceans) unless the Director determines permit issuance to be in the public interest; or

(2) After promulgation of guidelines under section (403(c) of CWA, when insufficient information exists to make a reasonable judgment whether the discharge complies with them.

(i) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. The owner or operator of a new source or new discharger proposing to discharge into a water segment which does not meet applicable water quality standards or is not expected to meet those standards even after the application of the effluent limitations required by section

[Sec. 122.4(i)]

301(b)(1)(A) and 301(b)(1)(B) of CWA, and for which the State or interstate agency has performed a pollutants load allocation for the pollutant to be discharged, must demonstrate, before the close of the public comment period, that:

(1) There are sufficient remaining pollutant load allocations to allow for the discharge; and

[122.4(i) and (i)(1) corrected by 50 FR 6940, February 19, 1985]

(2) The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.

§ 122.5 Effect of a permit.

(a) *Applicable to State programs, see § 123.25.* Except for any toxic effluent standards and prohibitions imposed under section 307 of the CWA, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with section 301, 302, 306, 307, 318, 403, and 405 of CWA. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§ 122.62 and 122.64.

(b) *Applicable to State programs, See § 123.25.* The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

§ 122.6 Continuation of expiring permits.

(a) *EPA permits.* When EPA is the permit-issuing authority, the conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit (see § 124.15) if:

(1) The permittee has submitted a timely application under § 122.21 which is a complete (under § 122.21(e)) application for a new permit; and

(2) The Regional Administrator, through no fault of the permittee does not issue a new permit with an effective date under § 124.15 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) *Effect.* Permits continued under this section remain fully effective and enforceable.

[122.6(b) corrected by 50 FR 6940, February 19, 1985]

(c) *Enforcement.* When the permittee is not in compliance with the conditions of the expiring or expired permit the Regional Administrator may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under § 124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Part 124 with appropriate conditions; or

(4) Take other actions authorized by these regulations.

(d) *State continuation.* (1) An EPA-issued permit does not continue in force beyond its expiration date under Federal law if at that time a State is the permitting authority. States authorized to administer the NPDES program may continue either EPA or State-issued permits until the effective date of the new permits, if State law allows. Otherwise, the facility or activity is operating without a permit from the time of expiration of the old permit to the effective date of the State-issued new permit.

§ 122.7 Confidentiality of information.

(a) In accordance with 40-CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

(b) *Applicable to State programs, see § 123.25.* Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or permittee;

(2) Permit applications, permits, and effluent data.

(c) *Applicable to State programs, see § 123.25.* Information required by NPDES application forms provided by the Director under § 122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

Subpart B—Permit Application and Special NPDES Program Requirements

§ 122.21 Application for a permit (applicable to State programs, see § 123.25).

(a) *Duty to apply.* Any person who discharges or proposes to discharge pollutants and who does not have an effective permit, except persons covered by general permits under § 122.28, excluded under § 122.3, or a user of a privately owned treatment works unless the Director requires otherwise under § 122.44(m), shall submit a complete application (which shall include a BMP program if necessary under 40 CFR 125.102) to the Director in accordance with this section and Part 124.

(b) *Who applies?* When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.

(c)(1) *Time to apply.* Any person proposing a new discharge shall submit an application at least 180 days before the date on which the discharge is to commence, unless permission for a later date has been granted by the Director. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 180 day requirement to avoid delay. See also paragraph (k) of this section.

[122.21(c)(1) designated by 49 FR 38046, September 26, 1984]

(2) Any existing Group I storm water discharge (as defined in § 122.26(b)(2)) that does not have an effective permit shall submit an application by December 31, 1987. Any existing Group II storm water discharge (as defined in § 122.26(b)(3)) that does not have an effective permit shall submit an application by June 30, 1989. Any discharger designated under § 122.26(c) shall submit an application within 6 months of notification of its designation.

[122.21(c)(2) added by 49 FR 38046, September 26, 1984; corrected by 50 FR

[Sec. 122.21(c)(2)]

6940, February 19, 1985; revised by 50 FR 35203, August 29, 1985]

(d) *Duty to reapply.* (1) Any POTW with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

[*Editor's note:* EPA February 19, 1985, (50 FR 6940) corrected 122.21(d)(2) as it appeared at 48 FR 14146, April 1, 1983. However, that entire subparagraph was revised August 8, 1984 (49 FR 31842) and the 1983 text no longer exists.]

(2) All other permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that:

(i) The Regional Administrator may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date; and

(ii) The Regional Administrator may grant permission to submit the information required by paragraphs (g)(7), (9), and (10) of this section after the permit expiration date.

[122.21(d)(2) revised by 49 FR 31842, August 8, 1984]

(3) All applicants for EPA issued permits, other than POTWs and new sources, must complete Forms 1 and either 2b or 2c of the consolidated permit application forms to apply under section 122.21 and paragraphs (f), (g), and (h) of this section.

[122.21(d)(3) added by 49 FR 31842, August 8, 1984]

(e) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit except for NPDES general permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity. For EPA administered NPDES programs, an

application which is reviewed under § 124.3 is complete when the Director receives either a complete application or the information listed in a notice of deficiency.

(f) *Information requirements.* All applicants for NPDES permits shall provide the following information to the Director, using the application form provided by the Director (additional information required of applicants is set forth in paragraphs (g)-(k)) of this section.

(1) The activities conducted by the applicant which require it to obtain an NPDES permit.

(2) Name, mailing address, and location of the facility for which the application is submitted.

(3) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(4) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(5) Whether the facility is located on Indian lands.

(6) A listing of all permits or construction approvals received or applied for under any of the following programs:

(i) Hazardous Waste Management program under RCRA.

(ii) UIC program under SDWA.

(iii) NPDES program under CWA.

(iv) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(v) Nonattainment program under the Clean Air Act.

(vi) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(vii) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(viii) Dredge or fill permits under section 404 of CWA.

(ix) Other relevant environmental permits, including State permits.

(7) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are

injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the map area, Group II storm water discharges, as defined in § 122.26(b)(3), are exempt from the requirements of paragraph (f)(7) of this section.

[122.21(f)(7) amended by 49 FR 38046, September 26, 1984]

(8) A brief description of the nature of the business.

(9) For Group II storm water dischargers (as defined in § 122.26(b)(3)) only, a brief narrative description of:

(i) The drainage area, including an estimate of the size and nature of the area;

(ii) The receiving water; and

(iii) Any treatment applied to the discharge.

[122.21(f)(9) added by 49 FR 38046, September 26, 1984]

(g) *Application requirements for existing manufacturing, commercial, mining, and silvicultural dischargers.* Existing manufacturing, commercial, mining, and silvicultural dischargers applying for NPDES permits shall provide the following information to the Director, using application forms provided by the Director:

(1) *Outfall location.* The latitude and longitude to the nearest 15 seconds and the name of the receiving water.

(2) *Line Drawing.* A line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. Similar processes, operations, or production areas may be indicated as a single unit, labeled to correspond to the more detailed identification under paragraph (g)(3) of this section. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units. If a water balance cannot be determined (for example, for certain mining activities), the applicant may provide instead a pictorial description of the nature and amount of any sources of water and any collection and treatment measures.

(3) *Average flows and treatment.* A narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall, including process wastewater, cooling water, and storm-water runoff; the average flow which each process contributes; and a description of

[Sec. 122.21(g)(3)]

the treatment the wastewater receives, including the ultimate disposal of any solid or fluid wastes other than by discharge. Processes, operations, or production areas may be described in general terms (for example, "dye-making reactor", "distillation tower." For a privately owned treatment works, this information shall include the identity of each user of the treatment works.

(4) *Intermittent flows.* If any of the discharges described in paragraph (g)(3) of this section are intermittent or seasonal, a description of the frequency, duration and flow rate of each discharge occurrence (except for storm-water runoff, spillage or leaks).

[122.21(g)(3) corrected by 50 FR 6940, February 19, 1985]

(5) *Maximum production.* If an effluent guideline promulgated under section 304 of CWA applies to the applicant and is expressed in terms of production (or other measure of operation), a reasonable measure of the applicant's actual production reported in the units used in the applicable effluent guideline. The reported measure must reflect the actual production of the facility as required by § 122.45(b)(2).

(6) *Improvements.* If the applicant is subject to any present requirements or compliance schedules for construction, upgrading or operation of waste treatment equipment, an identification of the abatement requirement, a description of the abatement project, and a listing of the required and projected final compliance dates.

[122.21(g)(7) introductory text revised by 49 FR 38046, September 26, 1984]

(7) *Effluent characteristics.* Information on the discharge of pollutants specified in this subparagraph. When "quantitative data" for a pollutant are required, the applicant must collect a sample of effluent and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR Part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. When an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially

identical outfalls. The requirements in paragraphs (g)(7) (iii) and (iv) of this section that an applicant must provide quantitative data for certain pollutants known or believed to be present do not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform. For all other pollutants, 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours, and a minimum of one to four (4) grab samples may be taken for storm water discharges depending on the duration of the discharge. One grab sample shall be taken in the first hour (or less) of discharge with one additional grab sample taken in each succeeding hour of discharge up to a minimum of four grab samples for discharges lasting four or more hours. In addition, the Director may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. An applicant is expected to "know or have reason to believe" that a pollutant is present in an effluent based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant. (For example, any pesticide manufactured by a facility may be expected to be present in contaminated storm water runoff from the facility.)

(i)(A) Every applicant must report quantitative data for every outfall for the following pollutants:
Biochemical Oxygen Demand (BOD₅)
Chemical Oxygen Demand
Total Organic Carbon
Total Suspended Solids
Ammonia (as N)
Temperature (both winter and summer)
pH

(B) The Director may waive the reporting requirements for individual point sources or for a particular industry category for one or more of the pollutants listed in paragraph (g)(7)(i)(A)

of this section if the applicant has demonstrated that such a waiver is appropriate because information adequate to support issuance of a permit can be obtained with less stringent requirements.

[122.21(g)(7)(i)(B) revised by 49 FR 38046, September 26, 1984]

(ii) Each applicant with processes in one or more primary industry category (see Appendix A to Part 122) contributing to a discharge must report quantitative data for the following pollutants in each outfall containing process wastewater:

(A) The organic toxic pollutants in the fractions designated in Table I of Appendix D of this Part for the applicant's industrial category or categories unless the applicant qualifies as a small business under paragraph (g)(8) of this section. Table II of Appendix D of this Part lists the organic toxic pollutants in each fraction. The fractions result from the sample preparation required by the analytical procedure which uses gas chromatography/mass spectrometry. A determination that an applicant falls within a particular industrial category for the purposes of selecting fractions for testing is not conclusive as to the applicant's inclusion in that category for any other purposes. [See Notes 2, 3, and 4 of this section.]

[122.21(g)(7)(ii)(A) corrected by 50 FR 6940, February 19, 1985]

(B) The pollutants listed in Table III of Appendix D of this Part (the toxic metals, cyanide, and total phenols).

[122.21(g)(7)(iii) revised by 49 FR 38046, September 26, 1984]

(iii)(A) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants in Table IV of Appendix D (certain conventional and nonconventional pollutants) is discharged from each outfall. If an applicable effluent limitations guideline either directly limits the pollutant or, by its express terms, indirectly limits the pollutant through limitations on an indicator, the applicant must report quantitative data. For every pollutant discharged which is not so limited in an effluent limitations guideline, the applicant must either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

[Sec. 122.21(g)(7)(iii)]

(B) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants listed in Table II or Table III of Appendix D (the toxic pollutants and total phenols) for which quantitative data are not otherwise required under paragraph (g)(7)(ii) of this section, is discharged from each outfall. For every pollutant expected to be discharged in concentrations of 10 ppb or greater the applicant must report quantitative data. For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, where any of these four pollutants are expected to be discharged in concentrations of 100 ppb or greater the applicant must report quantitative data. For every pollutant expected to be discharged in concentrations less than 10 ppb, or in the case of acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, in concentrations less than 100 ppb, the applicant must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged. An applicant qualifying as a small business under paragraph (g)(8) of this section is not required to analyze for pollutants listed in Table II of Appendix D (the organic toxic pollutants).

(iv) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants in Table V of Appendix D of this Part (certain hazardous substances and asbestos) are discharged from each outfall. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data it has for any pollutant.

[122.21(g)(7)(iv) corrected by 50 FR 6940, February 19, 1985]

(v) Each applicant must report qualitative data, generated using a screening procedure not calibrated with analytical standards, for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) if it:

(A) Uses or manufactures 2,4,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or

hexachlorophene (HCP); or

(B) Knows or has reason to believe that TCDD is or may be present in an effluent.

(8) *Small business exemption.* An applicant which qualifies as a small business under one of the following criteria is exempt from the requirements in paragraphs (g)(7)(ii)(A) or (g)(7)(iii)(A) of this section to submit quantitative data for the pollutants listed in Table II of Appendix D of this Part (the organic toxic pollutants):

(i) For coal mines, a probable total annual production of less than 100,000 tons per year.

(ii) For all other applicants, gross total annual sales averaging less than \$100,000 per year (in second quarter 1980 dollars).

(9) *Used or manufactured toxics.* A listing of any toxic pollutant which the applicant currently uses or manufactures as an intermediate or final product or byproduct. The Director may waive or modify this requirement for any applicant if the applicant demonstrates that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue the permit.

[122.21(g)(9) revised by 49 FR 38046, September 26, 1984]

(10) *Storm water point source exemption.*

(i) An applicant that qualifies as a Group II storm water discharger under § 122.28(b)(3) is exempt from the requirements of paragraphs (f)(7) and (g) of this section, unless the Director requests such information.

(ii) For the purpose of paragraph (g)(3) of this section, storm water point sources may estimate the average flow of their discharge and must indicate the rainfall event and the method of estimation that the estimate is based on.

(iii) The Director may require additional information under paragraph (g)(13) of this section, and may request any Group II storm water dischargers to comply with paragraph (g) of this section.

[122.21(g)(10) revised by 49 FR 38046, September 26, 1984]

(11) *Biological toxicity tests.* An identification of any biological toxicity tests which the applicant knows or has reason to believe have been made within the last 3 years on any of the applicant's discharges or on a receiving water in relation to a discharge.

(12) *Contract analyses.* If a contract laboratory or consulting firm performed any of the analyses required by paragraph (g)(7) of this section, the identity of each laboratory or firm and the analyses performed.

(13) *Additional information.* In addition to the information reported on the application form, applicants shall provide to the Director, at his or her request, such other information as the Director may reasonably require to assess the discharges of the facility and to determine whether to issue an NPDES permit. The additional information may include additional quantitative data and bioassays to assess the relative toxicity of discharges to aquatic life and requirements to determine the cause of the toxicity.

(h) *Application requirements for new and existing concentrated animal feeding operations and aquatic animal production facilities.* New and existing concentrated animal feeding operations (defined in § 122.23) and concentrated aquatic animal production facilities (defined in § 122.24) shall provide the following information to the Director, using the application form provided by the Director:

(1) For concentrated animal feeding operations:

(i) The type and number of animals in open confinement and housed under roof.

(ii) The number of acres used for confinement feeding.

(iii) The design basis for the runoff diversion and control system, if one exists, including the number of acres of contributing drainage, the storage capacity, and the design safety factor.

(2) For concentrated aquatic animal production facilities:

(i) The maximum daily and average monthly flow from each outfall.

(ii) The number of ponds, raceways, and similar structures.

(iii) The name of the receiving water and the source of intake water.

(iv) For each species of aquatic animals, the total yearly and maximum harvestable weight.

(v) The calendar month of maximum feeding and the total mass of food fed during that month.

(i) *Application requirements for new and existing POTWs.* [Reserved.]

(j) *Application requirements for new sources and new dischargers.*

[Reserved.]

(k) *Special provisions for applications from new sources.* (1) The owner or operator of any facility which may be a new source (as defined in § 122.2) and which is located in a State without an approved NPDES program must comply with the provisions of this paragraph.

(2)(i) Before beginning any on-site construction as defined in § 122.29, the owner or operator of any facility which may be a new source must submit information to the Regional Administrator so that he or she can determine if the facility is a new source. The Regional Administrator may request any additional information needed to determine whether the facility is a new source.

(ii) The Regional Administrator shall make an initial determination whether the facility is a new source within 30 days of receiving all necessary information under paragraph (k)(2)(i) of this section.

(3) The Regional Administrator shall issue a public notice in accordance with § 124.10 of the new source determination under paragraph (k)(2) of this section. If the Regional Administrator has determined that the facility is a new source, the notice shall state that the applicant must comply with the environmental review requirements of 40 CFR 6.600 *et seq.*

(4) Any interested person may challenge the Regional Administrator's initial new source determination by requesting an evidentiary hearing under Subpart E of Part 124 within 30 days of issuance of the public notice of the initial determination. If all parties to the evidentiary hearing on the determination agree, the Regional Administrator may defer the hearing until after a final permit decision is made, and consolidate the hearing on the determination with any hearing on the permit.

[122.21(k)(4) amended by 49 FR 38046, September 26, 1984]

(l) *Variance requests by non-POTWs.* A discharger which is not a publicly owned treatment works (POTW) may request a variance from otherwise applicable effluent limitations under any of the following statutory or regulatory provisions within the times specified in this paragraph:

(1) *Fundamentally different factors.* A request for a variance based on the presence of "fundamentally different factors" from those on which the effluent limitations guideline was based, shall be made by the close of the public comment period under § 124.10. The request shall explain how the requirements of § 124.13 and 40 CFR Part 125, Subpart D have been met.

(2) *Non-conventional pollutants.* A request for a variance from the BAT requirements for CWA section 301(b)(2)(F) pollutants (commonly called "non-conventional" pollutants) pursuant to section 301(c) of CWA because of the economic capability of the owner or operator, or pursuant to section 301(g) of CWA because of certain environmental considerations, when those requirements were based on effluent limitation guidelines, must be made by:

(i) Submitting an initial request to the Regional Administrator, as well as to the State Director if applicable, stating the name of the discharger, the permit number, the outfall number(s), the applicable effluent guideline, and whether the discharger is requesting a section 301(c) or section 301(g) modification or both. This request must have been filed not later than:

(A) September 25, 1978, for a pollutant which is controlled by a BAT effluent limitation guideline promulgated before December 27, 1977; or

(B) 270 days after promulgation of an applicable effluent limitation guideline for guidelines promulgated after December 27, 1977; and

(ii) Submitting a completed request no later than the close of the public comment period under § 124.10 demonstrating that the requirements of § 124.13 and the applicable requirements of Part 125 have been met.

(iii) Requests for variance from effluent limitations not based on effluent limitation guidelines need only comply with paragraph (1)(2)(ii) of this section and need not be preceded by an initial request under paragraph (1)(2)(i) of this section.

(3) *Delay in construction of POTW.* An extension under CWA section 301(i)(2) of the statutory deadlines in sections 301(b)(1)(A) or (b)(1)(C) of CWA based on delay in completion of a POTW into which the source is to discharge must have been requested on or before June 26, 1978, or 180 days

after the relevant POTW requested an extension under paragraph (m)(2) of this section, whichever is later, but in no event may this date have been later than December 25, 1978. The request shall explain how the requirements of 40 CFR Part 125, Subpart J have been met.

(4) *Innovative technology.* An extension under CWA section 301(k) from the statutory deadline of section 301(b)(2)(A) for best available technology based on the use of innovative technology may be requested no later than the close of the public comment period under § 124.10 for the discharger's initial permit requiring compliance with section 301(b)(2)(A). The request shall demonstrate that the requirements of § 124.13 and Part 125, Subpart C have been met.

(5) *Water quality related effluent limitations.* A modification under section 302(b)(2) of requirements under section 302(a) for achieving water quality related effluent limitations may be requested no later than the close of the public comment period under § 124.10 on the permit from which the modification is sought.

(6) *Thermal discharges.* A variance under CWA section 316(a) for the thermal component of any discharge must be filed with a timely application for a permit under this section, except that if thermal effluent limitations are established under CWA Section 402(a)(1) or are based on water quality standards the request for a variance may be filed by the close of the public comment period under § 124.10. A copy of the request as required under 40 CFR Part 125, Subpart H, shall be sent simultaneously to the appropriate State or interstate certifying agency as required under 40 CFR Part 125. (See § 124.65 for special procedures for section 316(a) thermal variances.)

(m) *Variance requests by POTWs.* A discharger which is a publicly owned treatment works (POTW) may request a variance from otherwise applicable effluent limitations under any of the following statutory provisions as specified in this paragraph:

(1) *Discharges into marine waters.* A request for a modification under CWA section 301(h) of requirements of CWA section 301(b)(1)(B) for discharges into marine waters must be filed in accordance with the requirements of 40 CFR Part 125, Subpart G.

(2) *Delay in construction.* An extension under CWA section 301(i)(1) of

[Sec. 122.21(m)(2)]

the statutory deadlines in CWA section 301(b)(1)(B) or (b)(1)(C) based on delay in the construction of the POTW must have been requested on or before June 26, 1978.

(3) *Water quality based effluent limitation.* A modification under CWA section 302(b)(2) of the requirements under section 302(a) for achieving water quality based effluent limitations shall be requested no later than the close of the public comment period under § 124.10 on the permit from which the modification is sought.

(n) *Expedited variance procedures and time extensions.* (1) Notwithstanding the time requirements in paragraphs (l) and (m) of this section, the Director may notify a permit applicant before a draft permit is issued under § 124.6 that the draft permit will likely contain limitations which are eligible for variances. In the notice the Director may require the applicant as a condition of consideration of any potential variance request to submit a request explaining how the requirements of 40 CFR Part 125 applicable to the variance have been met and may require its submission within a specified reasonable time after receipt of the notice. The notice may be sent before the permit application has been submitted. The draft or final permit may contain the alternative limitations which may become effective upon final grant of the variance.

(2) A discharger who cannot file a complete request required under paragraph (1)(2)(ii) or (1)(2)(iii) of this section may request an extension. The extension may be granted or denied at the discretion of the Director. Extensions shall be no more than 6 months in duration.

(o) *Recordkeeping.* Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under this section for a period of at least 3 years from the date the application is signed.

NOTE 1: At 46 FR 2046, Jan. 8, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to coal mines. This revision continues that suspension.

NOTE 2: At 46 FR 22585, Apr. 20, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

1. Testing and reporting for all four organic fractions in the Greige Mills Subcategory of the Textile Mills industry (Subpart C—Low water use processing of 40 CFR Part 410), and testing and reporting for the pesticide fraction in all other subcategories of this industrial category.

2. Testing and reporting for the volatile, base/neutral and pesticide fractions in the Base and Precious Metals Subcategory of the Ore Mining and Dressing industry (Subpart B of 40 CFR Part 440), and testing and reporting for all four fractions in all other subcategories of this industrial category.

3. Testing and reporting for all four GC/MS fractions in the Porcelain Enameling industry.

This revision continues that suspension.

NOTE 3: At 46 FR 35090, July 1, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

1. Testing and reporting for the pesticide fraction in the Tall Oil Rosin Subcategory (Subpart D) and Rosin-Based Derivatives Subcategory (Subpart F) of the Gum and Wood Chemicals industry (40 CFR Part 454), and testing and reporting for the pesticide and base/neutral fractions in all other subcategories of this industrial category.

2. Testing and reporting for the pesticide fraction in the Leather Tanning and Finishing, Paint and Ink Formulation, and Photographic Supplies industrial categories.

3. Testing and reporting for the acid, base/neutral and pesticide fractions in the Petroleum Refining industrial category.

4. Testing and reporting for the pesticide fraction in the Papergrade Sulfite subcategories (Subparts J and U) of the Pulp and Paper industry (40 CFR Part 430); testing and reporting for the base/neutral and pesticide fractions in the following subcategories: Deink (Subpart Q), Dissolving Kraft (Subpart F), and Paperboard from Waste Paper (Subpart E); testing and reporting for the volatile, base/neutral and pesticide fractions in the following subcategories: BCT Bleached Kraft (Subpart H), Semi-Chemical (Subparts B and C), and Nonintegrated-Fine Papers (Subpart R); and testing and reporting for the acid, base/neutral, and pesticide fractions in the following subcategories: Fine Bleached Kraft (Subpart I), Dissolving Sulfite Pulp (Subpart K), Groundwood-Fine Papers (Subpart O), Market Bleached Kraft (Subpart G), Tissue from Wastepaper (Subpart T), and Nonintegrated-Tissue Papers (Subpart S).

5. Testing and reporting for the base/neutral fraction in the Once-Through Cooling Water, Fly Ash and Bottom Ash Transport Water process wastestreams of the Steam Electric Power Plant industrial category.

This revision continues that suspension.

Note 4: [Deleted]

[Note 4 deleted by 50 FR 6940, February 19, 1985]

(Information collection requirements in paragraph (f) were approved by the Office of Management and Budget under control number 2000-0474).

(Information collection requirements in paragraph (g) were approved by the Office of Management and Budget under control number 2000-0059).

(Information collection requirements in paragraph (h) were approved by the Office of Management and Budget under control number 2040-0086).

[122.21 amended by 50 FR 4513, January 31, 1985]

§ 122.22 Signatories to permit applications and reports (applicable to State programs, see § 123.25).

(a) *Applications.* All permit applications shall be signed as follows:

(1) *For a corporation:* by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in § 122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under § 122.22(a)(1)(ii) rather than to specific individuals.

[122.22(a)(1) revised by 48 FR 39619, September 1, 1983]

(2) *For a partnership or sole proprietorship:* by a general partner or the proprietor, respectively; or

(3) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

[122.22(a)(3) revised by 48 FR 39619, September 1, 1983]

(b) All reports required by permits, other information requested by the Director, and all permit applications submitted for Group II storm water discharges under § 122.26(b)(3) shall be signed by a person described in paragraph (a), or by a duly authorized representative of that person. A person is a duly authorized representative only if:

[122.22(b) introductory text revised by 49 FR 38046, September 26, 1984]

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

[122.22(b)(2) revised by 49 FR 38046, September 26, 1984]

(3) The written authorization is submitted to the Director.

(c) *Changes to authorization.* If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) *Certification.* Any person signing a document under paragraphs (a) or (b) of

this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

[122.22(d) revised by 48 FR 39619, September 1, 1983; corrected by 50 FR 6940, February 19, 1985]

§ 122.23 Concentrated animal feeding operations (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* Concentrated animal feeding operations are point sources subject to the NPDES permit program.

(b) *Definitions.* (1) "Animal feeding operation" means a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

(i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and

(ii) Crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

(2) Two or more animal feeding operations under common ownership are considered, for the purposes of these regulations, to be a single animal feeding operation if they adjoin each other or if they use a common area or system for the disposal of wastes.

(3) "Concentrated animal feeding operation" means an "animal feeding operation" which meets the criteria in Appendix B of this part, or which the Director designates under paragraph (c) of this section.

(c) *Case-by-case designation of concentrated animal feeding operations.*

(1) The Director may designate any animal feeding operation as a concentrated animal feeding operation upon determining that it is a significant contributor of pollution to the waters of the United States. In making this designation the Director shall consider the following factors:

(i) The size of the animal feeding operation and the amount of wastes reaching waters of the United States;

(ii) The location of the animal feeding operation relative to waters of the United States;

(iii) The means of conveyance of animal wastes and process waste waters into waters of the United States;

(iv) The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes and process waste waters into waters of the United States; and

(v) Other relevant factors.

(2) No animal feeding operation with less than the numbers of animals set forth in Appendix B of this part shall be designated as a concentrated animal feeding operation unless:

(i) Pollutants are discharged into waters of the United States through a manmade ditch, flushing system, or other similar manmade device; or

(ii) Pollutants are discharged directly into waters of the United States which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(3) A permit application shall not be required from a concentrated animal feeding operation designated under this paragraph until the Director has conducted an on-site inspection of the operation and determined that the operation should and could be regulated under the permit program.

§ 122.24 Concentrated aquatic animal production facilities (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* Concentrated aquatic animal production facilities, as defined in this section, are point sources subject to the NPDES permit program.

(b) *Definition.* "Concentrated aquatic animal production facility" means a hatchery, fish farm, or other facility which meets the criteria in Appendix C of this part, or which the Director designates under paragraph (c) of this section.

(c) *Case-by-case designation of concentrated aquatic animal production facilities.* (1) The Director may designate any warm or cold water aquatic animal production facility as a concentrated aquatic animal production facility upon determining that it is a sig-

[Sec. 122.24(c)(1)]

nificant contributor of pollution to waters of the United States. In making this designation the Director shall consider the following factors:

- (i) The location and quality of the receiving waters of the United States;
- (ii) The holding, feeding, and production capacities of the facility;
- (iii) The quantity and nature of the pollutants reaching waters of the United States; and
- (iv) Other relevant factors.

(2) A permit application shall not be required from a concentrated aquatic animal production facility designated under this paragraph until the Director has conducted on-site inspection of the facility and has determined that the facility should and could be regulated under the permit program.

§ 122.25 Aquaculture projects (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* Discharges into aquaculture projects, as defined in this section, are subject to the NPDES permit program through section 318 of CWA, and in accordance with 40 CFR Part 125, Subpart B.

(b) *Definitions.* (1) "Aquaculture project" means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals.

(2) "Designated project area" means the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.

§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).

[122.26 revised by 49 FR 38046, September 26, 1984]

(a) *Permit requirement.* Storm water point sources, as defined in this section, are point sources subject to the NPDES permit program. The Director may issue an NPDES permit or permits for discharges into waters of the United

States from a storm water point source covering all conveyances which are a part of that storm water discharge. Where there is more than one owner or operator of a single system of such conveyances, any or all discharges into the storm water discharge system may be identified in the application submitted by the owner or operator of the portion of the system that discharges directly into waters of the United States. Any such application shall include all information regarding discharges into the system that would be required if the dischargers submitted separate applications. Dischargers so identified shall not require a separate permit unless the Director specifies otherwise. Any permit covering more than one owner or operator shall identify the effluent limitations, if any, which apply to each owner or operator. Where there is more than one owner or operator, no discharger into the storm water discharge may be subject to a permit condition for discharges into the storm water discharge other than its own discharges into that system without its consent. All dischargers into a storm water discharge system must either be covered by an individual permit or a permit issued to the owner or operator of the portion of the system that directly discharges. (See § 122.21(c)(2) for application deadline for existing storm water point sources.)

(b) *Definitions.* (1) "Storm water point source" means a conveyance or system of conveyances (including pipes, conduits, ditches, and channels) primarily used for collecting and conveying storm water runoff and which:

(i) Is located at an urbanized area as designated by the Bureau of the Census according to the criteria in 39 FR 15202 (May 1, 1974); or
[122.26(b)(1)(i) corrected by 50 FR 6940, February 19, 1985]

(ii) Discharges from lands or facilities used for industrial or commercial activities; or

(iii) Is designated under paragraph (c) of this section. Conveyances that discharge storm water runoff combined with municipal sewage are point sources that must obtain NPDES permits, but are not "storm water point sources".

(2) "Group I storm water discharge" means any "storm water point source" which is:

(i) Subject to effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards;

(ii) Designated under paragraph (c) of this section; or

(iii) Located at an industrial plant or in plant associated areas. "Plant associated areas" means industrial plant yards, immediate access roads, drainage ponds, refuse piles, storage piles or areas and material or products loading and unloading areas. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots.

(3) "Group II storm water discharge" means any "storm water point source" not included in paragraph (b)(2) of this section. (See § 122.21(g)(10) for exemption from certain application requirements.)

(4) A conveyance or system of conveyances operated primarily for the purpose of collecting and conveying storm water runoff which does not constitute a "storm water point source" under paragraph (b)(1) of this section is not considered a point source subject to the requirements of CWA.

(5) Whether a system of conveyances is or is not a storm water point source for purposes of this section shall have no bearing on whether the system is eligible for funding under Title II of CWA. See 40 CFR 35.925-21.

(c) *Case-by-case designation of storm water discharges.* The Director may designate a conveyance or system of conveyances primarily used for collecting and conveying storm water runoff as a storm water point source. This designation may be made to the extent allowed or required by EPA promulgated effluent limitations guidelines for point sources in the storm water discharge category or when:

(1) A Water Quality Management plan under section 208 of CWA which contains requirements applicable to such point sources is approved; or

(2) The Director determines that a storm water discharge is a significant contributor of pollution to the waters of the United States. In making this determination the Director shall consider the following factors:

(i) The location of the discharge with respect to waters of the United States;

- (ii) The size of the discharge;
- (iii) The quantity and nature of the pollutants reaching waters of the United States; and
- (iv) Other relevant factors.

§ 122.27 Silvicultural activities (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* Silvicultural point sources, as defined in this section, as point sources subject to the NPDES permit program.

(b) *Definitions.* (1) "Silvicultural point source" means any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. The term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA section 404 permit (See 33 CFR 209.120 and Part 233).

(2) "Rock crushing and gravel washing facilities" means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR Part 436, Subpart B, including the effluent limitations guidelines).

(3) "Log sorting and log storage facilities" means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR Part 429, Subpart I, including the effluent limitations guidelines).

§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).

(a) *Coverage.* The Director may issue a general permit in accordance with the following:

(1) *Area.* The general permit shall be written to cover a category of discharges described in the permit under paragraph (a)(2) of this section, except those covered by individual permits, within a geographic area. The

area shall correspond to existing geographic or political boundaries, such as:

- (i) Designated planning areas under sections 208 and 303 of CWA;
- (ii) Sewer districts or sewer authorities;
- (iii) City, county, or State political boundaries;
- (iv) State highway systems;
- (v) Standard metropolitan statistical areas as defined by the Office of Management and Budget;
- (vi) Urbanized areas as designated by the Bureau of the Census according to criteria in 30 FR 15202 (May 1, 1974); or
- (vii) Any other appropriate division or combination of boundaries.

[122.28(a)(2) amended by 49 FR 38046, September 26, 1984]

(2) *Sources:* The general permit may be written to regulate, within the area described in paragraph (a)(1) of this section, either:

- (i) Storm water point sources; or
- [*Editor's note:* EPA February 19, 1985 (50 FR 6940), corrected 122.28(a)(2)(ii) as it appeared at 48 FR 14165, April 1, 1983. However that entire subparagraph was revised September 26, 1984 (49 FR 38048), superseding the 1983 text.]
- (ii) A category of point sources other than storm water point sources if the sources all:
 - (A) Involve the same or substantially similar types of operations;
 - (B) Discharge the same types of wastes;
 - (C) Require the same effluent limitation or operating conditions;
 - (D) Require the same or similar monitoring; and
 - (E) In the opinion of the Director, are more appropriately controlled under a general permit than under individual permits.

(b) *Administration.* (1) *In general.* General permits may be issued, modified, revoked and reissued, or terminated in accordance with applicable requirements of Part 124 or corresponding State regulations. Special procedures for issuance are found at § 123.44 for States and § 124.58 for EPA.

(2) *Requiring an individual permit.* (i) The Director may require any person authorized by a general permit to apply for and obtain an individual NPDES permit. Any interested person may petition the Director to take action under this paragraph. Cases where an individual NPDES permit may be required include the following:

(A) The discharge(s) is a significant contributor of pollution as determined by the factors set forth at § 122.26(c)(2);

(B) The discharger is not in compliance with the conditions of the general NPDES permit;

(C) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

(D) Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

(E) A Water Quality Management plan containing requirements applicable to such point sources is approved; or

(F) The requirements of paragraph (a) of this section are not met.

(ii) *For EPA issued general permits only,* the Regional Administrator may require any owner or operator authorized by a general permit to apply for an individual NPDES permit as provided in paragraph (b)(2)(i) of this section, only if the owner or operator has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time for the owner or operator to file the application, and a statement that on the effective date of the individual NPDES permit the general permit as it applies to the individual permittee shall automatically terminate. The Director may grant additional time upon request of the applicant.

(iii) Any owner or operator authorized by a general permit may request to be excluded from the coverage of the general permit by applying for an individual permit. The owner or operator shall submit an application under § 122.21, with reasons supporting the request, to the Director no later than 90 days after the publication by EPA of the general permit in the FEDERAL REGISTER or the publication by a State in accordance with applicable State law. The request shall be processed under Part 124 or applicable State procedures. The request shall be granted by issuing of any individual permit if the reasons cited by the owner or operator are adequate to support the request.

(iv) When an individual NPDES permit is issued to an owner or operator otherwise subject to a general NPDES permit, the applicability of the general permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit.

[Sec. 122.28(b)(2)(iv)]

(v) A source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by the general permit. Upon revocation of the individual permit, the general permit shall apply to the source.

[122.28(c) added by 48 FR 39619, September 1, 1983]

(c) *Offshore Oil and Gas Facilities* (Not applicable to State programs.) (1) The Regional Administrator shall, except as provided below, issue general permits covering discharges from offshore oil and gas exploration and production facilities within the Region's jurisdiction. Where the offshore area includes areas, such as areas of biological concern, for which separate permit conditions are required, the Regional Administrator may issue separate general permits, individual permits, or both. The reason for separate general permits or individual permits shall be set forth in the appropriate fact sheets or statements of basis. Any statement of basis or fact sheet for a draft permit shall include the Regional Administrator's tentative determination as to whether the permit applies to "new sources," "new dischargers," or existing sources and the reasons for this determination, and the Regional Administrator's proposals as to areas of biological concern subject either to separate individual or general permits. For Federally leased lands, the general permit area should generally be no less extensive than the lease sale area defined by the Department of the Interior.

(2) Any interested person, including any prospective permittee, may petition the Regional Administrator to issue a general permit. Unless the Regional Administrator determines under paragraph (c)(1) that no general permit is appropriate, he shall promptly provide a project decision schedule covering the issuance of the general permit or permits for any lease sale area for which the Department of the Interior has published a draft environmental impact statement. The project decision schedule shall meet the requirements of § 124.3(g), and shall include a schedule providing for the issuance of the final general permit or permits not later than the date of the final notice of sale projected by the

Department of the Interior or six months after the date of the request, whichever is later. The Regional Administrator may, at his discretion, issue a project decision schedule for offshore oil and gas facilities in the territorial seas.

(3) Nothing in this paragraph (c) shall affect the authority of the Regional Administrator to require an individual permit under § 122.28(b)(2)(i)(A) through (F).

§ 122.29 New sources and new dischargers.

(a) *Definitions.* (1) "New source" and "new discharger" are defined in § 122.2. [See Note 2.]

(2) "Source" means any building, structure, facility, or installation from which there is or may be a discharge of pollutants.

(3) "Existing source" means any source which is not a new source or a new discharger.

(4) "Site" is defined in § 122.2;

(5) "Facilities or equipment" means buildings, structures, process or production equipment or machinery which form a permanent part of the new source and which will be used in its operation, if these facilities or equipment are of such value as to represent a substantial commitment to construct. It excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding the source or water pollution treatment for the source.

[122.29(b) revised by 49 FR 38046, September 26, 1984]

(b) *Criteria for new source determination.*

(1) Except as otherwise provided in an applicable new source performance standard, a source is a "new source" if it meets the definition of "new source" in § 122.2, and

(i) It is constructed at a site at which no other source is located; or

(ii) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) Its processes are substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the Director shall consider such factors as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged

in the same general type of activity as the existing source.

(2) A source meeting the requirements of paragraphs (b)(1)(i), (ii), or (iii) of this section is a new source only if a new source performance standard is independently applicable to it. If there is no such independently applicable standard, the source is a new discharger. See § 122.2.

(3) Construction on a site at which an existing source is located results in a modification subject to § 122.62 rather than a new source (or a new discharger) if the construction does not create a new building, structure, facility, or installation meeting the criteria of paragraphs (b)(1)(ii) or (iii) of this section but otherwise alters, replaces, or adds to existing process or production equipment.

(4) Construction of a new source as defined under § 122.2 has commenced if the owner or operator has:

(i) Begun, or caused to begin as part of a continuous on-site construction program:

(A) Any placement, assembly, or installation of facilities or equipment; or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(ii) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph.

(c) *Requirement for an Environmental Impact Statement.* (1) The issuance of an NPDES permit to new source:

(i) By EPA may be a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (NEPA), 33 U.S.C. 4321 *et seq.* and is subject to the environmental review provisions of NEPA as set out in 40 CFR Part 6, Subpart F. EPA will determine whether an Environmental Impact Statement (EIS) is required under § 122.21(k) (special provisions for applications from new sources) and 40 CFR Part 6, Subpart F;

(ii) By an NPDES approved State is

not a Federal action and therefore does not require EPA to conduct an environmental review.

(2) An EIS prepared under this paragraph shall include a recommendation either to issue or deny the permit.

(i) If the recommendation is to deny the permit, the final EIS shall contain the reasons for the recommendation and list those measures, if any, which the applicant could take to cause the recommendation to be changed;

(ii) If the recommendation is to issue the permit, the final EIS shall recommend the actions, if any, which the permittee should take to prevent or minimize any adverse environmental impacts;

(3) The Regional Administrator, to the extent allowed by law, shall issue, condition (other than imposing effluent limitations), or deny the new source NPDES permit following a complete evaluation of any significant beneficial and adverse impacts of the proposed action and a review of the recommendations contained in the EIS or finding of no significant impact.

[122.29(c)(3) amended by 49 FR 38046, September 26, 1984]

(4)(i) No on-site construction of a new source for which an EIS is required shall commence before final Agency action in issuing a final permit incorporating appropriate EIS-related requirements, or before execution by the applicant of a legally binding written agreement which requires compliance with all such requirements, unless such construction is determined by the Regional Administrator not to cause significant or irreversible adverse environmental impact. The provisions of any agreement entered into under this paragraph shall be incorporated as conditions of the NPDES permit when it is issued.

(ii) No on-site construction of a new source for which an EIS is not required shall commence until 30 days after issuance of a finding of no significant impact, unless the construction is determined by the Regional Administrator not to cause significant or irreversible adverse environmental impacts.

(5)(i) The commencement of on-site construction in violation of paragraph (c) of this section shall constitute grounds for denial of a permit.

[122.29(c)(5)(i) added by 49 FR 38046, September 26, 1984]

(5)(ii) The permit applicant must notify the Regional Administrator of any on-site construction which begins before the times specified in paragraph (c)(4) of this section. If on-site construction begins in violation of this paragraph, the Regional Administrator shall advise the owner or operator that it is proceeding with construction at its own risk, and that such construction activities constitute grounds for denial of a permit. The Regional Administrator may seek a court order to enjoin construction in violation of this paragraph.

[Former 122.29(c)(5) redesignated as (c)(5)(ii) by 49 FR 38046, September 26, 1984]

(d) *Effect of compliance with new source performance standards.* (The provisions of this paragraph do not apply to existing sources which modify their pollution control facilities or construct new pollution control facilities and achieve performance standards, but which are neither new sources or new dischargers or otherwise do not meet the requirements of this paragraph.)

(1) Except as provided in paragraph (d)(2) of this section, any new discharger, the construction of which commenced after October 18, 1972, or new source which meets the applicable promulgated new source performance standards before the commencement of discharge, may not be subject to any more stringent new source performance standards or to any more stringent technology-based standards under section 301(b)(2) of CWA for the soonest ending of the following periods:

(i) Ten years from the date that construction is completed;

(ii) Ten years from the date the source begins to discharge process or other nonconstruction related wastewater; or

(iii) The period of depreciation or amortization of the facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1954.

(2) The protection from more stringent standards of performance afforded by paragraph (d)(1) of this section does not apply to:

(i) Additional or more stringent permit conditions which are not technology based; for example, conditions

based on water quality standards, or toxic effluent standards or prohibitions under section 307(a) of CWA; or

(ii) Additional permit conditions in accordance with §125.3 controlling toxic pollutants or hazardous substances which are not controlled by new source performance standards. This includes permit conditions controlling pollutants other than those identified as toxic pollutants or hazardous substances when control of these pollutants has been specifically identified as the method to control the toxic pollutants or hazardous substances.

(3) When an NPDES permit issued to a source with a "protection period" under paragraph (d)(1) of this section will expire on or after the expiration of the protection period, that permit shall require the owner or operator of the source to comply with the requirements of section 301 and any other then applicable requirements of CWA immediately upon the expiration of the protection period. No additional period for achieving compliance with these requirements may be allowed except when necessary to achieve compliance with requirements promulgated less than 3 years before the expiration of the protection period.

(4) The owner or operator of a new source, a new discharger which commenced discharge after August 13, 1979, or a recommencing discharger shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet the conditions of its permits before beginning to discharge. Within the shortest feasible time (not to exceed 90 days), the owner or operator must meet all permit conditions. The requirements of this paragraph do not apply if the owner or operator is issued a permit containing a compliance schedule under §122.47(a)(2).

[122.29(d)(4) amended by 49 FR 38046, September 26, 1984]

(5) After the effective date of new source performance standards, it shall be unlawful for any owner or operator of any new source to operate the source in violation of those standards applicable to the source.

Note 1: [Deleted]

Note 2: [Deleted]

[Notes 1, 2 deleted by 50 FR 6940, February 19, 1985]

[Sec. 122.29(d)(5)]

(Information collection requirements in paragraph (c)(5) were approved by the Office of Management and Budget under control number 2040-0078).

[122.29 amended by 50 FR 4513, January 31, 1985]

Subpart C—Permit Conditions

§ 122.41 Conditions applicable to all permits (applicable to State programs, see § 123.25).

The following conditions apply to all NPDES permits. Additional conditions applicable to NPDES permits are in § 122.42. All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

(a) *Duty to comply.* The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The Clean Water Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

[122.41(a)(2) corrected by 50 FR 6940, February 19, 1985]

(b) *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) *Need to halt or reduce activity not a defense.* It shall not be a defense for a

permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[122.41(c) and (d) revised by 48 FR 39619, September 1, 1983; (c) head corrected by 50 FR 6940, February 19, 1985]

(d) *Duty to Mitigate.* The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(3)(c) *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

[122.41(e) revised by 49 FR 38046, September 26, 1984]

(f) *Permit actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(g) *Property rights.* This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) *Duty to provide information.* The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

(i) *Inspection and entry.* The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other

documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

(j) *Monitoring and records.* (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

(5) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall,

upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(k) *Signatory requirement.* (1) All applications, reports, or information submitted to the Director shall be signed and certified. (See § 122.22)

(2) The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(l) *Reporting requirements.* — (1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in § 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under § 122.42(a)(1).

[122.41(l)(1) revised by 49 FR 38046, September 26, 1984]

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See § 122.61; in some cases, modification or revocation and reissuance is mandatory.)

(4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(ii) If the permittee monitors any pollutant more frequently than required

by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

(5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) *Twenty-four hour reporting.* (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See § 122.41(g).)

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See § 122.44(g).)

(iii) The Director may waive the written report on a case-by-case basis for reports under paragraph (l)(6)(ii) of this section if the oral report has been received within 24 hours.

(7) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section.

(8) *Other information:* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

[122.41(l)(8) added by 50 FR 6940, February 19, 1985]

(m) *Bypass.* (1) *Definitions.* (i)

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) *Bypass not exceeding limitations.*

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this section.

(3) *Notice.* (i) *Anticipated bypass.* If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) *Unanticipated bypass.* The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice).

(4) *Prohibition of bypass.* (i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

[122.41(m)(4)(i)(B) revised by 49 FR 38046, September 26, 1984]

[Sec. 122.41(m)(4)(i)]

(C) The permittee submitted notices as required under paragraph (m)(3) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

(n) *Upset*—(1) *Definition*. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(2) *Effect of an upset*. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(3) *Conditions necessary for a demonstration of upset*. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;

[122.41(n)(3)(i) amended by 49 FR 38046, September 26, 1984]

(ii) The permitted facility was at the time being properly operated; and

(iii) The permittee submitted notice of the upset as required in paragraph (1)(6)(ii)(B) of this section (24 hour notice).

(iv) The permittee complied with any remedial measures required under paragraph (d) of this section.

(4) *Burden of proof*. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(Information collection requirements in paragraph (e)(i) were approved by the Office of Management and Budget under control number 2040-0047).

[122.41 amended by 50 FR 4513, January 31, 1985]

§ 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25).

The following conditions, in addition to those set forth in § 122.41, apply to all NPDES permits within the categories specified below:

(a) *Existing manufacturing, commercial, mining, and silvicultural dischargers*. In addition to the reporting requirements under § 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

[122.42(a)(1) introductory text amended by 49 FR 38046, September 26, 1984]

(i) One hundred micrograms per liter (100 µg/l);

(ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with § 122.21(g)(7); or

[122.42(a)(1)(iii) amended by 49 FR 38046, September 26, 1984]

(iv) The level established by the Director in accordance with § 122.44(f).

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) Five hundred micrograms per liter (500 µg/l);

(ii) One milligram per liter (1 mg/l) for antimony;

(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with § 122.21(g)(7).

(iv) The level established by the Director in accordance with § 122.44(f).

[122.42(a)(2) revised by 49 FR 38046, September 26, 1984]

(b) *Publicly owned treatment works*. All POTWs must provide adequate notice to the Director of the following:

(1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to sections 301 or 306 of CWA if it were directly discharging those pollutants; and

(2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(3) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(Information collection requirements in paragraph (a) were approved by the Office of Management and Budget under control number 2040-0045).

[122.42 amended by 50 FR 4513, January 31, 1985]

§ 122.43 Establishing permit conditions (applicable to State programs, see § 123.25).

(a) In addition to conditions required in all permits (§§ 122.41 and 122.42), the Director shall establish conditions, as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of CWA and regulations. These shall include conditions under §§ 122.46 (duration of permits), 122.47(a) (schedules of compliance), 122.48 (monitoring), and for EPA permits only 122.47(b) (alternates schedule of compliance) and 122.49 (considerations under Federal law).

(b)(1) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in § 124.86(c) for NPDES permits being processed under Subparts E or F of Part 124). Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Director where new requirements become effective during the permitting process and are

of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 122.62.

(2) New or reissued permits, and to the extent allowed under § 122.62 modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in §§ 122.44 and 122.45.

(c) *Incorporation.* All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

§ 122.44 Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs, see § 123.25).

In addition to the conditions established under § 122.43(a), each NPDES permit shall include conditions meeting the following requirements when applicable.

(a) *Technology-based effluent limitations and standards* based on effluent limitations and standards promulgated under section 301 of CWA or new source performance standards promulgated under section 306 of CWA, on case-by-case effluent limitations determined under section 402(a)(1) of CWA, or on a combination of the two, in accordance with § 125.3. For new sources or new dischargers, these technology based limitations and standards are subject to the provisions of § 122.29(d) (protection period).

(b) *Other effluent limitations and standards* under sections 301, 302, 303, 307, 318, and 405 of CWA. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Director shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition. See also § 122.41(a).

(c) *Reopener clause:* for any discharger within a primary industry category (see Appendix A), requirements

under section 307(a)(2) of CWA as follows:

(1) On or before June 30, 1981: (i) If applicable standards or limitations have not yet been promulgated, the permit shall include a condition stating that, if an applicable standard or limitation is promulgated under sections 301(b)(2) (C) and (D), 304(b)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.

(ii) If applicable standards or limitations have been promulgated or approved, the permit shall include those standards or limitations. (If EPA approves existing effluent limitations or decides not to develop new effluent limitations, it will publish a notice in the *FEDERAL REGISTER* that the limitations are "approved" for the purpose of this regulation.)

[122.44(c)(1)(ii) corrected by 50 FR 6940, February 19, 1985]

(2) On or after the statutory deadline set forth in sections 301(b)(2) (A), (C), and (E) of CWA, any permit issued shall include effluent limitations to meet the requirements of sections 301(b)(2) (A), (C), (D), (E), (F), whether or not applicable effluent limitations guidelines have been promulgated or approved. These permits need not incorporate the clause required by paragraph (c)(1) of this section.

[122.44(c)(2) revised by 49 FR 31842, August 8, 1984]

(3) The Director shall promptly modify or revoke and reissue any permit containing the clause required under paragraph (c)(1) of this section to incorporate an applicable effluent standard or limitation under sections 301(b)(2) (C) and (D), 304(b)(2), and 307(a)(2) which is promulgated or approved after the permit is issued if that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit.

(d) *Water quality standards and State requirements:* any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318, and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of CWA;

(2) Attain or maintain a specified water quality through water quality related effluent limits established under section 302 of CWA;

(3) Conform to the conditions to a State certification under section 401 of the CWA that meets the requirements of § 124.53 when EPA is the permitting authority. If a State certification is stayed by a court of competent jurisdiction or an appropriate State board or agency, EPA shall notify the State that the Agency will deem certification waived unless a finally effective State certification is received within sixty days from the date of the notice. If the State does not forward a finally effective certification within the sixty day period, EPA shall include conditions in the permit that may be necessary to meet EPA's obligation under section 301(b)(1)(C) of the CWA:

[122.44(d)(3) revised by 49 FR 38046, September 26, 1984]

(4) Conform to applicable water quality requirements under section 401(a)(2) of CWA when the discharge affects a State other than the certifying State;

(5) Incorporate any more stringent limitations, treatment standards, or schedule of compliance requirements established under Federal or State law or regulations in accordance with section 301(b)(1)(C) of CWA;

(6) Ensure consistency with the requirements of a Water Quality Management plan approved by EPA under section 208(b) of CWA;

(7) Incorporate section 403(c) criteria under Part 125, Subpart M, for ocean discharges;

(8) Incorporate alternative effluent limitations or standards where warranted by "fundamentally different factors," under 40 CFR Part 125, Subpart D;

(9) Incorporate any other appropriate requirements, conditions, or limitations (other than effluent limitations) into a new source permit to the extent allowed by the National Environmental Policy Act, 42 U.S.C. 4321 *et seq.* and section 511 of the CWA, when EPA is the permit issuing authority. (See § 122.29(c)).

[122.44(d)(9) amended by 49 FR 38046, September 26, 1984]

(e) *Toxic pollutants.* Limitations established under paragraphs (a), (b), or (d) of this section, to control pollutants meeting the criteria listed in paragraph (e)(1) of this section. Limitations will be established in accordance with paragraph (e)(2) of this section.

[Sec. 122.44(e)]

tion. An explanation of the development of these limitations shall be included in the fact sheet under § 124.56(b)(1)(i).

[122.44(e) corrected by 50 FR 6940, February 19, 1985]

(1) Limitations must control all toxic pollutants which:

The Director determines (based on information reported in a permit application under § 122.21(g)(7) or (10) or in a notification under § 122.42(a)(1) or on other information) are or may be discharged at a level greater than the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under § 125.3(c); or

[Former 122.44(e)(1)(i) redesignated as (e)(1) and (e)(1)(ii) deleted by 49 FR 38046, September 26, 1984]

(2) The requirement that the limitations control the pollutants meeting the criteria of paragraph (e)(1) of this section will be satisfied by:

(i) Limitations on those pollutants;

or

(ii) Limitations on other pollutants which, in the judgment of the Director, will provide treatment of the pollutants under paragraph (e)(1) of this section to the levels required by § 125.3(c).

(f) *Notification level.* A "notification level" which exceeds the notification level of § 122.42(a)(1)(i), (ii), or (iii), upon a petition from the permittee or on the Director's initiative. This new notification level may not exceed the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under § 125.3(c)

(g) *Twenty-four hour reporting:*

Pollutants for which the permittee must report violations of maximum daily discharge limitations under § 122.41(1)(6)(ii)(C) (24-hour reporting) shall be listed in the permit. This list shall include any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.

(h) *Durations for permits, as set forth in § 122.46.*

(i) *Monitoring requirements:* In addition to § 122.48, the following monitoring requirements:

(1) To assure compliance with permit limitations, requirements to monitor:

(i) The mass (or other measurement specified in the permit) for each pollutant limited in the permit,

(ii) The volume of effluent discharged from each outfall;

(iii) Other measurements as appropriate; including pollutants in internal waste streams under § 122.45(i), pollutants in intake water for net limitations under § 122.45(f); frequency, rate of discharge, etc., for noncontinuous discharges under § 122.45(e); and pollutants subject to notification requirements under § 122.42(a).

(iv) According to test procedures approved under 40 CFR Part 136 for the analyses of pollutants having approved methods under that Part, and according to a test procedure specified in the permit for pollutants with no approved methods.

(2) Requirements to report monitoring results with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.

(j) *Pretreatment program for POTWs:* requirements for POTWs to:

(1) Identify, in terms of character and volume of pollutants, any significant indirect dischargers into the POTW subject to pretreatment standards under section 307(b) of CWA and 40 CFR Part 403.

(2) Submit a local program when required by and in accordance with 40 CFR Part 403 to assure compliance with pretreatment standards to the extent applicable under section 307(b). The local program shall be incorporated into the permit as described in 40 CFR Part 403. The program shall require all indirect dischargers to the POTW to comply with the reporting requirements of 40 CFR Part 403.

(k) *Best management practices* to control or abate the discharge of pollutants when:

(1) Authorized under section 304(e) of CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities;

(2) Numeric effluent limitations are infeasible, or

(3) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of CWA.

(l) *Reissued permits.* (1) Except as provided in paragraph (i)(2) of this section when a permit is renewed or reissued, interim limitations, standards or conditions must be at least as stringent as the final limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based

have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under § 122.62).

[122.44(l)(1) corrected by 50 FR 6940, February 19, 1985; 50 FR 7912, February 27, 1985]

(2) When effluent limitations were imposed under section 402(a)(1) of CWA in a previously issued permit and these limitations are more stringent than the subsequently promulgated effluent guidelines, this paragraph shall apply unless:

(i) The discharger has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations. In this case the limitations in the renewed or reissued permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by the subsequently promulgated effluent limitation guidelines);

(ii) In the case of an approved State, State law prohibits permit conditions more stringent than an applicable effluent limitation guideline;

(iii) The subsequently promulgated effluent guidelines are based on best conventional pollutant control technology (section 301(b)(2)(E) of CWA);

(iv) The circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under § 122.62; or

(v) There is increased production at the facility which results in significant reduction in treatment efficiency, in which case the permit limitations will be adjusted to reflect any decreased efficiency resulting from increased production and raw waste loads, but in no event shall permit limitations be less stringent than those required by subsequently promulgated standards and limitations.

(m) *Privately owned treatment works:* For a privately owned treatment works, any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this Part. Alternatively, the Director may issue

separate permits to the treatment works and to its users, or may require a separate permit application from any user. The Director's decision to issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works.

(n) *Grants*: Any conditions imposed in grants made by the Administrator to POTWs under sections 201 and 204 of CWA which are reasonably necessary for the achievement of effluent limitations under section 301 of CWA.

(o) *Sewage sludge*: Requirements under section 405 of CWA governing the disposal of sewage sludge from publicly owned treatment works, in accordance with any applicable regulations.

(p) *Coast Guard*: when a permit is issued to a facility that may operate at certain times as a means of transportation over water, a condition that the discharge shall comply with any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, that establish specifications for safe transportation, handling, carriage, and storage of pollutants.

(q) *Navigation*: any conditions that the Secretary of the Army considers necessary to ensure that navigation and anchorage will not be substantially impaired, in accordance with § 124.58.

§ 122.45 Calculating NPDES permit conditions (applicable to State NPDES programs, see § 123.25).

(a) *Outfalls and discharge points*. All permit effluent limitations, standards and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided under § 122.44(j)(2) (BMPs where limitations are infeasible) and paragraph (i) of this section (limitations on internal waste streams).

(b) *Production-based limitations*. (1) In the case of POTWs, permit limitations, standards, or prohibitions shall be calculated based on design flow.

[122.45(b)(2) revised by 49 FR 38046, September 26, 1984]

(2)(i) Except in the case of POTWs or as provided in paragraph (b)(2)(ii) of this section, calculation of any permit limita-

tions, standards, or prohibitions which are based on production (or other measure of operation) shall be based not upon the designed production capacity but rather upon a reasonable measure of actual production of the facility. For new sources or new dischargers, actual production shall be estimated using projected production. The time period of the measure of production shall correspond to the time period of the calculated permit limitations; for example, monthly production shall be used to calculate average monthly discharge limitations.

(ii)(A)(1) The Director may include a condition establishing alternate permit limitations, standards, or prohibitions based upon anticipated increase (not to exceed maximum production capability) or decreased production levels.

(2) *For the automotive manufacturing industry* only, the Regional Administrator shall, and the State Director may establish a condition under paragraph (b)(2)(ii)(A)(1) of this section if the applicant satisfactorily demonstrates to the Director at the time the application is submitted that its actual production, as indicated in paragraph (b)(2)(i) of this section, is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

(B) If the Director establishes permit conditions under paragraph (b)(2)(ii)(A) of this section:

(1) The permit shall require the permittee to notify the Director at least two business days prior to a month in which the permittee expects to operate at a level higher than the lowest production level identified in the permit. The notice shall specify the anticipated level and the period during which the permittee expects to operate at the alternate level. If the notice covers more than one month, the notice shall specify the reasons for the anticipated production level increase. New notice of discharge at alternate levels is required to cover a period or production level not covered by prior notice or, if during two consecutive months otherwise covered by a notice, the production level at the permitted facility does not in fact meet the higher level designated in the notice.

(2) The permittee shall comply with the limitations, standards, or

prohibitions that correspond to the lowest level of production specified in the permit, unless the permittee has notified the Director under paragraph (b)(2)(ii)(B)(1) of this section, in which case the permittee shall comply with the lower of the actual level of production during each month or the level specified in the notice.

(3) The permittee shall submit with the DMR the level of production that actually occurred during each month and the limitations, standards, or prohibitions applicable to that level of production.

[122.45(c) revised by 49 FR 38046, September 26, 1984]

(c) *Metals*. All permit effluent limitations, standards, or prohibitions for a metal shall be expressed in terms of "total recoverable metal" as defined in 40 CFR Part 136 unless:

(1) An applicable effluent standard or limitation has been promulgated under the CWA and specifies the limitation for the metal in the dissolved or valent or total form; or

(2) In establishing permit limitations on a case-by-case basis under § 125.3, it is necessary to express the limitation on the metal in the dissolved or valent or total form to carry out the provisions of the CWA; or

(3) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium).

(d) *Continuous discharges*. For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as:

(1) Maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works; and

(2) Average weekly and average monthly discharge limitations for POTWs.

(e) *Non-continuous discharges*. Discharges which are not continuous, as defined in § 122.2, shall be particularly described and limited, considering the following factors, as appropriate:

(1) Frequency (for example, a batch discharge shall not occur more than once every 3 weeks);

(2) Total mass (for example, not to exceed 100 kilograms of zinc and 200

[Sec. 122.45(e)(2)]

kilograms of chromium per batch discharge);

(3) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 kilograms of zinc per minute); and

(4) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/l zinc or more than 250 grams (¼ kilogram) of zinc in any discharge).

(f) *Mass limitations.* (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or

(iii) If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.

[122.45(g) revised by 49 FR 38046, September 26, 1984]

(g) *Pollutants in intake water.*

(1) Upon request of the discharger, technology-based effluent limitations or standards shall be adjusted to reflect credit for pollutants in the discharger's intake water if:

(i) The applicable effluent limitations and standards contained in 40 CFR Subchapter N specifically provide that they shall be applied on a net basis; or

(ii) The discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limitations and standards would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters.

(2) Credit for generic pollutants such as biochemical oxygen demand (BOD) or total suspended solids (TSS) should not be granted unless the permittee demonstrates that the constituents of

the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

(3) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with permit limits.

(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.

(5) This section does not apply to the discharge of raw water clarifier sludge generated from the treatment of intake water.

[122.45(h) deleted and (i) redesignated as (h) by 49 FR 38046, September 26, 1984]

(h) *Internal waste streams.* (1) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required by § 122.44(i) shall also be applied to the internal waste streams.

(2) Limits on internal waste streams will be imposed only when the fact sheet under § 124.56 sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under 10 meters of water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

(i) *Disposal of pollutants into wells, into POTWs or by land application.* Permit limitations and standards shall be calculated as provided in § 122.50.

[122.45(j) redesignated as (i) by 49 FR 38046, September 26, 1984]

(Information collection requirements in paragraph (b) were approved by the Office of Management and Budget under control number 2040-0077).

[122.45 amended by 50 FR 4513, January 31, 1985]

§ 122.46 Duration of permits (applicable to State programs, see § 123.25).

(a) NPDES permits shall be effective for a fixed term not to exceed 5 years.

(b) Except as provided in § 122.6, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

[122.46(b) corrected by 50 FR 6940, February 19, 1985]

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

(d) A permit may be issued to expire on or after the statutory deadline set forth in section 301(b)(2) (A), (C), and (E) (July 1, 1984), if the permit includes effluent limitations to meet the requirements of sections 301(b)(2) (A), (C), (D), (E), and (F), whether or not applicable effluent limitations guidelines have been promulgated or approved.

[Former 122.46(d) removed and former (e) revised and redesignated as (d) by 49 FR 31842, August 8, 1984]

(e) A determination that a particular discharger falls within a given industrial category for purposes of setting a permit expiration date under paragraph (d) of this section is not conclusive as to the discharger's inclusion in that industrial category for any other purposes, and does not prejudice any rights to challenge or change that inclusion at the time that a permit based on that determination is formulated.

[Former 122.46 (f) revised and redesignated as (e) by 49 FR 31842, August 8, 1984]

§ 122.47 Schedules of compliance.

(a) *General (applicable to State programs, see § 123.25).* The permit may, when appropriate, specify a schedule of compliance leading to compliance with CWA and regulations.

(1) *Time for compliance.* Any schedules of compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA.

(2) The first NPDES permit issued to a new source or a new discharger shall contain a schedule of compliance only when necessary to allow a reasonable opportunity to attain compliance with requirements issued or revised after commencement of construction but less than three years before commencement of the relevant discharge. For recommending dischargers, a schedule of compliance shall be available only

when necessary to allow a reasonable opportunity to attain compliance with requirements issued or revised less than three years before recommencement of discharge.

[122.47(a)(2) revised by 49 FR 38046, September 26, 1984]

(3) *Interim dates.* Except as provided in paragraph (b)(1)(ii), if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

NOTE: Examples of interim requirements include: (a) submit a complete Step 1 construction grant (for POTWs); (b) let a contract for construction of required facilities; (c) commence construction of required facilities; (d) complete construction of required facilities.

(4) *Reporting.* The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing of its compliance or noncompliance with the interim or final requirements, or submit progress reports if paragraph (a)(3)(ii) is applicable.

[122.47(a)(4) corrected by 50 FR 6940, February 19, 1985]

(b) *Alternative schedules of compliance.* An NPDES permit applicant or permittee may cease conducting regulated activities (by terminating of direct discharge for NPDES sources) rather than continuing to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before non-compliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements no later than the statutory deadline.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements, no later than the statutory deadline;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements no later than the statutory deadline.

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as a resolution of the board of directors of a corporation.

§ 122.48 Requirements for recording and reporting of monitoring results (applicable to State programs, see § 123.25).

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in § 122.44. Reporting shall be no less frequent than specified in the above regulation.

[122.48(c) corrected by 50 FR 6940, February 19, 1985]

§ 122.49 Considerations under Federal law.

[122.49 introductory paragraph revised by 48 FR 39619, September 1, 1983]

The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed.

(a) *The Wild and Scenic Rivers Act*, 16 U.S.C. 1273 *et seq.* Section 7 of the Act prohibits the Regional Administrator from assisting by license or otherwise the construction of any water resources project that would have a direct, adverse effect on the values for which a national wild and scenic river was established.

(b) *The National Historic Preservation Act of 1966*, 16 U.S.C. 470 *et seq.* Section 106 of the Act and implementing regulations (36 CFR Part 800) require the Regional Administrator, before issuing a license, to adopt measures when feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

(c) *The Endangered Species Act*, 16 U.S.C. 1531 *et seq.* Section 7 of the Act and implementing regulations (50 CFR Part 402) require the Regional Administrator to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

(d) *The Coastal Zone Management Act*, 16 U.S.C. 1451 *et seq.* Section 307(c) of the Act and implementing regulations

[Sec. 122.49(d)]

(15 CFR Part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

(e) *The Fish and Wildlife Coordination Act*, 16 U.S.C. 661 *et seq.*, requires that the Regional Administrator, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

(f) *Executive orders*. [Reserved.]

(g) The National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*, may require preparation of an Environmental Impact Statement and consideration of EIS-related permit conditions (other than effluent limitations) as provided in § 122.29(c).

[122.49(g) amended by 49 FR 38046, September 26, 1984]

§ 122.50 *Disposal of pollutants into wells, into publicly owned treatment works or by land application (applicable to State NPDES programs, see § 123.25).*

(a) When part of a discharger's process wastewater is not being discharged into waters of the United States or contiguous zone because it is disposed into a well, into a POTW, or by land application thereby reducing the flow or level of pollutants being discharged into waters of the United States, applicable effluent standards and limitations for the discharge in an NPDES permit shall be adjusted to reflect the reduced raw waste resulting from such disposal. Effluent limitations and standards in the permit shall be calculated by one of the following methods:

(1) If none of the waste from a particular process is discharged into waters of the United States, and effluent limitations guidelines provide separate allocation for wastes from that process, all allocations for the process shall be eliminated from calculation of permit effluent limitations or standards.
[122.50(a)(2) revised by 49 FR 38046, September 26, 1984]

(2) In all cases other than those described in paragraph (a)(1) of this section, effluent limitations shall be adjusted by multiplying the effluent limitation derived by applying effluent limitation guidelines to the total waste stream by the amount of wastewater flow to be treated and discharged into waters of the United States, and dividing the result by the total wastewater flow. Effluent limitations and standards so calculated may be further adjusted under Part 125, Subpart D to make them more or less stringent if discharges to wells, publicly owned treatment works, or by land application change the character or treatability of the pollutants being discharged to receiving waters. This method may be algebraically expressed as:

$$P = \frac{E \times N}{T}$$

where P is the permit effluent limitation, E is the limitation derived by applying effluent guidelines to the total wastestream, N is the wastewater flow to be treated and discharged to waters of the United States, and T is the total wastewater flow.

(b) Paragraph (a) of this section does not apply to the extent that promulgated effluent limitations guidelines:

- (1) Control concentrations of pollutants discharged but not mass; or
- (2) Specify a different specific technique for adjusting effluent limitations to account for well injection, land application, or disposal into POTWs.

(c) Paragraph (a) of this section does not alter a discharger's obligation to meet any more stringent requirements established under §§ 122.41, 122.42, 122.43, and 122.44.

Subpart D—Transfer, Modification, Revocation and Reissuance, and Termination of Permits

§ 122.61 *Transfer of permits (applicable to State programs, see § 123.25).*

(a) *Transfers by modification.* Except as provided in paragraph (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 122.62(b)(2)), or a minor modification made (under § 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.

(b) *Automatic transfers.* As an alternative to transfers under paragraph (a) of this section, any NPDES permit may be automatically transferred to a new permittee if:

(1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (b)(2) of this section;

(2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

(3) The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under the subparagraph may also be a minor modification under § 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

§ 122.62 *Modification or revocation and reissuance of permits (applicable to State programs, see § 123.25).*

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 122.41), receives a request for modification or revocation and reissuance under § 124.5, or conducts a review of the permit file) he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See § 124.5(c)(2). If cause does not exist under this section or § 122.63, the Director shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in § 122.63 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in Part 124 (or proce-

dures of an approved State program) followed.

(a) *Causes for modification.* The following are causes for modification but not revocation and reissuance of permits except when the permittee requests or agrees.

(1) *Alterations.* There are material and substantial alteration or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

[*Note.* — Certain reconstruction activities may cause the new source provisions of §122.29 to be applicable.]

(2) *Information.* The Director has received new information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. For NPDES general permits (§122.28) this cause includes any information indicating that cumulative effects on the environment are unacceptable.

(3) *New regulations.* The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

(i) For promulgation of amended standards or regulations, when:

(A) The permit condition requested to be modified was based on a promulgated effluent limitation guideline, EPA approved or promulgated water quality standards, or the Secondary Treatment Regulations under Part 133; and
[122.62(a)(3)(i)(A) amended by 49 FR 37009, September 20, 1984]

(B) EPA has revised, withdrawn, or modified that portion of the regulation or effluent limitation guideline on which the permit condition was based, or has approved a State action with regard to a water quality standard on which the permit condition was based; and

(C) A permittee requests modification in accordance with §124.5 within ninety (90) days after *Federal Register*

notice of the action on which the request is based.

(ii) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations or effluent limitation guidelines, if the remand and stay concern that portion of the regulations or guidelines on which the permit condition was based and a request is filed by the permittee in accordance with §124.5 within ninety (90) days of judicial remand.

(iii) For changes based upon modified State certifications of NPDES permits, see §124.55(b).

(4) *Compliance schedules.* The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. However, in no case may an NPDES compliance schedule be modified to extend beyond an applicable CWA statutory deadline. See also §122.63(c) (minor modifications) and paragraph (a)(14) of this section (NPDES innovative technology).

(5) When the permittee has filed a request for a variance under CWA section 301(c), 301(g), 301(h), 301(i), 301(k), or 316(a) or for "fundamentally different factors" within the time specified in §§122.21 or 125.27(a).

[122.62(a)(5) revised by 49 FR 25981, June 25, 1984]

(6) *307(a) toxics.* When required to incorporate an applicable 307(a) toxic effluent standard or prohibition (see §122.44(b)).

(7) *Recapener.* When required by the "recapener" conditions in a permit, which are established in the permit under §122.44(b) (for CWA toxic effluent limitations) or 40 CFR 403.10(d) (pretreatment program), except that when a modification clause established under 40 CFR 403.10(d) relates to the incorporation in a POTW's permit of a pretreatment program approved in accordance with the procedures in 40 CFR 403.11, such modification shall be deemed a minor modification subject to the procedures in §122.63.

[122.62(a)(7) revised by 51 FR 20430, June 4, 1986]

(8)(i) *Net limits.* Upon request of a considered in the development of a sub-permittee who qualifies for effluent quarterly promulgated effluent limitations

limitations on a net basis under §122.45(h).

(ii) When a discharger is no longer eligible for net limitations, as provided in §122.45(h)(1)(ii)(B).

(9) *Pretreatment.* As necessary under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program).

(10) *Failure to notify.* Upon failure of an approved State to notify, as required by section 402(b)(3), another State whose waters may be affected by a discharge from the approved State.

(11) *Non-limited pollutants.* When the level of discharge of any pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under §125.3(c).

[122.62(a)(12) removed and (13)—(15) redesignated as (12)—(14) by 49 FR 38046, September 26, 1984]

(12) *Notification levels.* To establish a "notification level" as provided in §122.44(f).

(13) *Compliance schedules.* To modify a schedule of compliance to reflect the time lost during construction of an innovative or alternative facility, in the case of a POTW which has received a grant under section 202(a)(3) of CWA for 100% of the costs to modify or replace facilities constructed with a grant for innovative and alternative wastewater technology under section 202(a)(2). In no case shall the compliance schedule be modified to extend beyond an applicable CWA statutory deadline for compliance.

(14) When the permit becomes final and effective on or after August 19, 1981, if the permittee shows good cause for the modification, to conform to changes respecting the following regulations issued under the Settlement Agreement dated November 16, 1981, in connection with *Natural Resources Defense Council v. EPA*, No. 80-1607 and consolidated cases: §122.41(c) and (d).

[122.62(a)(15) added by 49 FR 39619, September 1, 1983; redesignated as (14) by 49 FR 38046, September 26, 1984]

[New 122.62(a)(15)—(18) added by 49 FR 38046, September 26, 1984]

(15) When the permittee's effluent limitations were imposed under section 402(a)(1) of the CWA and the permittee demonstrates operation and maintenance costs that are totally disproportionate from the operation and maintenance costs

considered in the development of a sub-permittee who qualifies for effluent quarterly promulgated effluent limitations

[Sec. 122.62(a)(15)]

guideline, but in no case may the limitations be made less stringent than the subsequent guideline.

(16) To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions.

(17) When the discharger has installed the treatment technology considered by the permit writer in setting effluent limitations imposed under section 402(a)(1) of the CWA and has properly operated and maintained the facilities but nevertheless has been unable to achieve those effluent limitations. In this case, the limitations in the modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by a subsequently promulgated effluent limitations guideline).

(18) When the permit becomes final and effective on or after March 9, 1982, and the permittee applies for the modification no later than January 24, 1985, if the permittee shows good cause in its request and that it qualifies for the modification, to conform to changes respecting the following regulations issued under that Settlement Agreement:

40 CFR 122.45(b)

40 CFR 122.45(c)

40 CFR 122.50

(b) *Causes for modification or revocation and reissuance.* The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under § 122.64, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see § 122.41(i)(3)) of a proposed transfer of the permit. A permit also may be modified to reflect a transfer after the effective date of an automatic transfer (§ 122.61(b)) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

(Information collection requirements in paragraph (a) were approved by the Office of Management and Budget under control number 2040-0068)

[122.62 amended by 50 FR 4513, January 31, 1985]

§ 122.63 Minor modifications of permits.

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without follow-

ing the procedures of Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with Part 124 draft permit and public notice as required in § 122.62. Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or

(d) Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.

(e)(1) Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge under § 122.29.

(2) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

(f) When the permit becomes final and effective on or after March 9, 1982, conform to changes respecting §§ 122.41(e), 122.41(i), 122.41(m)(4)(i)(B), 122.41(n)(3)(i) and 122.42(a) issued September 26, 1984.

[122.63(f) added by 49 FR 38046, September 26, 1984]

(g) Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 as enforceable conditions of the POTW's permit.

[122.63(g) added by 51 FR 20430, June 4, 1986]

§ 122.64 Termination of permits (applicable to State programs, see § 123.25).

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;

[122.64(a)(2), (3) corrected by 50 FR 6940, February 19, 1985]

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or

(4) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

(b) The Director shall follow the applicable procedures in Part 124 or State procedures in terminating any NPDES permit under this section.

APPENDIX A—NPDES PRIMARY INDUSTRY CATEGORIES

Any permit issued after June 30, 1981 to dischargers in the following categories shall include effluent limitations and a compliance schedule to meet the requirements of section 301(b)(2)(A), (C), (D), (E) and (F) of CWA, whether or not applicable effluent limitations guidelines have been promulgated. See §§ 122.44 and 122.46.

Industry Category

Adhesives and sealants
Aluminum forming
Auto and other laundries
Battery manufacturing
Coal mining
Coil coating
Copper forming
Electrical and electronic components
Electroplating
Explosives manufacturing
Foundries
Gum and wood chemicals
Inorganic chemicals manufacturing
Iron and steel manufacturing
Leather tanning and finishing
Mechanical products manufacturing
Nonferrous metals manufacturing
Ore mining
Organic chemicals manufacturing
Paint and ink formulation
Pesticides
Petroleum refining
Pharmaceutical preparations
Photographic equipment and supplies
Plastics processing
Plastic and synthetic materials manufacturing
Porcelain enameling
Printing and publishing
Pulp and paper mills
Rubber processing
Soap and detergent manufacturing
Steam electric power plants

Textile Mills
Timber Products Processing

Appendix B—Criteria for Determining a Concentrated Animal Feeding Operation (§ 122.23)

An animal feeding operation is a concentrated animal feeding operation for purposes of § 122.23 if either of the following criteria are met.

(a) More than the numbers of animals specified in any of the following categories are confined:

- (1) 1,000 slaughter and feeder cattle,
- (2) 700 mature dairy cattle (whether milked or dry cows),
- (3) 2,500 swine each weighing over 25 kilograms (approximately 55 pounds),
- (4) 500 horses,
- (5) 10,000 sheep or lambs,
- (6) 55,000 turkeys,
- (7) 100,000 laying hens or broilers (if the facility has continuous overflow watering),
- (8) 30,000 laying hens or broilers (if the facility has a liquid manure system),
- (9) 5,000 ducks, or
- (10) 1,000 animal units; or

(b) More than the following number and types of animals are confined:

- (1) 300 slaughter or feeder cattle,
- (2) 200 mature dairy cattle (whether milked or dry cows),
- (3) 750 swine each weighing over 25 kilograms (approximately 55 pounds),
- (4) 150 horses,
- (5) 3,000 sheep or lambs,
- (6) 16,500 turkeys,
- (7) 30,000 laying hens or broilers (if the facility has continuous overflow watering),
- (8) 9,000 laying hens or broilers (if the facility has a liquid manure handling system),
- (9) 1,500 ducks, or
- (10) 300 animal units;

and either one of the following conditions are met: pollutants are discharged into navigable waters through a manmade ditch, flushing system or other similar man-made device; or pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Provided, however, that no animal feeding operation is a concentrated animal feeding operation as defined above if such animal feeding operation discharges only in the event of a 25 year, 24-hour storm event.

The term "animal unit" means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1,

plus the number of horses multiplied by 2.0.

The term "manmade" means constructed by man and used for the purpose of transporting wastes.

Appendix C—Criteria for Determining a Concentrated Aquatic Animal Production Facility (§ 122.24)

A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purposes of § 122.24 if it contains, grows, or holds aquatic animals in either of the following categories:

(a) Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:

(1) Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and

(2) Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.

(b) Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:

(1) Closed ponds which discharge only during periods of excess runoff; or

(2) Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

"Cold water aquatic animals" include, but are not limited to, the *Salmonidae* family of fish; e.g., trout and salmon.

"Warm water aquatic animals" include, but are not limited to, the *Ameiuride*, *Centrarchidae* and *Cyprinidae* families of fish; e.g., respectively, catfish, sunfish and minnows.

Appendix D—NPDES Permit Application Testing Requirements (§ 122.21)

TABLE I.—TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRIAL CATEGORY FOR EXISTING DISCHARGERS

Industrial category	GC/MS Fraction ¹			
	Volatile	Acid	Base/neutral	Pesticide
Adhesives and Sealants	.	.	.	.
Aluminum Forming	.	.	.	.
Auto and Other Laundries	.	.	.	.
Battery Manufacturing	.	.	.	.
Coal Mining	.	.	.	.
Coil Coating	.	.	.	.
Copper Forming	.	.	.	.

Industrial category	GC/MS Fraction ¹			
	Volatile	Acid	Base/neutral	Pesticide
Electric and Electronic Components	.	.	.	.
Electroplating	.	.	.	.
Explosives	.	.	.	.
Manufacturing	.	.	.	.
Foundries	.	.	.	.
Gum and Wood Chemicals	.	.	.	.
Inorganic Chemicals Manufacturing	.	.	.	.
Iron and Steel Manufacturing	.	.	.	.
Leather Tanning and Finishing	.	.	.	.
Mechanical Products Manufacturing	.	.	.	.
Nonferrous Metals Manufacturing	.	.	.	.
Ore Mining	.	.	.	.
Organic Chemicals Manufacturing	.	.	.	.
Paint and Ink Formulation	.	.	.	.
Pesticides	.	.	.	.
Petroleum Refining	.	.	.	.
Pharmaceutical Preparations	.	.	.	.
Photographic Equipment and Supplies	.	.	.	.
Plastic and Synthetic Materials Manufacturing	.	.	.	.
Plastic Processing	.	.	.	.
Porcelain Enameling	.	.	.	.
Printing and Publishing	.	.	.	.
Pulp and Paper Mills	.	.	.	.
Rubber Processing	.	.	.	.
Soap and Detergent Manufacturing	.	.	.	.
Steam Electric Power Plants	.	.	.	.
Textile Mills	.	.	.	.
Timber Products Processing	.	.	.	.

¹The toxic pollutants in each fraction are listed in Table II.
²Testing required.

Table II.—Organic Toxic Pollutants in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

[Appendix D — Table II corrected by 50 FR 6940, February 19, 1985]

Volatiles

- 1V acrolein
- 2V acrylonitrile
- 3V benzene
- 5V bromoform
- 6V carbon tetrachloride
- 7V chlorobenzene
- 8V chlorodibromomethane
- 9V chloroethane
- 10V 2-chloroethylvinyl ether
- 11V chloroform
- 12V dichlorobromomethane
- 14V 1,1-dichloroethane
- 15V 1,2-dichloroethane
- 16V 1,1-dichloroethylene
- 17V 1,2-dichloropropane
- 18V 1,3-dichloropropylene
- 19V ethylbenzene

[Appendix D]

Table II.—Organic Toxic Pollutants in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

Volatiles

20V	methyl bromide
21V	methyl chloride
22V	methylene chloride
23V	1,1,2,2-tetrachloroethane
24V	tetrachloroethylene
25V	toluene
26V	1,2-trans-dichloroethylene
27V	1,1,1-trichloroethane
28V	1,1,2-trichloroethane
29V	trichloroethylene
31V	vinyl chloride

Acid Compounds

1A	2-chlorophenol
2A	2,4-dichlorophenol
3A	2,4-dimethylphenol
4A	4,6-dinitro-o-cresol
5A	2,4-dinitrophenol
6A	2-nitrophenol
7A	4-nitrophenol
8A	p-chloro-m-cresol
9A	pentachlorophenol
10A	phenol
11A	2,4,6-trichlorophenol

Base/Neutral

1B	acenaphthene
2B	acenaphthylene
3B	anthracene
4B	benzidine
5B	benzo(a)anthracene
6B	benzo(a)pyrene
7B	3,4-benzofluoranthene
8B	benzo(ghi)perylene
9B	benzo(k)fluoranthene
10B	bis(2-chloroethoxy)methane
11B	bis(2-chloroethyl)ether
12B	bis(2-chloroisopropyl)ether
13B	bis(2-ethylhexyl)phthalate
14B	4-bromophenyl phenyl ether
15B	butylbenzyl phthalate
16B	2-chloronaphthalene
17B	4-chlorophenyl phenyl ether
18B	chrysene
19B	dibenzo(a,h)anthracene
20B	1,2-dichlorobenzene
21B	1,3-dichlorobenzene
22B	1,4-dichlorobenzene
23B	3,3'-dichlorobenzidine
24B	diethyl phthalate
25B	dimethyl phthalate
26B	di-n-butyl phthalate
27B	2,4-dinitrotoluene
28B	2,6-dinitrotoluene
29B	di-n-octyl phthalate
30B	1,2-diphenylhydrazine (as azobenzene)
31B	fluoranthene
32B	fluorene
33B	hexachlorobenzene
34B	hexachlorobutadiene
35B	hexachlorocyclopentadiene
36B	hexachloroethane

37B	indeno(1,2,3-cd)pyrene
38B	isophorone
39B	naphthalene
40B	nitrobenzene
41B	N-nitrosodimethylamine
42B	N-nitrosodi-n-propylamine
43B	N-nitrosodiphenylamine
44B	phenanthrene
45B	pyrene
46B	1,2,4-trichlorobenzene

Pesticides

1P	aldrin
2P	alpha-BHC
3P	beta-BHC
4P	gamma-BHC
5P	delta-BHC
6P	chlordane
7P	4,4'-DDT
8P	4,4'-DDE
9P	4,4'-DDD
10P	dieldrin
11P	alpha-endosulfan
12P	beta-endosulfan
13P	endosulfan sulfate
14P	endrin
15P	endrin aldehyde
16P	heptachlor
17P	heptachlor epoxide
18P	PCB-1242
19P	PCB-1254
20P	PCB-1221
21P	PCB-1232
22P	PCB-1248
23P	PCB-1260
24P	PCB-1016
25P	toxaphene

Table III.—Other Toxic Pollutants: (Metals, Cyanide) and Total Phenols
[Table III head amended by 49 FR 38046, September 26, 1984]

Antimony, Total
Arsenic, Total
Beryllium, Total
Cadmium, Total
Chromium, Total
Copper, Total
Lead, Total
Mercury, Total
Nickel, Total
Selenium, Total
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total

Table IV.—Conventional and Nonconventional Pollutants Required To Be Tested by Existing Dischargers if Expected to be Present

Bromide
Chlorine, Total Residual
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite

Nitrogen, Total Organic
Oil and Grease
Phosphorus, Total
Radioactivity
Sulfate
Sulfide
Sulfite
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt, Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Manganese, Total
Tin, Total
Titanium, Total

Table V.—Toxic Pollutants and Hazardous Substances Required To Be Identified by Existing Dischargers if Expected To Be Present

[Appendix D — Table V, corrected by 50 FR 6940, February 19, 1985]

Toxic Pollutants

Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichloro
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural

[Appendix D]

NPDES PERMITS

Table V.—Toxic Pollutants and Hazardous Substances Required To Be Identified by Existing Dischargers if Expected To Be Presented, Contd.

Hazardous Substances

Guthion
Isoprene
Isopropanolamine Dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
TDE (Tetrachlorodiphenylethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

(Note.—The Environmental Protection Agency has suspended the requirements of §122.21(g)(7)(ii)(A) and Table I of Appendix D as they apply to certain industrial categories. The suspensions are as follows:

At 46 FR 2040, Jan. 8, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) as it applies to coal mines.

At 46 FR 22585, Apr. 20, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

1. Testing and reporting for all four organic fractions in the Greige Mills Subcategory of the Textile Mills industry (Subpart C—Low water use processing of 40 CFR Part 410), and testing and reporting for the pesticide fraction in all other subcategories of this industrial category.

2. Testing and reporting for the volatile, base/neutral and pesticide fractions in the Base and Precious Metals Subcategory of the Ore Mining and Dressing industry (Subpart B of 40 CFR Part 440), and testing and reporting

for all four fractions in all other subcategories of this industrial category.

3. Testing and reporting for all four GC/MS fractions in the Porcelain Enameling industry.

At 46 FR 35090, July 1, 1981, the Environmental Protection Agency suspended until further notice § 122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

1. Testing and reporting for the pesticide fraction in the Tall Oil Rosin Subcategory (Subpart D) and Rosin-Based Derivatives Subcategory (Subpart F) of the Gum and Wood Chemicals industry (40 CFR Part 454), and testing and reporting for the pesticide and base/neutral fractions in all other subcategories of this industrial category.

2. Testing and reporting for the pesticide fraction in the Leather Tanning and Finishing, Paint and Ink Formulation, and Photographic Supplies industrial categories.

3. Testing and reporting for the acid, base/neutral and pesticide fractions in the Petroleum Refining industrial category.

4. Testing and reporting for the pesticide fraction in the Papergrade Sulfite subcategories (Subparts J and U) of the Pulp and Paper industry (40 CFR Part 430); testing and reporting for the base/neutral and pesticide fractions in the following subcategories: Deink (Subpart Q), Dissolving Kraft (Subpart F), and Paperboard from Waste Paper (Subpart E); testing and reporting for the volatile, base/neutral and pesticide fractions in the following subcategories: BCT Bleached Kraft (Subpart H), Semi-Chemical (Subparts B and C), and Nonintegrated-Fine Papers (Subpart R); and testing and reporting for the acid, base/neutral, and pesticide fractions in the following subcategories: Fine Bleached Kraft (Subpart I), Dissolving Sulfite Pulp (Subpart K), Groundwood-Fine Papers (Subpart O), Market Bleached Kraft (Subpart C), Tissue from Wastepaper (Subpart T), and Nonintegrated-Tissue Papers (Subpart S).

5. Testing and reporting for the base/neutral fraction in the Once-Through Cooling Water, Fly Ash and Bottom Ash Transport Water process wastestreams of the Steam Electric Power Plant industrial category.

This revision continues these suspensions.]

For the duration of the suspensions, therefore, Table I effectively reads:

TABLE I.—TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRY CATEGORY

Industry category	GC/MS fraction ¹			
	Volatile	Acid	Neutral	Pesticide
Adhesives and sealants.....	(*)	(*)	(*)	(*)
Aluminum forming.....	(*)	(*)	(*)	(*)
Auto and other laundries.....	(*)	(*)	(*)	(*)
Battery manufacturing.....	(*)	(*)	(*)	(*)
Coal mining.....	(*)	(*)	(*)	(*)
Coil coating.....	(*)	(*)	(*)	(*)
Copper forming.....	(*)	(*)	(*)	(*)
Electric and electronic compounds.....	(*)	(*)	(*)	(*)
Electroplating.....	(*)	(*)	(*)	(*)
Explosives manufacturing.....	(*)	(*)	(*)	(*)
Foundries.....	(*)	(*)	(*)	(*)
Gum and wood (all subparts except D and F).....	(*)	(*)	(*)	(*)

TABLE I.—TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRY CATEGORY

Industry category	GC/MS fraction ¹			
	Volatile	Acid	Neutral	Pesticide
Subpart D—tall oil rosin.....	(*)	(*)	(*)	(*)
Subpart F—rosin-based derivatives.....	(*)	(*)	(*)	(*)
Inorganic chemicals manufacturing.....	(*)	(*)	(*)	(*)
Iron and steel manufacturing.....	(*)	(*)	(*)	(*)
Leather tanning and finishing.....	(*)	(*)	(*)	(*)
Mechanical products manufacturing.....	(*)	(*)	(*)	(*)
Nonferrous metals manufacturing.....	(*)	(*)	(*)	(*)
Ore mining (applies to the base and precious metals/subpart B).....	(*)	(*)	(*)	(*)
Organic chemicals manufacturing.....	(*)	(*)	(*)	(*)
Paint and ink formulation.....	(*)	(*)	(*)	(*)
Pesticides.....	(*)	(*)	(*)	(*)
Petroleum refining.....	(*)	(*)	(*)	(*)

*Testing required.
†The pollutants in each fraction are listed in item V-C.

Industry category	GC/MS fraction ¹			
	Volatile	Acid	Neutral	Pesticide
Pharmaceutical preparations.....	(*)	(*)	(*)	(*)
Photographic equipment and supplies.....	(*)	(*)	(*)	(*)
Plastic and synthetic materials manufacturing.....	(*)	(*)	(*)	(*)
Plastic processing.....	(*)	(*)	(*)	(*)
Porcelain enameling.....	(*)	(*)	(*)	(*)
Printing and publishing.....	(*)	(*)	(*)	(*)
Pulp and paperboard mills—see footnote ²	(*)	(*)	(*)	(*)
Rubber processing.....	(*)	(*)	(*)	(*)
Soap and detergent manufacturing.....	(*)	(*)	(*)	(*)
Steam electric power plants.....	(*)	(*)	(*)	(*)
Textile mills (subpart C—Greige Mills are exempt from this table).....	(*)	(*)	(*)	(*)
Timber products processing.....	(*)	(*)	(*)	(*)

²Pulp and Paperboard Mills.

Subpart #	GC/MS fractions			
	VOA	Acid	Base/neutral	Pesticides
A.....	—	—	—	(*)
B.....	—	—	—	(*)
C.....	—	—	—	(*)
D.....	—	—	—	(*)
E.....	—	—	—	(*)
F.....	—	—	—	(*)
G.....	—	—	—	(*)
H.....	—	—	—	(*)
I.....	—	—	—	(*)
J.....	—	—	—	(*)
K.....	—	—	—	(*)
L.....	—	—	—	(*)
M.....	—	—	—	(*)
N.....	—	—	—	(*)
O.....	—	—	—	(*)
P.....	—	—	—	(*)
Q.....	—	—	—	(*)
R.....	—	—	—	(*)
S.....	—	—	—	(*)
T.....	—	—	—	(*)
U.....	—	—	—	(*)

*Must test.
— Do not test unless "reason to believe" it is discharged.

² Subparts are defined in 40 CFR Part 430 [Appendix D]

ANEJO C-7

Subtítulo A

Resource Conservation and Recovery Act (RCRA)

General Provisions

Section 1004 (Definitions)

land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

"(4) The term 'Federal agency' means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

"(5) The term 'hazardous waste' means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may—

"(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

"(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

"(6) The term 'hazardous waste generation' means the act or process of producing hazardous waste.

"(7) The term 'hazardous waste management' means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

"(8) For purposes of Federal financial assistance (other than rural communities assistance), the term 'implementation' does not include the acquisition, leasing, construction, or modification of facilities or equipment or the acquisition, leasing, or improvement of land.

"(9) The term 'intermunicipal agency' means an agency established by two or more municipalities with responsibility for planning or administration of solid waste.

"(10) The term 'interstate agency' means an agency of two or more municipalities in different States, or an agency established by two or more States, with authority to provide for the management of solid wastes and serving two or more municipalities located in different States.

"(11) The term 'long-term contract' means, when used in relation to solid waste supply, a contract of sufficient duration to assure the viability of a resource recovery facility (to the extent that such viability depends upon solid waste supply).

"(12) The term 'manifest' means the form used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of disposal, treatment, or storage.

"(13) The term 'municipality' (A) means a city, town, borough, county, parish, district, or other public body created by or pursuant to State law, with responsibility for the planning or administration of solid waste management, or an Indian tribe or authorized tribal organization or Alaska Native village or organization, and (B) includes any rural community or unincorporated town or village or any other public entity for which an application for assistance is made by a State or political subdivision thereof.

"(14) The term 'open dump' means any facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 and which is not a facility for disposal of hazardous waste.

[1004(14) revised by PL 96-482]

"(15) The term 'person' means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

"(16) The term 'procurement item' means any device, good, substance, material, product, or other item whether real or personal property which is the subject of any purchase, barter, or other exchange made to procure such item.

"(17) The term 'procuring agency' means any Federal agency, or any State agency or agency of a political subdivision of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract.

"(18) The term 'recoverable' refers to the capability and likelihood of being recovered from solid waste for a commercial or industrial use.

"(19) The term 'recovered material' means waste material and byproducts which have been recovered or diverted from solid waste, but such terms does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

[1004(19) revised by PL 96-482]

"(20) The term 'recovered resources' means material or energy recovered from solid waste.

"(21) The term 'resource conservation' means reduction of the amounts of solid waste that are generated, reduction of overall resource consumption, and utilization of recovered resources.

"(22) The term 'resource recovery' means the recovery of material or energy from solid waste.

"(23) The term 'resource recovery system' means a solid waste management system which provides for collection, separation, recycling, and recovery of solid wastes, including disposal of nonrecoverable waste residues.

"(24) The term 'resource recovery facility' means any facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse.

"(25) The term 'regional authority' means the authority established or designated under section 4006.

"(26) The term 'sanitary landfill' means a facility for the disposal of solid waste which meets the criteria published under section 4004.

"(26A) The term 'sludge' means any solid, semisolid or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effects.

"(27) The term 'solid waste' means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

"(28) The term 'solid waste management' means the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.

"(29) The term 'solid waste management facility' includes (A) any resource recovery system or component thereof, (B) any system, program, or facility for resource conservation, and (C) any facility for the collection, source separation, storage, transportation, transfer, processing, treatment or disposal of solid wastes including hazardous wastes, whether such facility is associated with facilities generating such wastes or otherwise.

"(30) The terms 'solid waste planning,' 'solid waste management,' and 'comprehensive planning' include planning or management respecting resource recovery and resource conservation.

"(31) The term 'State' means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

"(32) The term 'State authority' means the agency established or designated under section 4007.

"(33) The term 'storage,' when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.

"(34) The term 'treatment,' when used in connection with hazardous waste, means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

"(35) The term 'virgin material' means a raw material, including previously unused copper, aluminum, lead, zinc, iron, or other metal or metal ore, any undeveloped resource that is, or with new technology will become, a source of raw materials.

"(36) The term 'used oil' means any oil which has been—

"(A) refined from crude oil,

"(B) used, and

"(C) as a result of such use, contaminated by physical or chemical impurities.

"(37) The term 'recycled oil' means any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes oil which is re-refined, reclaimed, burned, or reprocessed.

"(38) The term 'lubricating oil' means the fraction of crude oil which is sold for purposes of reducing friction in any industrial or mechanical device. Such term includes re-refined oil.

"(39) The term 're-refined oil' means used oil from which the physical and chemical contaminants acquired through previous use have been removed through a refining process.

[1004(36) through (39) added by PL 96-463]

"Governmental Cooperation

"Sec. 1005. (a) Interstate Cooperation.—The provisions of this Act to be carried out by States may be car-

ANEJO C-8

Subtítulo C

Resource Conservation and Recovery Act (RCRA)

Manejo de Desperdicios Peligrosos

man shall not affect any procedures for grievances, appeals, or administrative matters in any other provision of this Act, any other provision of law, or any Federal regulation.

"(d) **TERMINATION.**—The Office of the Ombudsman shall cease to exist 4 years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

[2008 added by PL 98-616]

"Subtitle C—Hazardous Waste Management

"Identification and Listing of Hazardous Waste

"Sec. 3001. (a) **Criteria for Identification or Listing.**—Not later than eighteen months after the date of the enactment of this Act, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subtitle, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

"(b)(1) **Identification and Listing.**—Not later than eighteen months after the date of enactment of this section, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate. The Administrator, in cooperation with the Agency for Toxic Substances and Disease Registry and the National Toxicology Program, shall also identify or list those hazardous wastes which shall be subject to the provisions of this subtitle solely because of the presence in such wastes of certain constituents (such as identified carcinogens, mutagens, or teratogens) at levels in excess of levels which endanger human health.

[3001(b)(1) designated by PL 96-482; amended by PL 98-616]

"(2)(A) Notwithstanding the provisions of paragraph (1) of this subsection, drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy shall be subject only to existing State or Federal regulatory programs in lieu of

subtitle C until at least 24 months after the date of enactment of the Solid Waste Disposal Act Amendments of 1980 and after promulgation of the regulations in accordance with subparagraphs (B) and (C) of this paragraph. It is the sense of the Congress that such State or Federal programs should include, for waste disposal sites which are to be closed, provisions requiring at least the following:

"(i) The identification through surveying, platting, or other measures, together with recordation of such information on the public record, so as to assure that the location where such wastes are disposed of can be located in the future; except however, that no such surveying, platting, or other measure identifying the location of a disposal site for drilling fluids and associated wastes shall be required if the distance from the disposal site to the surveyed or platted location to the associated well is less than two hundred lineal feet; and

"(ii) A chemical and physical analysis of a produced water and a composition of a drilling fluid suspected to contain a hazardous material, with such information to be acquired prior to closure and to be placed on the public record.

"(B) Not later than six months after completion and submission of the study required by section 8002(m) of this Act, the Administrator shall, after public hearings and opportunity for comment, determine either to promulgate regulations under this subtitle for drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy or that such regulations are unwarranted. The Administrator shall publish his decision in the Federal Register accompanied by an explanation and justification of the reasons for it. In making the decision under this paragraph, the Administrator shall utilize the information developed or accumulated pursuant to the study required under section 8002(m).

"(C) The Administrator shall transmit his decision, along with any regulations, if necessary, to both Houses of Congress. Such regulations shall take effect only when authorized by Act of Congress.

[3001(b)(2) added by PL 96-482]

"(3)(A) Notwithstanding the provisions of paragraph (1) of this subsection, each waste listed below shall, except as provided in subparagraph (B) of this paragraph, be subject only to regulation under other applicable provisions of Federal or State law in lieu of this subtitle until at least six months after the date of submission of the applicable study required to be conducted

RESOURCE RECOVERY ACT

under subsection (f), (n), (o), or (p) of section 8002 of this Act and after promulgation of regulations in accordance with subparagraph (C) of this paragraph:

"(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

"(ii) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore.

"(iii) Cement kiln dust waste.

"(B)(i) Owners and operators of disposal sites for wastes listed in subparagraph (A) may be required by the Administrator, through regulations prescribed under authority of section 2002 of this Act—

"(I) as to disposal sites for such wastes which are to be closed, to identify the locations of such sites through surveying, platting, or other measures, together with recordation of such information on the public record, to assure that the locations where such wastes are disposed of are known and can be located in the future, and

"(II) to provide chemical and physical analysis and composition of such wastes, based on available information, to be placed on the public record.

"(ii)(I) In conducting any study under subsection (f), (n), (o), or (p), of section 8002 of this Act, any officer, employee, or authorized representative of the Environmental Protection Agency, duly designated by the Administrator, is authorized, at reasonable times and as reasonably necessary for the purposes of such study, to enter any establishment where any waste subject to such study is generated, stored, treated, disposed of, or transported from; to inspect, take samples, and conduct monitoring and testing; and to have access to and copy records relating to such waste. Each such inspection shall be commenced and completed with reasonable promptness. If the officer, employee, or authorized representative obtains any samples prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and if requested a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, or monitoring and testing performed, a copy of the results shall be furnished promptly to the owner, operator, or agent in charge.

"(II) Any records, reports, or information obtained from any person under subclause (I) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, to which the Administrator has access under this subparagraph if made public, would divulge information entitled to protection under section 1905 of title 18 of the United

States Code, the Administrator shall consider such information or particular portion thereof confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act. Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information entitled to protection under this subparagraph shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

"(iii) The Administrator may prescribe regulations, under the authority of this Act, to prevent radiation exposure which presents an unreasonable risk to human health from the use in construction or land reclamation (with or without revegetation) of (I) solid waste from the extraction, beneficiation, and processing of phosphate rock or (II) overburden from the mining of uranium ore.

"(iv) Whenever on the basis of any information the Administrator determines that any person is in violation of any requirement of this subparagraph, the Administrator shall give notice to the violator of his failure to comply with such requirement. If such violation extends beyond the thirtieth day after the Administrator's notification, the Administrator may issue an order requiring compliance within a specified time period or the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

"(C) Not later than six months after the date of submission of the applicable study required to be conducted under subsection (f), (n), (o), or (p), of section 8002 of this Act, the Administrator shall, after public hearings and opportunity for comment, either determine to promulgate regulations under this subtitle for each waste listed in subparagraph (A) of this paragraph or determine that such regulations are unwarranted. The Administrator shall publish his determination, which shall be based on information developed or accumulated pursuant to such study, public hearings, and comment, in the Federal Register accompanied by an explanation and justification of the reasons for it.

[3001(b)(3) added by PL 96-482]

"(c) Petition by State Governor.—At any time after the date eighteen months after the enactment of this title, the Governor of any State may petition the Administrator to identify or list a material as a hazardous waste. The Administrator shall act upon such petition

within ninety days following his receipt thereof and shall notify the Governor of such action. If the Administrator denies such petition because of financial considerations, in providing such notice to the Governor he shall include a statement concerning such considerations.

[3001(d) added by PL 98-616]

"(d) **SMALL QUANTITY GENERATOR WASTE.**—(1) By March 31, 1986, the Administrator shall promulgate standards under sections 3002, 3003, and 3004 for hazardous waste generated by a generator in a total quantity of hazardous waste greater than one hundred kilograms but less than one thousand kilograms during a calendar month.

"(2) The standards referred to in paragraph (1), including standards applicable to the legitimate use, reuse, recycling, and reclamation of such wastes, may vary from the standards applicable to hazardous waste generated by larger quantity generators, but such standards shall be sufficient to protect human health and the environment.

"(3) Not later than two hundred and seventy days after the enactment of the Hazardous and Solid Waste Amendments of 1984 any hazardous waste which is part of a total quantity generated by a generator generating greater than one hundred kilograms but less than one thousand kilograms during one calendar month and which is shipped off the premises on which such waste is generated shall be accompanied by a copy of the Environmental Protection Agency Uniform Hazardous Waste Manifest form signed by the generator. This form shall contain the following information:

- "(A) the name and address of the generator of the waste;
- "(B) the United States Department of Transportation description of the waste, including the proper shipping name, hazard class, and identification number (UN/NA), if applicable;
- "(C) the number and type of containers;
- "(D) the quantity of waste being transported; and
- "(E) the name and address of the facility designated to receive the waste.

If subparagraph (B) is not applicable, in lieu of the description referred to in such subparagraph (B), the form shall contain the Environmental Protection Agency identification number, or a generic description of the waste, or a description of the waste by hazardous waste characteristic. Additional requirements related to the manifest form shall apply only if determined necessary by the Administrator to protect human health and the environment.

"(4) The Administrator's responsibility under this subtitle to protect human health and the environment may require the promulgation of standards under this subtitle for hazardous wastes which are generated by any generator who does not generate more than one hundred kilograms of hazardous waste in a calendar month.

"(5) Until the effective date of standards required to be promulgated under paragraph (1), any hazardous waste identified or listed under section 3001 generated by any generator during any calendar month in a total quantity greater than one hundred kilograms but less than one thousand kilograms, which is not treated, stored, or disposed of at a hazardous waste treatment, storage, or disposal facility with a permit under section 3005, shall be disposed of only in a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

"(6) Standards promulgated as provided in paragraph (1) shall, at a minimum, require that all treatment, storage, or disposal of hazardous wastes generated by generators referred to in paragraph (1) shall occur at a facility with interim status or a permit under this subtitle, except that onsite storage of hazardous waste generated by a generator generating a total quantity of hazardous waste greater than one hundred kilograms, but less than one thousand kilograms during a calendar month, may occur without the requirement of a permit for up to one hundred and eighty days. Such onsite storage

may occur without the requirement of a permit for not more than six thousand kilograms for up to two hundred and seventy days if such generator must ship or haul such waste over two hundred miles.

"(7)(A) Nothing in this subsection shall be construed to affect or impair the validity of regulations promulgated by the Secretary of Transportation pursuant to the Hazardous Materials Transportation Act.

"(B) Nothing in this subsection shall be construed to affect, modify, or render invalid any requirements in regulations promulgated prior to January 1, 1983 applicable to any acutely hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms.

"(8) Effective March 31, 1986, unless the Administrator promulgates standards as provided in paragraph (1) of this subsection prior to such date, hazardous waste generated by any generator in a total quantity greater than one hundred kilograms but less than one thousand kilograms during a calendar month shall be subject to the following requirements until the standards referred to in paragraph (1) of this subsection have become effective:

"(A) the notice requirements of paragraph (3) of this subsection shall apply and in addition, the information provided in the form shall include the name of the waste transporters and the name and address of the facility designated to receive the waste;

"(B) except in the case of the onsite storage referred to in paragraph (6) of this subsection, the treatment, storage, or disposal of such waste shall occur at a facility with interim status or a permit under this subtitle;

"(C) generators of such waste shall file manifest exception reports as required of generators producing greater amounts of hazardous waste per month except that such reports shall be filed by January 31, for any waste shipment occurring in the last half of the preceding calendar year, and by July 31, for any waste shipment occurring in the first half of the calendar year; and

"(D) generators of such waste shall retain for three years a copy of the manifest signed by the designated facility that has received the waste.

Nothing in this paragraph shall be construed as a determination of the standards appropriate under paragraph (1).

"(9) The last sentence of section 3010(b) shall not apply to regulations promulgated under this subsection.

[Editor's note: Sections 221(b) through (f) of PL 98-616 provides the following concerning responsibilities of the EPA Administrator:

* "(b) The Administrator of the Environmental Protection Agency shall undertake activities to inform and educate the waste generators of their responsibilities under the amendments made by this section during the period within thirty months after the enactment of the Hazardous and Solid Waste Amendments of 1984 to help assure compliance.

"(c) The Administrator of the Environmental Protection Agency in cooperation with the States shall conduct a study of hazardous waste identified or listed under section 3001 of the Solid Waste Disposal Act which is generated by individual generators in total quantities for each generator during any calendar month of less than one thousand kilograms. The Administrator may require from such generators information as may be necessary to conduct the study. Such study shall include a characterization of the number and type

* Section 2(j) of PL 98-616 provides:

"(j) There is authorized to be appropriated for purposes of section 221(b) of this Act \$500,000 for each of the fiscal years 1985 through 1987."

of such generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the individual and industry waste management practices of such generators, the potential costs of modifying those practices and the impact of such modifications on national treatment and disposal facility capacity, and the threat to human health and the environment and the employees of transporters or others involved in solid waste management posed by such hazardous wastes or such management practices. Such study shall be submitted to the Congress not later than April 1, 1985.

(d) The Administrator of the Environmental Protection Agency shall cause to be studied the existing manifest system for hazardous wastes as it applies to small quantity generators and recommend whether the current system shall be retained or whether a new system should be introduced. The study shall include an analysis of the cost versus the benefits of the system studied as well as an analysis of the ease of retrieving and collating information and identifying a given substance. Finally, any new proposal shall include a list of those standards that are necessary to protect human health and the environment. Such study shall be submitted to the Congress not later than April 1, 1987.

(e) The Administrator of the Environmental Protection Agency, in conjunction with the Secretary of Transportation, shall prepare and submit to the Congress a report on the feasibility of easing the administrative burden on small quantity generators, increasing compliance with statutory and regulatory requirements, and simplifying enforcement efforts through a program of licensing hazardous waste transporters to assume the responsibilities of small quantity generators relating to the preparation of manifests and associated recordkeeping and reporting requirements. The report shall examine the appropriate licensing requirements under such a program including the need for financial assurances by licensed transporters and shall make recommendations on provisions and requirements for such a program including the appropriate division of responsibilities between the Department of Transportation and the Environmental Protection Administration. Such report shall be submitted to the Congress not later than April 1, 1987.

(f)(1) The Administrator of the Environmental Protection Agency shall, in consultation with the Secretary of Education, the States, and appropriate educational associations, conduct a comprehensive study of problems associated with the accumulation, storage and disposal of hazardous wastes from educational institutions. The study shall include an investigation of the feasibility and availability of environmentally sound methods for the treatment, storage or disposal of hazardous waste from such institutions, taking into account the types and quantities of such waste which are generated by these institutions, and the nonprofit nature of these institutions.

(2) The Administrator shall submit a report to the Congress containing the findings of the study carried out under paragraph (1) not later than April 1, 1987.

(3) For purposes of this subsection—

(A) the term "hazardous waste" means hazardous waste which is listed or identified under Section 3001 of the Solid Waste Disposal Act;

(B) the term "educational institution" includes, but shall not be limited to,

- (i) secondary schools as defined in section 198(a)(7) of the Elementary and Secondary Education Act of 1965; and
- (ii) institutions of higher education as defined in section 1201(a) of the Higher Education Act of 1965.]

[3001(c) — (i) added by PL 98-616]

"(e) SPECIFIED WASTES.—(1) Not later than 6 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall, where appropriate, list under subsection (b)(1), additional wastes containing chlorinated dioxins or chlorinated dibenzofurans. Not later than one year after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall, where appropriate, list under subsection (b)(1) wastes containing remaining halogenated dioxins and halogenated dibenzofurans.

(2) Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall make a determination of whether or not to list under subsection (b)(1) the following wastes: Chlorinated Aliphatics, Dioxin, Dimethyl Hydrazine, TDI (toluene diisocyanate), Carbamates, Bromacil, Linuron, Organo-bromines, solvents, refining

wastes, chlorinated aromatics, dyes and pigments, inorganic chemical industry wastes, lithium batteries, coke byproducts, paint production wastes, and coal slurry pipeline effluent.

"(f) DELISTING PROCEDURES.—(1) When evaluating a petition to exclude a waste generated at a particular facility from listing under this section, the Administrator shall consider factors (including additional constituents) other than those for which the waste was listed if the Administrator has a reasonable basis to believe that such additional factors could cause the waste to be a hazardous waste. The Administrator shall provide notice and opportunity for comment on these additional factors before granting or denying such petition.

(2)(A) To the maximum extent practicable the Administrator shall publish in the Federal Register a proposal to grant or deny a petition referred to in paragraph (1) within twelve months after receiving a complete application to exclude a waste generated at a particular facility from being regulated as a hazardous waste and shall grant or deny such a petition within twenty-four months after receiving a complete application.

(B) The temporary granting of such a petition prior to the enactment of the Hazardous and Solid Waste Amendments of 1984 without the opportunity for public comment and the full consideration of such comments shall not continue for more than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. If a final decision to grant or deny such a petition has not been promulgated after notice and opportunity for public comment within the time limit prescribed by the preceding sentence, any such temporary granting of such petition shall cease to be in effect.

"(g) EP TOXICITY.—Not later than twenty-eight months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 the Administrator shall examine the deficiencies of the extraction procedure toxicity characteristic as a predictor of the leaching potential of wastes and make changes in the extraction procedure toxicity characteristic, including changes in the leaching media, as are necessary to insure that it accurately predicts the leaching potential of wastes which pose a threat to human health and the environment when mismanaged.

"(h) ADDITIONAL CHARACTERISTICS.—Not later than two years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate regulations under this section identifying additional characteristics of hazardous waste, including measures or indicators of toxicity.

"(i) CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION.—A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if—

"(1) such facility—

"(A) receives and burns only—

"(i) household waste (from single and multiple dwellings, hotels, motels, and other residential sources), and

"(ii) solid waste from commercial or industrial sources that does not contain hazardous waste identified or listed under this section, and

"(B) does not accept hazardous wastes identified or listed under this section, and

"(2) the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

"Standards Applicable to Generators of Hazardous Waste

"Sec. 3002. (a) In General — Not later than eighteen months after the date of the enactment of this section, and after notice and opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such standards, applicable to generators of

hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall establish requirements respecting—

[3002(a) designated by PL 98-616]

“(1) recordkeeping practices that accurately identify the quantities of such hazardous waste generated, the constituents thereof which are significant in quantity or in potential harm to human health or the environment, and the disposition of such wastes;

“(2) labeling practices for any containers used for the storage, transport, or disposal of such hazardous waste such as will identify accurately such waste;

“(3) use of appropriate containers for such hazardous waste;

“(4) furnishing of information on the general chemical composition of such hazardous waste to persons transporting, treating, storing, or disposing of such wastes;

“(5) use of a manifest system and any other reasonable means necessary to assure that all such hazardous waste generated is designated for treatment, storage, or disposal in, and arrives at treatment, storage, or disposal facilities (other than facilities on the premises where the waste is generated) for which a permit has been issued as provided in this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); and

“(6) submission of reports to the Administrator for the State agency in any case in which such agency carries out a permit program pursuant to this subtitle) at least once every two years, setting out—

“(A) the quantities and nature of hazardous waste identified or listed under this subtitle that he has generated during the year;

“(B) the disposition of all hazardous waste reported under subparagraph (A);

“(C) the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

“(D) the changes in volume and toxicity of waste actually achieved during the year in question in comparison with previous years, to the extent such information is available for years prior to enactment of the Hazardous and Solid Waste Amendments of 1984.

[3002(a)(6) revised by PL 98-616]

“(b) WASTE MINIMIZATION.—Effective September 1, 1985, the manifest required by subsection (a)(5) shall contain a certification by the generator that—

“(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

“(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

[3002(b) added by PL 98-616]

“Standards Applicable to Transporters of Hazardous Waste

“Sec. 3003. (a) Standards.—Not later than eighteen months after the date of enactment of this section, and after opportunity for public hearings the Administrator, after consultation with the Secretary of Transportation and the States, shall promulgate regulations establishing such standards, applicable to transporters of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall include but need not be limited to requirements respecting—

“(1) recordkeeping concerning such hazardous waste transported, and their source and delivery points;

“(2) transportation of such waste only if properly labeled;

“(3) compliance with the manifest system referred to in section 3002(5); and

“(4) transportation of all such hazardous waste only to the hazardous waste treatment, storage, or disposal facilities which the shipper designates on the manifest form to be a facility holding a permit issued under this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries act (86 Stat. 1052).

“(b) Coordination With Regulations of Secretary of Transportation.—In case of any hazardous waste identified or listed under this subtitle which is subject to the Hazardous Materials Transportation Act (88 Stat. 2156; 49 U.S.C. 1801 and following), the regulations promulgated by the Administrator under this section shall be consistent with the requirements of such Act and the regulations thereunder. The Administrator is authorized to make recommendations to the Secretary of Transportation respecting the regulations of such hazardous waste under the Hazardous Materials Transportation Act and for addition of materials to be covered by such Act.

“(c) FUEL FROM HAZARDOUS WASTE.—Not later than two years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, and after opportunity for public hearing, the Administrator shall promulgate regulations establishing standards, applicable to transporters of fuel produced (1) from any hazardous waste identified or listed under section 3001, or (2) from any hazardous waste identified or listed under section 3001 and any other material, as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (4) of subsection (a) as may be appropriate.

[3003(c) added by PL 98-616]

“Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

“Sec. 3004. (a) In General — Not later than eighteen months after the date of enactment of this section, and

after opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such performance standards, applicable to owners and operators of facilities for the treatment, storage, or disposal of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. In establishing such standards the Administrator shall, where appropriate, distinguish in such standards between requirements appropriate for new facilities and for facilities in existence on the date of promulgation of such regulations. Such standards shall include, but need not be limited to, requirements respecting—

[3004 amended by PL 96-482; (a) designated by PL 98-616]

“(1) maintaining records of all hazardous wastes identified or listed under this title which is treated, stored, or disposed of, as the case may be, and the manner in which such wastes were treated, stored, or disposed of;

“(2) satisfactory reporting, monitoring, and inspection and compliance with the manifest system referred to in section 3002(5);

“(3) treatment, storage, or disposal of all such waste received by the facility pursuant to such operating methods, techniques, and practices as may be satisfactory to the Administrator;

“(4) the location, design, and construction of such hazardous waste treatment, disposal, or storage facilities;

“(5) contingency plans for effective action to minimize unanticipated damage from any treatment, storage, or disposal of any such hazardous waste;

“(6) the maintenance of operation of such facilities and requiring such additional qualifications as to ownership, continuity of operation, training for personnel, and financial responsibility (including financial responsibility for corrective action) as may be necessary or desirable; and—

[3004(a)(6) amended by PL 98-616]

“(7) compliance with the requirements of section 3005 respecting permits for treatment, storage, or disposal.

No private entity shall be precluded by reason of criteria established under paragraph (6) from the ownership or operation of facilities providing hazardous waste treatment, storage, or disposal services where such entity can provide assurances of financial responsibility and continuity of operation consistent with the degree and duration of risks associated with the treatment, storage, or disposal of specified hazardous waste.

[3004(b) — (x) added by PL 98-616]

“(b) SALT DOME FORMATIONS, SALT BED FORMATIONS, UNDERGROUND MINES AND CAVES.—(1) Effective on the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as—

“(A) the Administrator has determined, after notice and opportunity for hearings on the record in the affected areas, that such placement is protective of human health and the environment;

“(B) the Administrator has promulgated performance and permitting standards for such facilities under this subtitle; and

“(C) a permit has been issued under section 3005(c) for the facility concerned.

“(2) Effective on the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any hazardous waste other than a hazardous waste referred to in paragraph (1) in a salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as a permit has been issued under section 3005(c) for the facility concerned.

“(3) No determination made by the Administrator under subsection (d), (e), or (g) of this section regarding any hazardous waste to which such subsection (d), (e), or (g) applies shall affect the prohibition contained in paragraph (1) or (2) of this subsection.

“(4) Nothing in this subsection shall apply to the Department of Energy Waste Isolation Pilot Project in New Mexico.

“(c) LIQUIDS IN LANDFILLS.—(1) Effective 6 months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not absorbents have been added) in any landfill is prohibited. Prior to such date the requirements (as in effect on April 30, 1983) promulgated under this section by the Administrator regarding liquid hazardous waste shall remain in force and effect to the extent such requirements are applicable to the placement of bulk or noncontainerized liquid hazardous waste, or free liquids contained in hazardous waste, in landfills.

“(2) Not later than fifteen months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate final regulations which—

“(A) minimize the disposal of containerized liquid hazardous waste in landfills; and

“(B) minimize the presence of free liquids in containerized hazardous waste to be disposed of in landfills.

Such regulations shall also prohibit the disposal in landfills of liquids that have been absorbed in materials that biodegrade or that release liquids when compressed as might occur during routine landfill operations. Prior to the date on which such final regulations take effect, the requirements (as in effect on April 30, 1983) promulgated under this section by the Administrator shall remain in force and effect to the extent such requirements are applicable to the disposal of containerized liquid hazardous waste, or free liquids contained in hazardous waste, in landfills.

“(3) Effective twelve months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any liquid which is not a hazardous waste in a landfill for which a permit is required under section 3005(c) or which is operating pursuant to interim status granted under section 3005(e) is prohibited unless the owner or operator of such landfill demonstrates to the Administrator, or the Administrator determines, that—

“(A) the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted under section 3005(c) or operating pursuant to interim status under section 3005(e), which contains, or may reasonably be anticipated to contain, hazardous waste; and

“(B) placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water.

As used in subparagraph (B), the term ‘underground source of drinking water’ has the same meaning as provided in regulations under the Safe Drinking Water Act (title XIV of the Public Health Service Act).

"(4) No determination made by the Administrator under subsection (d), (e), or (g) of this section regarding any hazardous waste to which such subsection (d), (e), or (g) applies shall affect the prohibition contained in paragraph (1) of this subsection.

"(d) PROHIBITIONS ON LAND DISPOSAL OF SPECIFIED WASTES.—(1) Effective 32 months after the enactment of the Hazardous and Solid Waste Amendments of 1984 (except as provided in subsection (f) with respect to underground injection into deep injection wells), the land disposal of the hazardous wastes referred to in paragraph (2) is prohibited unless the Administrator determines the prohibition on one or more methods of land disposal of such waste is not required in order to protect human health and the environment for as long as the waste remains hazardous, taking into account—

"(A) the long-term uncertainties associated with land disposal,

"(B) the goal of managing hazardous waste in an appropriate manner in the first instance, and

"(C) the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous wastes and their hazardous constituents.

For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for a hazardous waste referred to in paragraph (2) (other than a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)), unless, upon application by an interested person, it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

"(2) Paragraph (1) applies to the following hazardous wastes listed or identified under section 3001:

"(A) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

"(B) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

"(i) arsenic and/or compounds (as As) 500 mg/l;

"(ii) cadmium and/or compounds (as Cd) 100 mg/l;

"(iii) chromium (VI) and/or compounds (as Cr VI) 500 mg/l;

"(iv) lead and/or compounds (as Pb) 500 mg/l;

"(v) mercury and/or compounds (as Hg) 20 mg/l;

"(vi) nickel and/or compounds (as Ni) 134 mg/l;

"(vii) selenium and/or compounds (as Se) 100 mg/l; and

"(viii) thallium and/or compounds (as Th) 130 mg/l.

"(C) Liquid hazardous waste having a pH less than or equal to two (2.0).

"(D) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 50 ppm.

"(E) Hazardous wastes containing halogenated organic compounds in total concentration greater than or equal to 1,000 mg/kg.

When necessary to protect human health and the environment, the Administrator shall substitute more stringent concentration levels than the levels specified in subparagraphs (A) through (E).

"(3) During the period ending forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, this subsection shall not apply to any disposal of contaminated soil or debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or a corrective action required under this subtitle.

"(e) SOLVENTS AND DIOXINS.—(1) Effective twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 (except as provided in subsection (f) with respect to underground injection into deep injection wells), the land disposal of the hazardous wastes referred to in paragraph (2) is prohibited unless the Administrator determines the prohibition of

one or more methods of land disposal of such waste is not required in order to protect human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraph (A) through (C) of subsection (d)(1). For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for a hazardous waste referred to in paragraph (2) (other than a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)), unless upon application by an interested person it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

"(2) The hazardous wastes to which the prohibition under paragraph (1) applies are as follows—

"(A) dioxin-containing hazardous wastes numbered F020, F021, F022, and F023 (as referred to in the proposed rule published by the Administrator in the Federal Register for April 4, 1983), and

"(B) those hazardous wastes numbered F001, F002, F003, F004, and F005 in regulations promulgated by the Administrator under section 3001 (40 C.F.R. 261.31 (July 1, 1983)), as those regulations are in effect on July 1, 1983.

"(3) During the period ending forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, this subsection shall not apply to any disposal of contaminated soil or debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or a corrective action required under this subtitle.

"(f) DISPOSAL INTO DEEP INJECTION WELLS; SPECIFIED SUBSECTION (d) WASTES; SOLVENTS AND DIOXINS.—(1) Not later than forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a review of the disposal of all hazardous wastes referred to in paragraph (2) of subsection (d) and in paragraph (2) of subsection (e) by underground injection into deep injection wells.

"(2) Within forty-five months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall make a determination regarding the disposal by underground injection into deep injection wells of the hazardous wastes referred to in paragraph (2) of subsection (d) and the hazardous wastes referred to in paragraph (2) of subsection (e). The Administrator shall promulgate final regulations prohibiting the disposal of such wastes into such wells if it may reasonably be determined that such disposal may not be protective of human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraphs (A) through (C) of subsection (d)(1). In promulgating such regulations, the Administrator shall consider each hazardous waste referred to in paragraph (2) of subsection (d) or in paragraph (2) of subsection (e) which is prohibited from disposal into such wells by any State.

"(3) If the Administrator fails to make a determination under paragraph (2) for any hazardous waste referred to in paragraph (2) of subsection (d) or in paragraph (2) of subsection (e) within forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, such hazardous waste shall be prohibited from disposal into any deep injection well.

"(4) As used in this subsection, the term 'deep injection well' means a well used for the underground injection of hazardous waste other than a well to which section 7010(a) applies.

"(g) ADDITIONAL LAND DISPOSAL PROHIBITION DETERMINATIONS.—(1) Not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit a schedule to Congress for—

"(A) reviewing all hazardous wastes listed (as of the date of the enactment of the Hazardous and Solid Waste Amendments of 1984) under section 3001 other than those wastes which are referred to in subsection (d) or (e); and

"(B) taking action under paragraph (5) of this subsection with respect to each such hazardous waste.

"(2) The Administrator shall base the schedule on a ranking of such listed wastes considering their intrinsic hazard and their volume such that decisions regarding the land disposal of high volume hazardous wastes with high intrinsic hazard shall, to the maximum extent possible, be made by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. Decisions regarding low volume hazardous wastes with lower intrinsic hazard shall be made by the date sixty-six months after such date of enactment.

"(3) The preparation and submission of the schedule under this subsection shall not be subject to the Paperwork Reduction Act of 1980. No hearing on the record shall be required for purposes of preparation or submission of the schedule. The schedule shall not be subject to judicial review.

"(4) The schedule under this subsection shall require that the Administrator shall promulgate regulations in accordance with paragraph (5) or make a determination under paragraph (5)—

"(A) for at least one-third of all hazardous wastes referred to in paragraph (1) by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984;

"(B) for at least two-thirds of all such listed wastes by the date fifty-five months after the date of enactment of such Amendments; and

"(C) for all such listed wastes and for all hazardous wastes identified under 3001 by the date sixty-six months after the date of enactment of such Amendments.

In the case of any hazardous waste identified or listed under section 3001 after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall determine whether such waste shall be prohibited from one or more methods of land disposal in accordance with paragraph (5) within six months after the date of such identification or listing.

"(5) Not later than the date specified in the schedule published under this subsection, the Administrator shall promulgate final regulations prohibiting one or more methods of land disposal of the hazardous wastes listed on such schedule except for methods of land disposal which the Administrator determines will be protective of human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraph (A) through (C) of subsection (d)(1). For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment (except with respect to a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)) unless, upon application by an interested person, it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

"(6)(A) If the Administrator fails (by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984) to promulgate regulations or make a determination under paragraph (5) for any hazardous waste which is included in the first one-third of the schedule published under this subsection, such hazardous waste may be disposed of in a landfill or surface impoundment only if—

"(i) such facility is in compliance with the requirements of subsection (o) which are applicable to new facilities (relating to minimum technological requirements); and

"(ii) prior to such disposal, the generator has certified to the Administrator that such generator has investigated the availability of treatment capacity and has determined that the use of such landfill or surface impoundment is the only practical alternative to treatment currently available to the generator.

The prohibition contained in this subparagraph shall continue to apply until the Administrator promulgates regulations or makes a determination under paragraph (5) for the waste concerned.

"(B) If the Administrator fails (by the date 65 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984) to promulgate regulations or make a determination under paragraph (5) for any hazardous waste which is included in the first two-thirds of the schedule published under this subsection, such hazardous waste may be disposed of in a landfill or surface impoundment only if—

"(i) such facility is in compliance with the requirements of subsection (o) which are applicable to new facilities (relating to minimum technological requirements); and

"(ii) prior to such disposal, the generator has certified to the Administrator that such generator has investigated the availability of treatment capacity and has determined that the use of such landfill or surface impoundment is the only practical alternative to treatment currently available to the generator. The prohibition contained in this subparagraph shall continue to apply until the Administrator promulgates regulations or makes a determination under paragraph (5) for the waste concerned.

"(C) If the Administrator fails to promulgate regulations, or make a determination under paragraph (5) for any hazardous waste referred to in paragraph (1) within 66 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, such hazardous waste shall be prohibited from land disposal.

"(b) VARIANCES FROM LAND DISPOSAL PROHIBITIONS.—(1) A prohibition in regulations under subsection (d), (e), (f), or (g) shall be effective immediately upon promulgation.

"(2) The Administrator may establish an effective date different from the effective date which would otherwise apply under subsection (d), (e), (f), or (g) with respect to a specific hazardous waste which is subject to a prohibition under subsection (d), (e), (f), or (g) or under regulations under subsection (d), (e), (f), or (g). Any such other effective date shall be established on the basis of the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available. Any such other effective date shall in no event be later than 2 years after the effective date of the prohibition which would otherwise apply under subsection (d), (e), (f), or (g).

"(3) The Administrator, after notice and opportunity for comment and after consultation with appropriate State agencies in all affected States, may on a case-by-case basis grant an extension of the effective date which would otherwise apply under subsection (d), (e), (f), or (g) or under paragraph (2) for up to one year, where the applicant demonstrates that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of such applicant such alternative capacity cannot reasonably be made available by such effective date. Such extension shall be renewable once for no more than one additional year.

"(4) Whenever another effective date (hereinafter referred to as a 'variance') is established under paragraph (2), or an extension is granted under paragraph (3), with respect to any hazardous waste, during the period for which such variance or extension is in effect, such hazardous waste may be disposed of in a landfill or surface impoundment only if such facility is in compliance with the requirements of subsection (o).

"(i) PUBLICATION OF DETERMINATION.—If the Administrator determines that a method of land disposal will be protective of human health and the environment, he shall promptly publish in the Federal Register notice of such determination, together with an explanation of the basis for such determination.

"(j) STORAGE OF HAZARDOUS WASTE PROHIBITED FROM LAND DISPOSAL.—In the case of any hazardous waste which is prohibited from one or more methods of land disposal under this section (or under regulations promulgated by the Administrator under any provision of this section) the storage of such hazardous waste is prohibited unless such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal.

"(k) DEFINITION OF LAND DISPOSAL.—For the purposes of this section, the term 'land disposal', when used with respect to a specified hazardous waste, shall be deemed to include, but not be limited to, any placement of such hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave.

"(l) BAN ON DUST SUPPRESSION.—The use of waste or used oil or other material, which is contaminated or mixed with dioxin or any other hazardous waste identified or listed under section 3001 (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

"(m) TREATMENT STANDARDS FOR WASTES SUBJECT TO LAND DISPOSAL PROHIBITION.—(1) Simultaneously with the promulgation of

regulations under subsection (d), (e), (f), or (g) prohibiting one or more methods of land disposal of a particular hazardous waste, and as appropriate thereafter, the Administrator shall, after notice and an opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations specifying those levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized.

"(2) If such hazardous waste has been treated to the level or by a method specified in regulations promulgated under this subsection, such waste or residue thereof shall not be subject to any prohibition promulgated under subsection (d), (e), (f), or (g) and may be disposed of in a land disposal facility which meets the requirements of this subtitle. Any regulation promulgated under this subsection for a particular hazardous waste shall become effective on the same date as any applicable prohibition promulgated under subsection (d), (e), (f), or (g).

"(n) AIR EMISSIONS.—Not later than thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate such regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment.

"(o) MINIMUM TECHNOLOGICAL REQUIREMENTS.—(1) The regulations under subsection (a) of this section shall be revised from time to time to take into account improvements in the technology of control and measurement. At a minimum, such regulations shall require, and a permit issued pursuant to section 3005(c) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 by the Administrator or a State shall require—

"(A) for each new landfill or surface impoundment, each new landfill or surface impoundment unit at an existing facility, each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which an application for a final determination regarding issuance of a permit under section 3005(c) is received after the date of enactment of the Hazardous and Solid Waste Amendments of 1984—

"(i) the installation of two or more liners and a leachate collection system above (in the case of a landfill) and between such liners; and

"(ii) ground water monitoring; and

"(B) for each incinerator which receives a permit under section 3005(c) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the attainment of the minimum destruction and removal efficiency required by regulations in effect on June 24, 1982.

The requirements of this paragraph shall apply with respect to all waste received after the issuance of the permit.

"(2) Paragraph (1)(A)(i) shall not apply if the owner or operator demonstrates to the Administrator, and the Administrator finds for such landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as such liners and leachate collection systems.

"(3) The double-liner requirement set forth in paragraph (1)(A)(i) may be waived by the Administrator for any monofill, if—

"(A) such monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand,

"(B) such wastes do not contain constituents which would render the wastes hazardous for reasons other than the Extraction Procedure ("EP") toxicity characteristics set forth in regulations under this subtitle, and

"(C) such monofill meets the same requirements as are applicable in the case of a waiver under section 3005(j)(2) or (4).

"(4)(A) Not later than thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate standards requiring that new landfill units, surface impoundment units, waste piles, underground tanks and land treatment units for the storage, treatment, or disposal of hazardous waste identified or listed under section 3001 shall be required to utilize approved leak detection systems.

"(B) For the purposes of subparagraph (A)—

"(i) the term 'approved leak detection system' means a system or technology which the Administrator determines to be capable of detecting leaks of hazardous constituents at the earliest practicable time; and

"(ii) the term 'new units' means units on which construction commences after the date of promulgation of regulations under this paragraph.

"(5)(A) The Administrator shall promulgate regulations or issue guidance documents implementing the requirements of paragraph (1)(A) within two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984.

"(B) Until the effective date of such regulations or guidance documents, the requirement for the installation of two or more liners may be satisfied by the installation of a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

"(6) Any permit under section 3005 which is issued for a landfill located within the State of Alabama shall require the installation of two or more liners and a leachate collection system above and between such liners, notwithstanding any other provision of this Act.

"(7) In addition to the requirements set forth in this subsection, the regulations referred to in paragraph (1) shall specify criteria for the acceptable location of new and existing treatment, storage, or disposal facilities as necessary to protect human health and the environment. Within 18 months after the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall publish guidance criteria identifying areas of vulnerable hydrogeology.

GROUND WATER MONITORING

"(p) GROUND WATER MONITORING.—The standards under this section concerning ground water monitoring which are applicable to surface impoundments, waste piles, land treatment units, and landfills shall apply to such a facility whether or not—

"(1) the facility is located above the seasonal high water table;

"(2) two liners and a leachate collection system have been installed at the facility; or

"(3) the owner or operator inspects the liner (or liners) which has been installed at the facility.

This subsection shall not be construed to affect other exemptions or waivers from such standards provided in regulations in effect on the date of enactment of the Hazardous and Solid Waste Amendments of 1984 or as may be provided in revisions to those regulations, to the extent consistent with this subsection. The Administrator is authorized on a case-by-case basis to exempt from ground water monitoring requirements under this section (including subsection (a)) any engineered structure which the Administrator finds does not receive or contain liquid waste (nor waste containing free liquids), is designed and operated to exclude liquid from precipitation or other runoff, utilizes multiple leak detection systems within the outer layer of containment, and provides for continuing operation and maintenance of these leak detection systems during the operating period, closure, and the period required for post-closure monitoring and for which the Administrator concludes on the basis of such

findings that there is a reasonable certainty hazardous constituents will not migrate beyond the outer layer of containment prior to the end of the period required for post-closure monitoring.

"(q) **HAZARDOUS WASTE USED AS FUEL.**—(1) Not later than two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing such—

"(A) standards applicable to the owners and operators of facilities which produce a fuel—

"(i) from any hazardous waste identified or listed under section 3001, or

"(ii) from any hazardous waste identified or listed under section 3001 and any other material;

"(B) standards applicable to the owners and operators of facilities which burn, for purposes of energy recovery, any fuel produced as provided in subparagraph (A) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001; and

"(C) standards applicable to any person who distributes or markets any fuel which is produced as provided in subparagraph (A) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001

as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (7) of subsection (a) as may be appropriate. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). For purposes of this subsection, the term 'hazardous waste listed under section 3001' includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel.

"(2)(A) This subsection, subsection (r), and subsection (s) shall not apply to petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristics by which a substance would be identified as a hazardous waste under section 3001.

"(B) The Administrator may exempt from the requirements of this subsection, subsection (r), or subsection (s) facilities which burn de minimis quantities of hazardous waste as fuel, as defined by the Administrator, if the wastes are burned at the same facility at which such wastes are generated; the waste is burned to recover useful energy, as determined by the Administrator on the basis of the design and operating characteristics of the facility and the heating value and other characteristics of the waste; and the waste is burned in a type of device determined by the Administrator to be designed and operated at a destruction and removal efficiency sufficient such that protection of human health and environment is assured.

"(C)(i) After the date of the enactment of the Hazardous and Solid Waste Amendments of 1984 and until standards are promulgated and in effect under paragraph (2) of this subsection, no fuel which contains any hazardous waste may be burned in any cement kiln which is located within the boundaries of any incorporated municipality with a population greater than five hundred thousand (based on the most recent census statistics) unless such kiln fully complies with regulations (as in effect on the date of the enactment of the Hazardous and Solid Waste Amendments of 1984) under this subtitle which are applicable to incinerators.

"(ii) Any person who knowingly violates the prohibition contained in clause (i) shall be deemed to have violated section 3008(d)(2).

"(r) **LABELING.**—(1) Notwithstanding any other provision of law, until such time as the Administrator promulgates standards under subsection (q) specifically superseding this requirement, it shall be unlawful for any person who is required to file a notification in accordance with paragraph (1) or (2) of section 3010 to distribute or market any fuel which is produced from any hazardous waste identified or listed under section 3001, or any fuel which otherwise contains any hazardous waste identified or listed under section 3001 if the invoice or the bill of sale fails—

"(A) to bear the following statement: 'WARNING: THIS FUEL CONTAINS HAZARDOUS WASTES', and

"(B) to list the hazardous wastes contained therein.

Beginning ninety days after the enactment of the Hazardous and

Solid Waste Amendments of 1984, such statement shall be located in a conspicuous place on every such invoice or bill of sale and shall appear in conspicuous and legible type in contrast by typography, layout, or color with other printed matter on the invoice or bill of sale.

"(2) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from petroleum refining waste containing oil if—

"(A) such materials are generated and reinserted onsite into the refining process;

"(B) contaminants are removed; and

"(C) such refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

"(3) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from oily materials, resulting from normal petroleum refining, production and transportation practices, if (A) contaminants are removed; and (B) such oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

"(s) **RECORDKEEPING.**—Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate regulations requiring that any person who is required to file a notification in accordance with subparagraph (1), (2), or (3), of section 3010(a) shall maintain such records regarding fuel blending, distribution, or use as may be necessary to protect human health and the environment.

"(t) **FINANCIAL RESPONSIBILITY PROVISIONS.**—(1) Financial responsibility required by subsection (a) of this section may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, or qualification as a self-insurer. In promulgating requirements under this section, the Administrator is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this Act.

"(2) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where (with reasonable diligence) jurisdiction in any State court or any Federal Court cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility must be provided under this section may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this subsection, such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

"(3) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this Act. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

"(4) For the purpose of this subsection, the term 'guarantor' means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this section.

"(u) CONTINUING RELEASES AT PERMITTED FACILITIES.—Standards promulgated under this section shall require, and a permit issued after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 by the Administrator or a State shall require, corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit under this subtitle, regardless of the time at which waste was placed in such unit. Permits issued under section 3005 shall contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

"(v) CORRECTIVE ACTIONS BEYOND FACILITY BOUNDARY.—As promptly as practicable after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall amend the standards under this section regarding corrective action required at facilities for the treatment, storage, or disposal, of hazardous waste listed or identified under section 3001 to require that corrective action be taken beyond the facility boundary where necessary to protect human health and the environment unless the owner or operator of the facility concerned demonstrates to the satisfaction of the Administrator that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. Such regulations shall take effect immediately upon promulgation, notwithstanding section 3010(b), and shall apply to—

"(1) all facilities operating under permits issued under subsection (c), and

"(2) all landfills, surface impoundments, and waste pile units (including any new units, replacements of existing units, or lateral expansions of existing units) which receive hazardous waste after July 26, 1982.

Pending promulgation of such regulations, the Administrator shall issue corrective action orders for facilities referred to in paragraphs (1) and (2), on a case-by-case basis, consistent with the purposes of this subsection.

"(w) UNDERGROUND TANKS.—Not later than March 1, 1985, the Administrator shall promulgate final permitting standards under this section for underground tanks that cannot be entered for inspection. Within forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, such standards shall be modified, if necessary, to cover at a minimum all requirements and standards described in section 9003.

"(x) If (1) solid waste from the extraction, beneficiation or processing of ores and minerals, including phosphate rock and overburden from the mining of uranium, (2) fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, or (3) cement kiln dust waste, is subject to regulation under this subtitle, the Administrator is authorized to modify the requirements of subsections (c), (d), (e), (f), (g), (h), and (i) and section 3005(j), in the case of landfills or surface impoundments receiving such solid waste, to take into account the special characteristics of such wastes, the practical difficulties associated with implementation of such requirements, and site-specific characteristics, including but not limited to the climate, geology, hydrology and soil chemistry at the site, so long as such modified requirements assure protection of human health and the environment.

"Permits for Treatment, Storage, or Disposal of Hazardous Waste

"Sec. 3005. (a) Permit Requirements.—Not later than eighteen months after the date of the enactment of this section, the Administrator shall promulgate regulations requiring each person owning or operating an existing facility or planning to construct a new facility for the treatment, storage, or disposal of hazardous waste identified or listed under this subtitle to have a permit issued pursuant to this section. Such regulations shall take effect on the date provided in section 3010 and

upon and after such date the treatment, storage, or disposal of any such hazardous waste and the construction of any new facility for the treatment, storage, or disposal of any such hazardous waste is prohibited except in accordance with such a permit. No permit shall be required under this section in order to construct a facility if such facility is constructed pursuant to an approval issued by the Administrator under section 6(e) of the Toxic Substances Control Act for the incineration of polychlorinated biphenyls and any person owning or operating such a facility may, at any time after operation or construction of such facility has begun, file an application for a permit pursuant to this section authorizing such facility to incinerate hazardous waste identified or listed under this subtitle.

[3005(a) amended by PL 98-616]

"(b) Requirements of Permit Application.—Each application for a permit under this section shall contain such information as may be required under regulations promulgated by the Administrator, including information respecting—

"(1) estimates with respect to the composition, quantities, and concentrations of any hazardous waste identified or listed under this subtitle, or combinations of any such hazardous waste and any other solid waste, proposed to be disposed of, treated, transported, or stored, and the time, frequency, or rate of which such waste is proposed to be disposed of, treated, transported, or stored; and

"(2) the site at which such hazardous waste or the products of treatment of such hazardous waste will be disposed of, treated, transported to, or stored.

"(c) Permit Issuance.—(1) Upon a determination by the Administrator (or a State, if applicable), of compliance by a facility for which a permit is applied for under this section with the requirements of this section and section 3004, the Administrator (or the State) shall issue a permit for such facilities. In the event permit applicants propose modification of their facilities, or in the event the Administrator (or the State) determines that modifications are necessary to conform to the requirements under this section and section 3004, the permit shall specify the time allowed to complete the modifications.

[3005(c)(1) designated by PL 98-616]

"(XKAD) Not later than the date four years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application under this subsection for a permit for a land disposal facility which was submitted before such date, the Administrator shall issue a final permit pursuant to such application or issue a final denial of such application.

"(ii) Not later than the date five years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application for a permit under this subsection for an incinerator facility which was submitted before such date, the Administrator

shall issue a final permit pursuant to such application or issue a final denial of such application.

"(B) Not later than the date eight years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application for a permit under this subsection for any facility (other than a facility referred to in subparagraph (A)) which was submitted before such date, the Administrator shall issue a final permit pursuant to such application or issue a final denial of such application.

"(C) The time periods specified in this paragraph shall also apply in the case of any State which is administering an authorized hazardous waste program under section 3006. Interim status under subsection (e) shall terminate for each facility referred to in subparagraph (A)(ii) or (B) on the expiration of the five- or eight-year period referred to in subparagraph (A) or (B), whichever is applicable, unless the owner or operator of the facility applies for a final determination regarding the issuance of a permit under this subsection within—

"(i) two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984 (in the case of a facility referred to in subparagraph (A)(ii)), or

"(ii) four years after such date of enactment (in the case of a facility referred to in subparagraph (B)).

[3005(c)(2) added by PL 98-616].

"(3) Any permit under this section shall be for a fixed term, not to exceed 10 years in the case of any land disposal facility, storage facility, or incinerator or other treatment facility. Each permit for a land disposal facility shall be reviewed five years after date of issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with the currently applicable requirements of this section and section 3004. Nothing in this subsection shall preclude the Administrator from reviewing and modifying a permit at any time during its term. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology as well as changes in applicable regulations. Each permit issued under this section shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment."

[3005(c)(3) added by PL 98-616]

"(d) Permit Revocation.—Upon a determination by the Administrator (or by a State, in the case of a State having an authorized hazardous waste program under section 3006) of noncompliance by a facility having a permit under this title with the requirements of this section or section 3004, the Administrator (or State, in the case of a State having an authorized hazardous waste program under section 3006) shall revoke such permit.

"(e) Interim Status.—(1) Any person who—

[3005(e)(1) designated by PL 98-616]

"(A) owns or operates a facility required to have a permit under this section which facility—

"(i) was in existence on November 19, 1980, or

"(ii) is in existence on the effective date of statutory or regulatory changes under this Act that render the facility subject to the requirement to have a permit under this section.

[Former 3005(e)(1) amended and redesignated as (A) by PL 98-616]

"(B) has complied with the requirements of section 3010(a), and

[Former 3005(e)(2) redesignated as (B) by PL 98-616]

"(C) has made an application for a permit under this section shall be treated as having been issued such permit until such time as final administrative disposition of such application is made, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application.

[Former 3005(e)(3) amended and redesignated as (C) by PL 98-616]

"This paragraph shall not apply to any facility which has been previously denied a permit under this section or if authority to operate the facility under this section has been previously terminated.

"(2) In the case of each land disposal facility which has been granted interim status under this subsection before the date of enactment of the Hazardous and Solid Waste Amendments of 1984, interim status shall terminate on the date twelve months after the date of the enactment of such Amendments unless the owner or operator of such facility—

"(A) applies for a final determination regarding the issuance of a permit under subsection (e) for such facility before the date twelve months after the date of the enactment of such Amendments; and

"(B) certifies that such facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

[New 3005(e)(2) added by PL 98-616]

"(3) In the case of each land disposal facility which is in existence on the effective date of statutory or regulatory changes under this Act that render the facility subject to the requirement to have a permit under this section and which is granted interim status under this subsection, interim status shall terminate on the date twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility—

"(A) applies for a final determination regarding the issuance of a permit under subsection (e) for such facility before the date twelve months after the date on which the facility first becomes subject to such permit requirement; and

"(B) certifies that such facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

[New 3005(e)(3) added by PL 98-616]

"(f) Coal Mining Wastes and Reclamation Permits.—Notwithstanding subsection (a) through (e) of this section, any surface coal mining and reclamation permit covering any coal mining wastes or overburden which has been issued or approved under the Surface Mining Control and Reclamation Act of 1977 shall be deemed to be a permit issued pursuant to this section with respect to the treatment, storage, or disposal of such wastes or overburden. Regulations promulgated by the Administrator under this subtitle shall not be applicable to treatment, storage, or disposal of coal mining wastes and overburden which are covered by such a permit.

[3005(f) added by PL 96-482]

[3005(g)—(j) added by PL 98-616]

EXISTING SURFACE IMPOUNDMENTS

"(g) RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.—(1) The Administrator may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under this subtitle. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits—

"(A) shall provide for the construction of such facilities, as necessary, and for operation of the facility for not longer than one year (unless renewed as provided in paragraph (4)), and

"(B) shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Administrator deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment; and

"(C) shall include such requirements as the Administrator deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, insurance or bonding, financial responsibility, closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

The Administrator may apply the criteria set forth in this paragraph in establishing the conditions of each permit without separate establishment of regulations implementing such criteria.

"(2) For the purpose of expediting review and issuance of permits under this subsection, the Administrator may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements established in the Administrator's general permit regulations except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures established under section 7004(b)(2) regarding public participation.

"(3) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

"(4) Any permit issued under this subsection may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

"(h) WASTE MINIMIZATION.—Effective September 1, 1985, it shall be a condition of any permit issued under this section for the treatment, storage, or disposal of hazardous waste on the premises where such waste was generated that the permittee certify, no less often than annually, that—

"(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

"(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

"(i) INTERIM STATUS FACILITIES RECEIVING WASTES AFTER JULY 26, 1982.—The standards concerning ground water monitoring, unsaturated zone monitoring, and corrective action, which are applicable under section 3004 to new landfills, surface impoundments, land treatment units, and waste-pile units required to be permitted under subsection (e) shall also apply to any landfill, surface impoundment, land treatment unit, or waste-pile unit qualifying for the authorization to operate under subsection (e) which receives hazardous waste after July 26, 1982.

"(j) INTERIM STATUS SURFACE IMPOUNDMENTS.—(1) Except as provided in paragraph (2), (3), or (4), each surface impoundment in existence on the date of enactment of the Hazardous and Solid Waste Amendments of 1984 and qualifying for the authorization to operate under subsection (e) of this section shall not receive, store, or treat hazardous waste after the date four years after such date of enactment unless such surface impoundment is in compliance with the requirements of section 3004(o)(1)(A) which would apply to such impoundment if it were new.

"(2) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) has at least one liner, for which there is no evidence that such liner is leaking; (B) is located more than one-quarter mile from an underground source of drinking water; and (C) is in compliance with generally applicable ground water monitoring requirements for facilities with permits under subsection (e) of this section.

"(3) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) contains treated waste water during the secondary or subsequent phases of an aggressive biological treatment facility subject to a permit issued under section 402 of the Clean Water Act (or which holds such treated waste water after treatment and prior to discharge); (B) is in compliance with generally applicable ground water monitoring requirements for facilities with permits under subsection (e) of this section; and (C)(i) is part of a facility in compliance with section 301(b)(2) of the Clean Water Act, or (ii) in the case of a facility for which no effluent guidelines required under section 304(b)(2) of the Clean Water Act are in effect and no permit under section 402(a)(1) of such Act implementing section 301(b)(2) of such Act has been issued, is part of a facility in compliance with a permit under section 402 of such Act, which is achieving significant degradation of toxic pollutants and hazardous constituents contained in the untreated waste stream and which has identified those toxic pollutants and hazardous constituents in the untreated waste stream to the appropriate permitting authority.

"(4) The Administrator (or the State, in the case of a State with an authorized program), after notice and opportunity for comment, may modify the requirements of paragraph (1) for any surface impoundment if the owner or operator demonstrates that such surface impoundment is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time. The Administrator or the State shall take into account locational criteria established under section 3004(o)(7).

"(5) The owner or operator of any surface impoundment potentially subject to paragraph (1) who has reason to believe that on the basis of paragraph (2), (3), or (4) such surface impoundment is not required to comply with the requirements of paragraph (1), shall apply to the Administrator (or the State, in the case of a State with an authorized program) not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 for a determination of the applicability of paragraph (1) (in the case of paragraph (2) or (3)) or for a modification of the requirements of paragraph (1) (in the case of paragraph (4)), with respect to such surface impoundment. Such owner or operator shall provide, with such application, evidence pertinent to such decision, including:

"(A) an application for a final determination regarding the issuance of a permit under subsection (e) of this section for such facility, if not previously submitted;

"(B) evidence as to compliance with all applicable ground water monitoring requirements and the information and analysis from such monitoring;

"(C) all reasonably ascertainable evidence as to whether such surface impoundment is leaking; and

"(D) in the case of applications under paragraph (2) or (3), a certification by a registered professional engineer with academic training and experience in ground water hydrology that—

"(i) under paragraph (2), the liner of such surface impoundment is designed, constructed, and operated in accordance with applicable requirements, such surface impoundment is more than one-quarter mile from an underground source of drinking water and there is no evidence such liner is leaking; or

"(ii) under paragraph (3), based on analysis of those toxic pollutants and hazardous constituents that are likely to be present in the untreated waste stream, such impoundment satisfies the conditions of paragraph (3).

In the case of any surface impoundment for which the owner or operator fails to apply under this paragraph within the time provided by this paragraph or paragraph (6), such surface impoundment shall comply with paragraph (1) notwithstanding paragraph (2), (3), or (4). Within twelve months after receipt of such application and evidence and not later than thirty-six months after such date of enactment, and after notice and opportunity to comment, the Administrator (or, if appropriate, the State) shall advise such owner or operator on the applicability of paragraph (1) to such surface impoundment or as to whether and how the requirements of paragraph (1) shall be modified and applied to such surface impoundment.

"(6)(A) In any case in which a surface impoundment becomes subject to paragraph (1) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 due to the promulgation of additional listings or characteristics for the identification of hazardous waste under section 3001, the period for compliance in paragraph (1) shall be four years after the date of such promulgation, the period for demonstrations under paragraph (4) and for submission of evidence under paragraph (5) shall be not later than twenty-four months after the date of such promulgation, and the period for the Administrator (or if appropriate, the State) to advise such owners or operators under paragraph (5) shall be not later than thirty-six months after the date of promulgation.

"(B) In any case in which a surface impoundment is initially determined to be excluded from the requirements of paragraph (1) but due to a change in condition (including the existence of a leak) no longer satisfies the provisions of paragraph (2), (3), or (4) and therefore becomes subject to paragraph (1), the period for compliance in paragraph (1) shall be two years after the date of discovery of such change of condition, or in the case of a surface impoundment excluded under paragraph (3) three years after such date of discovery.

"(7)(A) The Administrator shall study and report to the Congress on the number, range of size, construction, likelihood of hazardous constituents migrating into ground water, and potential threat to human health and the environment of existing surface impoundments excluded by paragraph (3) from the requirements of paragraph (1). Such report shall address the need, feasibility, and estimated costs of subjecting such existing surface impoundments to the requirements of paragraph (1).

"(B) In the case of any existing surface impoundment or class of surface impoundments from which the Administrator (or the State, in the case of a State with an authorized program) determines hazardous constituents are likely to migrate into ground water, the Administrator (or if appropriate, the State) is authorized to impose such requirements as may be necessary to protect human health and the environment, including the requirements of section 3004(c) which would apply to such impoundments if they were new.

"(C) In the case of any surface impoundment excluded by paragraph (3) from the requirements of paragraph (1) which is subsequently determined to be leaking, the Administrator (or, if appropriate, the State) shall require compliance with paragraph (1), unless the Administrator (or, if appropriate, the State) determines that such compliance is not necessary to protect human health and the environment.

"(8) In the case of any surface impoundment in which the liners and leak detection system have been installed pursuant to the requirements of paragraph (1) and in good faith compliance with section 3004(c) and the Administrator's regulations and guidance documents governing liners and leak detection systems, no liner or

leak detection system which is different from that which was so installed pursuant to paragraph (1) shall be required for such unit by the Administrator when issuing the first permit under this section to such facility. Nothing in this paragraph shall preclude the Administrator from requiring installation of a new liner when the Administrator has reason to believe that any liner installed pursuant to the requirements of this subsection is leaking.

"(9) In the case of any surface impoundment which has been excluded by paragraph (2) on the basis of a liner meeting the definition under paragraph (12)(A)(ii), at the closure of such impoundment the Administrator shall require the owner or operator of such impoundment to remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment shall be required to comply with appropriate post-closure requirements, including but not limited to ground water monitoring and corrective action.

"(10) Any incremental cost attributable to the requirements of this subsection or section 3004(c) shall not be considered by the Administrator (or the State, in the case of a State with an authorized program under section 402 of the Clean Water Act)—

"(A) in establishing effluent limitations and standards under section 301, 304, 306, 307, or 402 of the Clean Water Act based on effluent limitations guidelines and standards promulgated any time before twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984; or

"(B) in establishing any other effluent limitations to carry out the provisions of section 301, 307, or 402 of the Clean Water Act on or before October 1, 1986.

"(11)(A) If the Administrator allows a hazardous waste which is prohibited from one or more methods of land disposal under subsection (d), (e), or (g) of section 3004 (or under regulations promulgated by the Administrator under such subsections) to be placed in a surface impoundment (which is operating pursuant to interim status) for storage or treatment, such impoundment shall meet the requirements that are applicable to new surface impoundments under section 3004(c)(1), unless such impoundment meets the requirements of paragraph (2) or (4).

"(B) In the case of any hazardous waste which is prohibited from one or more methods of land disposal under subsection (d), (e), or (g) of section 3004 (or under regulations promulgated by the Administrator under such subsection) the placement or maintenance of such hazardous waste in a surface impoundment for treatment is prohibited as of the effective date of such prohibition unless the treatment residues which are hazardous are, at a minimum, removed for subsequent management within one year of the entry of the waste into the surface impoundment.

"(12)(A) For the purposes of paragraph (2)(A) of this subsection, the term 'liner' means—

"(i) a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility; or

"(ii) a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility.

"(B) For the purposes of this subsection, the term 'aggressive biological treatment facility' means a system of surface impoundments in which the initial impoundment of the secondary treatment segment of the facility utilizes intense mechanical aeration to enhance biological activity to degrade waste water pollutants and

"(i) the hydraulic retention time in such initial impoundment is no longer than 5 days under normal operating conditions, on an annual average basis;

"(ii) the hydraulic retention time in such initial impoundment is no longer than thirty days under normal operating conditions, on an annual average basis: *Provided*, That the sludge in such impoundment does not constitute a hazardous waste as identified by the extraction procedure toxicity characteristic in effect on the date of enactment of the Hazardous and Solid Waste Amendments of 1984; or

"(iii) such system utilizes activated sludge treatment in the first portion of secondary treatment.

"(C) For the purposes of this subsection, the term 'underground source or drinking water' has the same meaning as provided in regulations under the Safe Drinking Water Act (title XIV of the Public Health Service Act).

"(18) The Administrator may modify the requirements of paragraph (1) in the case of a surface impoundment for which the owner or operator, prior to October 1, 1984, has entered into, and is in compliance with, a consent order, decree, or agreement with the Administrator or a State with an authorized program mandating corrective action with respect to such surface impoundment that provides a degree of protection of human health and the environment which is at a minimum equivalent to that provided by paragraph (1).

"Authorized State Hazardous Waste Programs

"Sec. 3006. (a) Federal Guidelines.—Not later than eighteen months after the date of enactment of this Act, the Administrator, after consultation with State authorities, shall promulgate guidelines to assist States in the development of State hazardous waste programs.

"(b) Authorization of State Program.—Any State which seeks to administer and enforce a hazardous waste program pursuant to this subtitle may develop and, after notice and opportunity for public hearing, submit to the Administrator an application, in such form as he shall require, for authorization of such program. Within ninety days following submission of an application under this subsection, the Administrator shall issue a notice as to whether or not he expects such program to be authorized, and within ninety days following such notice (and after opportunity for public hearing) he shall publish his findings as to whether or not the conditions listed in items (1), (2), and (3) below have been met. Such State is authorized to carry out such program in lieu of the Federal program under this subtitle in such State and to issue and enforce permits for the storage, treatment, or disposal of hazardous waste (and to enforce permits deemed to have been issued under section 3012(d)(1)) unless, within ninety days following submission of the application the Administrator notifies such State that such program may not be authorized and, within ninety days following such notice and after opportunity for public hearing, he finds that (1) such State program is not equivalent to the Federal program under this subtitle, (2) such program is not consistent with the Federal or State programs applicable in other States, or (3) such program does not provide adequate enforcement of compliance with the requirements of this subtitle. In authorizing a State program, the Administrator may base his findings on the Federal program in effect one year prior to submission of a State's application or in effect on January 26, 1983, whichever is later.

[3006(b) amended by PL 98-616]

"(c) Interim Authorization.—(1) Any State which has in existence a hazardous waste program pursuant to State law before the date ninety days after the date of promulgation of regulations under sections 3002, 3003, 3004, and 3005, may submit to the Administrator evidence of such existing program and may request a temporary authorization to carry out such program under this subtitle. The Administrator shall, if the evidence submitted shows the existing State program to be substantially equivalent to the Federal program under this subtitle, grant an interim authorization to the State to carry out such program in lieu of the Federal program pursuant to this subtitle for a period ending no later than January 31, 1986.

[3006(c)(1) designated and amended by PL 98-616]

[3006(c)(2)—(4) added by PL 98-616]

"(2) The Administrator shall, by rule, establish a date for the expiration of interim authorization under this subsection.

"(3) Pending interim or final authorization of a State program for any State which reflects the amendments made by the Hazardous and Solid Waste Amendments of 1984, the State may enter into an agreement with the Administrator under which the State may assist in the administration of the requirements and prohibitions which take effect pursuant to such Amendments.

"(4) In the case of a State permit program for any State which is authorized under subsection (b) or under this subsection, until such program is amended to reflect the amendments made by the Hazardous and Solid Waste Amendments of 1984 and such program amendments receive interim or final authorization, the Administrator shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984. The Administrator shall coordinate with States the procedures for issuing such permits.

"(d) Effect of State Permit.—Any action taken by a State under a hazardous waste program authorized under this section shall have the same force and effect as action taken by the Administrator under this subtitle.

"(e) Withdrawal of Authorization.—Whenever the Administrator determines after public hearing that a State is not administering and enforcing a program authorized under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw authorization of such program and establish a Federal program pursuant to this subtitle. The Administrator shall not withdraw authorization of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

[3006(f) added by PL 98-616]

"(f) AVAILABILITY OF INFORMATION.—No State program may be authorized by the Administrator under this section unless—

"(1) such program provides for the public availability of information obtained by the State regarding facilities and sites for the treatment, storage, and disposal of hazardous waste; and

"(2) such information is available to the public in substantially the same manner, and to the same degree, as would be the case if the Administrator was carrying out the provisions of this subtitle in such State.

[Editor's note: Section 226(b) of PL 98-616 provides:

"(b) The amendment made by subsection (a) shall apply with respect to State programs authorized under section 3006 before, on, or after the date of enactment of the Hazardous and Solid Waste Amendments of 1984."

Subsection (a) added 3006(f) of RCRA.]

"(g) AMENDMENTS MADE BY 1984 ACT.—(1) Any requirement or prohibition which is applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which is imposed under this subtitle pursuant to the amendments made by the Hazardous and Solid Waste Amendments of 1984 shall take effect in each State having an interim or finally authorized State program on the same date as such requirement takes effect in other States. The Administrator shall carry out such requirement directly in each such State unless the State program is finally authorized (or is granted interim authorization as provided in paragraph (2)) with respect to such requirement.

"(2) Any State which, before the date of the enactment of the Hazardous and Solid Waste Amendments of 1984 has an existing hazardous waste program which has been granted interim or final authorization under this section may submit to the Administrator evidence that such existing program contains (or has been amended to include) any requirement which is substantially equivalent to a requirement referred to in paragraph (1) and may request interim authorization to carry out that requirement under this subtitle. The Administrator shall, if the evidence submitted shows the State requirement to be substantially equivalent to the requirement referred to in paragraph (1), grant an interim authorization to the State to carry out such requirement in lieu of direct administration in the State by the Administrator of such requirement.

[3006(g) added by PL 98-616]

"Inspections

"Sec. 3007. (a) Access Entry.—For purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee or representative of a State having an authorized hazardous waste program, furnish information relating to such wastes and permit such person at all reasonable times to have access to, and to copy all records relating to such wastes. For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, such officers, employees or representatives are authorized—

"(1) to enter at reasonable times any establishment or other place where hazardous wastes are or have been generated, stored, treated, disposed of, or transported from;

"(2) to inspect and obtain samples from any person of any such wastes and samples of any containers or labeling for such wastes.

Each such inspection shall be commenced and completed with reasonable promptness. If the officer, employee or representative obtains any samples, prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and if requested a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, a copy of the results of such analysis shall be furnished promptly to the owner, operator, or agent in charge.

[3007(a) amended by PL 96-482]

"(b) Availability to Public.—(1) Any records, reports, or information (including records, reports, or information obtained by representatives of the Environmental Protection Agency) obtained from any person under this section shall be available to the public, except that upon a showing satisfactory to the Administrator (or the State, as the case may be) by any person that records, reports, or information, (including records, reports, or information obtained by representatives of the Environmental Protection Agency) or particular part thereof, to which the Administrator (or the State, as the case may be) or any officer, employee or representative thereof has access under this section if made public, would divulge information (including records, reports, or information obtained by representatives of the Environmental Protection Agency) entitled to protection under section 1905 of title 18 of the United States Code, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United State concerned with carrying out this Act, or when relevant in any proceeding under this Act.

"(2) Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information (including records, reports, or information obtained by representatives of the Environmental Protection Agency) entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

"(3) In submitting data under this Act, a person required to provide such data may—

"(A) designate the data which such person believes is entitled to protection under this subsection, and

"(B) submit such designated data separately from other data submitted under this Act.

A designation under this paragraph shall be made in writing and in such manner as the Administrator may prescribe.

"(4) Notwithstanding any limitation contained in this section or any other provision of law, all information (including records, reports, or information obtained by representatives of the Environmental Protection Agency) reported to, or otherwise obtained by, the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee (including records, reports, or information obtained by representatives of the Environmental Protection Agency).

FEDERAL FACILITIES

"(c) **FEDERAL FACILITY INSPECTIONS.**—Beginning twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall, or in the case of a State with an authorized hazardous waste program the State may, undertake on an annual basis a thorough inspection of each facility for the treatment, storage, or disposal of hazardous waste which is owned or operated by a Federal agency to enforce its compliance with this subtitle and the regulations promulgated thereunder. The records of such inspections shall be available to the public as provided in subsection (b).

[3007(c) added by PL 98-616]

STATE-OPERATED FACILITIES

"(d) **STATE-OPERATED FACILITIES.**—The Administrator shall annually undertake a thorough inspection of every facility for the treatment, storage, or disposal of hazardous waste which is operated by a State or local government for which a permit is required under section 3005 of this title. The records of such inspection shall be available to the public as provided in subsection (b).

[3007(d) added by PL 98-616]

"(e) **MANDATORY INSPECTIONS.**—(1) The Administrator (or the State in the case of a State having an authorized hazardous waste program under this subtitle) shall commence a program to thoroughly inspect every facility for the treatment, storage, or disposal of hazardous waste for which a permit is required under section 3005 no less often than every two years as to its compliance with this subtitle (and the regulations promulgated under this subtitle). Such inspections shall commence not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. The Administrator shall, after notice and opportunity for public comment, promulgate regulations governing the minimum frequency and manner of such inspections, including the manner in which records of such inspections shall be maintained and the manner in which reports of such inspections shall be filed. The Administrator may distinguish between classes and categories of facilities commensurate with the risks posed by each class or category.

"(2) Not later than six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit to the Congress a report on the potential for inspections of hazardous waste treatment, storage, or disposal facilities by nongovernmental inspectors as a supplement to inspections conducted by officers, employees, or representatives of the Environmental Protection Agency or States having authorized hazardous waste programs or operating under a cooperative agreement with the Administrator. Such report shall be prepared in cooperation with the States, insurance companies offering environmental impairment insurance, independent companies providing inspection services, and other such groups as appropriate. Such report shall contain recommendations on provisions and requirements for a program of private inspections to supplement governmental inspections.

[3007(c) added by PL 98-616]

"Federal Enforcement

"Sec. 3008. (a) **Compliance Orders.**—(1) Except as provided in paragraph (2), whenever on the basis of any information the Administrator determines that any person has violated or is in violation of any requirement of this subtitle, the Administrator may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both, or the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

[3008(a)(1) amended by PL 96-482; PL 98-616]

"(2) In the case of a violation of any requirement of this subtitle where such violation occurs in a State which is authorized to carry out a hazardous waste program under section 3006, the Administrator shall give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section.

[3008(a)(2) amended by PL 96-482]

"(3) Any order issued pursuant to this subsection may include a suspension or revocation of any permit issued by the Administrator or a State under this subtitle and shall state with reasonable specificity the nature of the violation. Any penalty assessed in the order shall not exceed \$25,000 per day of noncompliance for each violation of a requirement of this subtitle. In assessing such a penalty, the Administrator shall take into account the seriousness of the violation and any good faith efforts to comply with applicable requirements.

[3008(a)(3) revised by PL 98-616]

"(b) **Public Hearing.**—Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under

this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

[3008(b) amended by PL 96-482; PL 98-616]

"(c) VIOLATION OF COMPLIANCE ORDERS.—If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a civil penalty of not more than \$25,000 for each day of continued noncompliance with the order and the Administrator may suspend or revoke any permit issued to the violator (whether issued by the Administrator or the State).

[3008(c) amended by PL 96-482; revised by PL 98-616]

"(d) Criminal Penalties.—Any person who—

"(1) knowingly transports or causes to be transported any hazardous waste identified or listed under this subtitle to a facility which does not have a permit under this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052).

"(2) knowingly treats, stores, or disposes of any hazardous waste identified or listed under this subtitle—

"(A) without a permit under this subtitle or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); or

"(B) in knowing violation of any material condition or requirement of such permit; or

"(C) in knowing violation of any material condition or requirement of any applicable interim status regulations or standards;

"(3) knowingly omits material information or makes any false material statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

"(4) knowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

"(5) knowingly transports without a manifest, or causes to be transported without a manifest, any hazardous waste required by regulations promulgated under this subtitle (or by a State in the case of a State program authorized under this subtitle) to be accompanied by a manifest; or

"(6) knowingly exports a hazardous waste identified or listed under this subtitle (A) without the consent of the receiving country or, (B) where there exists an international agreement between the United States and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, in a manner which is not in conformance with such agreement.

shall, upon conviction, be subject to a fine of not more than \$50,000 for each day of violation, or imprisonment not to exceed two years (five years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

[3008(d) revised by PL 96-482; PL 98-616]

"(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, disposes of, or exports any hazardous waste identified or listed under this subtitle in violation of paragraph (1), (2), (3), (4), (5), or (6) of subsection (d) of this section who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment for not more than fifteen years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than \$1,000,000.

[3008(e) added by PL 96-482; amended by PL 98-616]

"(f) Special Rules.—For the purposes of subsection (e)—

"(1) A person's state of mind is knowing with respect to—

"(A) his conduct, if he is aware of the nature of his conduct;

"(B) an existing circumstance, if he is aware or believes that the circumstance exists; or

"(C) a result of his conduct, if he is aware or believes that his conduct is substantially certain to cause danger of death or serious bodily injury.

"(2) In determining whether a defendant who is a natural person knew that his conduct placed another person in imminent danger of death or serious bodily injury—

"(A) the person is responsible only for actual awareness or actual belief that he possessed; and

"(B) knowledge possessed by a person other than the defendant but not by the defendant himself may not be attributed to the defendant;

Provided, That in proving the defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to shield himself from relevant information.

"(3) It is an affirmative defense to a prosecution that the conduct charged was consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of—

"(A) an occupation, a business, or a profession; or

"(B) medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent. The defendant may establish an affirmative defense under this subsection by a preponderance of the evidence.

"(4) All general defenses, affirmative defenses, and bars to prosecution that may apply with respect to other Federal criminal offenses may apply under subsection (e) and shall be determined by the courts of the United States according to the principles of common law as they may be interpreted in the light of reason and experience. Concepts of justification and excuse applicable under this section may be developed in the light of reason and experience.

"(5) The term 'organization' means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons.

"(6) The term 'serious bodily injury' means—

"(A) bodily injury which involves a substantial risk of death;

"(B) unconsciousness;

"(C) extreme physical pain;

"(D) protracted and obvious disfigurement; or

"(E) protracted loss or impairment of the function of a bodily member, organ, or mental faculty.

"(g) Civil Penalty.—Any person who violates any requirement of this subtitle shall be liable to the United States for a civil penalty in an amount not to exceed \$25,000 for each such violation. Each day of such violation shall, for purposes of this subsection, constitute a separate violation.

[3008(g) added by PL 96-482]

"(b) **INTERIM STATUS CORRECTIVE ACTION ORDERS.**—(1) Whenever on the basis of any information the Administrator determines that there is or has been a release of hazardous waste into the environment from a facility authorized to operate under section 3005(e) of this subtitle, the Administrator may issue an order requiring corrective action or such other response measure as he deems necessary to protect human health or the environment or the Administrator may commence a civil action in the United States district court in the district in which the facility is located for appropriate relief, including a temporary or permanent injunction.

"(2) Any order issued under this subsection may include a suspension or revocation of authorization to operate under section 3005(e) of this subtitle, shall state with reasonable specificity the nature of the required corrective action or other response measure, and shall specify a time for compliance. If any person named in an order fails to comply with the order, the Administrator may assess, and such

person shall be liable to the United States for, a civil penalty in an amount not to exceed \$25,000 for each day of noncompliance with the order.

[3008(h) added by PL 98-616]

"Retention of State Authority

"Sec. 3009. Upon the effective date of regulations under this subtitle no State or political subdivision may impose any requirements less stringent than those authorized under this subtitle respecting the same matter as governed by such regulations, except that if application of a regulation with respect to any matter under this subtitle is postponed or enjoined by the action of any court, no State or political subdivision shall be prohibited from acting with respect to the same aspect of such matter until such time as such regulation takes effect. Nothing in this title shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations. Nothing in this title (or in any regulation adopted under this title) shall be construed to prohibit any State from requiring that the State be provided with a copy of each manifest used in connection with hazardous waste which is generated within that State or transported to a treatment, storage, or disposal facility within that State.

[3009 amended by PL 96-482; PL 98-616]

"Effective Date

"Sec. 3010. (a) Preliminary Notification.—Not later than ninety days after promulgation of regulations under section 3001 identifying by its characteristics or listing any substance as hazardous waste subject to this subtitle, any person generating or transporting such substance or owning or operating a facility for treatment, storage, or disposal of such substance shall file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) a notification stating the location and general description of such activity and the identified or listed hazardous wastes handled by such person. Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984—

"(1) The owner or operator of any facility which produces a fuel (A) from any hazardous waste identified or listed under section 3001, (B) from such hazardous waste identified or listed under section 3001 and any other material, (C) from used oil, or (D) from used oil and any other material;

poses of energy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001; and

"(3) any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001 shall file with the Administrator (and with the State in the case of a State with an authorized hazardous waste program) a notification stating the location and general description of the facility, together with a description of the identified or listed hazardous waste involved and, in the case of a facility referred to in paragraph (1) or (2), a description of the production or energy recovery activity carried out at the facility and such other information as the Administrator deems necessary. For purposes of the preceding provisions, the term 'hazardous waste listed under section 3001' also includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel. Notification shall not be required under the second sentence of this subsection in the case of facilities (such as residential boilers) where the Administrator determines that such notification is not necessary in order for the Administrator to obtain sufficient information respecting current practices of facilities using hazardous waste for energy recovery. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). Nothing in this subsection shall affect regulatory determinations under section 3014. In revising any regulation under section 3001 identifying additional characteristics of hazardous waste or listing any additional substance as hazardous waste subject to this subtitle, the Administrator may require any person referred to in the preceding provisions to file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) the notification described in the preceding provisions. Not more than one such notification shall be required to be filed with respect to the same substance. No identified or listed hazardous waste subject to this subtitle may be transported, treated, stored, or disposed of unless notification has been given as required under this subsection.

[3010(a) amended by PL 96-482; revised by PL 98-616]

"(b) Effective Date of Regulation.—The regulations under this subtitle respecting requirements applicable to the generation, transportation, treatment, storage, or

posals) shall take effect on the date six months after the date of promulgation thereof (or six months after the date of revision in the case of any regulation which is revised after the date required for promulgation thereof). At the time a regulation is promulgated, the Administrator may provide for a shorter period prior to the effective date, or an immediate effective date for:

"(1) a regulation with which the Administrator finds the regulated community does not need six months to come into compliance;

"(2) a regulation which responds to an emergency situation; or

"(3) other good cause found and published with the regulation.

[3010(b) amended by PL 98-616]

"Authorization of Assistance to States

"Sec. 3011. (a) Authorization.—There is authorized to be appropriated \$25,000,000 for each of the fiscal years 1978 and 1979, \$20,000,000 for fiscal year 1980, \$35,000,000 for fiscal year 1981, \$40,000,000 for the fiscal year 1982, \$55,000,000 for the fiscal year 1985, \$60,000,000 for the fiscal year 1986, \$60,000,000 for the fiscal year 1987, and \$60,000,000 for the fiscal year 1988 to be used to make grants to the States for purposes of assisting the States in the development and implementation of authorized State hazardous waste programs.

[3011(a) amended by PL 96-482; PL 98-616]

"(b) Allocation.—Amounts authorized to be appropriated under subsection (a) shall be allocated among the States on the basis of regulations promulgated by the Administrator, after consultation with the States, which take into account, the extent to which hazardous waste is generated, transported, treated, stored, and disposed of within such State, the extent of exposure of human beings and the environment within such State to such waste, and such other factors as the Administrator deems appropriate.

"(c) Activities Included.—State hazardous waste programs for which grants may be made under subsection (a) may include (but shall not be limited to) planning for hazardous waste treatment, storage and disposal facilities, and the development and execution of programs to protect health and the environment from inactive facilities which may contain hazardous waste.

[3011(c) added by PL 96-482]

"Hazardous Waste Site Inventory

"Sec. 3012. (a) State Inventory Programs.—Each State shall, as expeditiously as practicable, undertake a continuing program to compile, publish, and submit to the Administrator an inventory describing the location of each site within such State at which hazardous waste has at any time been stored or disposed of. Such inventory shall contain—

"(1) a description of the location of the sites at which any such storage or disposal has taken place before the date on which permits are required under section 3005 for such storage or disposal;

"(2) such information relating to the amount, nature, and toxicity of the hazardous waste at each such site as may be practicable to obtain and as may be necessary to determine the extent of any health hazard which may be associated with such site;

"(3) the name and address, or corporate headquarters of, the owner of each such site, determined as of the date of preparation of the inventory;

"(4) an identification of the types or techniques of waste treatment or disposal which have been used at each such site; and

"(5) information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

For purposes of assisting the States in compiling information under this section, the Administrator shall make available to each State undertaking a program under this section such information as is available to him concerning the items specified in paragraphs (1) through (5) with respect to the sites within such State, including such information as the Administrator is able to obtain from other agencies or departments of the United States and from surveys and studies carried out by any committee or subcommittee of the Congress. Any State may exercise the authority of section 3007 for purposes of this section in the same manner and to the same extent as provided in such section in the case of States having an authorized hazardous waste program, and any State may by order require any person to submit such information as may be necessary to compile the data referred to in paragraphs (1) through (5).

"(b) Environmental Protection Agency Program.—If the Administrator determines that any State program under subsection (a) is not adequately providing information respecting the sites in such State referred to in subsection (a), the Administrator shall

notify the State. If within ninety days following such notification, the State program has not been revised or amended in such manner as will adequately provide such information, the Administrator shall carry out the inventory program in such State. In any such case—

"(1) the Administrator shall have the authorities provided with respect to State programs under subsection (a);

"(2) the funds allocated under subsection (c) for grants to States under this section may be used by the Administrator for carrying out such program in such State; and

"(3) no further expenditure may be made for grants to such State under this section until such time as the Administrator determines that such State is carrying out, or will carry out, an inventory program which meets the requirements of this section.

"(c) Grants.—(1) Upon receipt of an application submitted by any State to carry out a program under this section, the Administrator may make grants to the States for purposes of carrying out such a program. Grants under this section shall be allocated among the several States by the Administrator based upon such regulations as he prescribes to carry out the purposes of this section. The Administrator may make grants to any State which has conducted an inventory program which effectively carried out the purposes of this section before the date of the enactment of the Solid Waste Disposal Act Amendments of 1980 to reimburse such State for all, or any portion of, the costs incurred by such State in conducting such program.

"(2) There are authorized to be appropriated to carry out this section \$25,000,000 for each of the fiscal years 1985 through 1988.

[3012(c)(2) amended by PL 98-616]

"(d) No Impediment to Immediate Remedial Action.—Nothing in this section shall be construed to provide that the Administrator or any State should, pending completion of the inventory required under this section, postpone undertaking any enforcement or remedial action with respect to any site at which hazardous waste has been treated, stored, or disposed of.

[3012 added by PL 96-482]

"Monitoring, Analysis, and Testing

"Sec. 3013. (a) Authority of Administrators.—If the Administrator determines, upon receipt of any information, that—

"(1) the presence of any hazardous waste at a facility or site at which hazardous waste is, or has been, stored, treated, or disposed of, or

"(2) the release of any such waste from such facility or site may present a substantial hazard to human health or the environment, he may issue an order requiring the owner or operator of such facility or site to conduct such monitoring, testing, analysis, and reporting with respect to such facility or site as the Administrator deems reasonable to ascertain the nature and extent of such hazard.

"(b) Previous Owners and Operators.—In the case of any facility or site not in operation at the time a determination is made under subsection (a) with respect to the facility or site, if the Administrator finds that the owner of such facility or site could not reasonably be expected to have actual knowledge of the presence of hazardous waste at such facility or site and of its potential for release, he may issue an order requiring the most recent previous owner or operator of such facility or site who could reasonably be expected to have such actual knowledge to carry out the actions referred to in subsection (a).

"(c) Proposal.—An order under subsection (a) or (b) shall require the person to whom such order is issued to submit to the Administrator within 30 days from the issuance of such order a proposal for carrying out the required monitoring, testing, analysis, and reporting. The Administrator may, after providing such person with an opportunity to confer with the Administrator respecting such proposal, require such person to carry out such monitoring, testing, analysis, and reporting in accordance with such proposal, and such modifications in such proposal as the Administrator deems reasonable to ascertain the nature and extent of the hazard.

"(d) Monitoring, Etc., Carried Out by Administrator.—(1) If the Administrator determines that no owner or operator referred to in subsection (a) or (b) is able to conduct monitoring, testing, analysis, or reporting satisfactory to the Administrator, if the Administrator deems any such action carried out by an owner or operator to be unsatisfactory, or if the Administrator cannot initially determine that there is an owner or operator referred to in subsection (a) or (b) who is able to conduct such monitoring, testing, analysis, or reporting, he may—

"(A) conduct monitoring, testing, or analysis (or any combination thereof) which he deems reasonable to ascertain the nature and extent of the hazard associated with the site concerned, or

"(B) authorize a State or local authority or other person to carry out any such action, and require, by order, the owner or operator referred to in subsection (a) or (b) to reimburse the Administrator or other authority or person for the costs of such activity.

"(2) No order may be issued under this subsection requiring reimbursement of the costs of any action carried out by the Administrator which confirms the results of an order issued under subsection (a) or (b).

"(3) For purposes of carrying out this subsection, the Administrator or any authority or other person authorized under paragraph (1), may exercise the authorities set forth in section 3007.

"(e) Enforcement.—The Administrator may commence a civil action against any person who fails or refuses to comply with any order issued under this section. Such action shall be brought in the United States district court in which the defendant is located, resides, or is doing business. Such court shall have jurisdiction to require compliance with such order and to assess a civil penalty of not to exceed \$5,000 for each day during which such failure or refusal occurs.

[3013 added by PL 96-482]

"Restrictions on Recycled Oil

"Sec. 3014. (a) In General.—Not later than one year after the date of the enactment of this section, the Administrator shall promulgate regulations establishing such performance standards and other requirements as may be necessary to protect the public health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil, consistent with the protection of human health and the environment.

[3012 added by PL 96-463; amended and redesignated as 3014(a) by PL 98-616]

"(b) IDENTIFICATION OR LISTING OF USED OIL AS HAZARDOUS WASTE.—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 the Administrator shall propose whether to list or identify used automobile and truck crankcase oil as hazardous waste under section 3001. Not later than twenty-four months after such date of enactment, the Administrator shall make a final determination whether to list or identify used automobile and truck crankcase oil and other used oil as hazardous wastes under section 3001.

[3014(b) and (c) added by PL 98-616]

"(c) USED OIL WHICH IS RECYCLED.—(1) With respect to generators and transporters of used oil identified or listed as a hazardous waste under section 3001, the standards promulgated under section 3001(d), 3002, and 3003 of this subtitle shall not apply to such used oil if such used oil is recycled.

"(2)(A) In the case of used oil which is exempt under paragraph (1), not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate such standards under this subsection regarding the generation and transportation of used oil which is recycled as may be necessary to protect human health and the environment. In

promulgating such regulations with respect to generators, the Administrator shall take into account the effect of such regulations on environmentally acceptable types of used oil recycling and the effect of such regulations on small quantity generators and generators which are small businesses (as defined by the Administrator).

"(B) The regulations promulgated under this subsection shall provide that no generator of used oil which is exempt under paragraph (1) from the standards promulgated under section 3001(d), 3002, and 3003 shall be subject to any manifest requirement or any associated recordkeeping and reporting requirement with respect to such used oil if such generator—

"(i) either—

"(I) enters into an agreement or other arrangement (including an agreement or arrangement with an independent transporter or with an agent of the recycler) for delivery of such used oil to a recycling facility which has a permit under section 3005(c) (or for which a valid permit is deemed to be in effect under subsection (d)), or

"(II) recycles such used oil at one or more facilities of the generator which has such a permit under section 3005 of this subtitle (or for which a valid permit is deemed to have been issued under subsection (d) of this section);

"(ii) such used oil is not mixed by the generator with other types of hazardous wastes; and

"(iii) the generator maintains such records relating to such used oil, including records of agreements or other arrangements for delivery of such used oil to any recycling facility referred to in clause (i)(I), as the Administrator deems necessary to protect human health and the environment.

"(3) The regulations under this subsection regarding the transportation of used oil which is exempt from the standards promulgated under section 3001(d), 3002, and 3003 under paragraph (1) shall require the transporters of such used oil to deliver such used oil to a facility which has a valid permit under section 3005 of this subtitle or which is deemed to have a valid permit under subsection (d) of this section. The Administrator shall also establish other standards for such transporters as may be necessary to protect human health and the environment.

"(d) PERMITS.—(1) The owner or operator of a facility which recycles used oil which is exempt under subsection (c)(1), shall be deemed to have a permit under this subsection for all such treatment or recycling (and any associated tank or container storage) if such owner and operator comply with standards promulgated by the Administrator under section 3004; except that the Administrator may require such owners and operators to obtain an individual permit under section 3005(c) if he determines that an individual permit is necessary to protect human health and the environment.

"(2) Notwithstanding any other provision of law, any generator who recycles used oil which is exempt under subsection (c)(1) shall not be required to obtain a permit under section 3005(c) with respect to such used oil until the Administrator has promulgated standards under section 3004 regarding the recycling of such used oil.

[3015 through 3019 added by PL 98-616]

"EXPANSION DURING INTERIM STATUS

"Sec. 3015. (a) WASTE PILES.—The owner or operator of a waste pile qualifying for the authorization to operate under section 3005(e) shall be subject to the same requirements for liners and leachate collection systems or equivalent protection provided in regulations promulgated by the Administrator under section 3004 before October 1, 1982, or revised under section 3004(o) (relating to minimum technological requirements), for new facilities receiving individual permits under subsection (c) of section 3005, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under section 3005, and with respect to waste received beginning six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

"(b) LANDFILLS AND SURFACE IMPOUNDMENTS.—(1) The owner or operator of a landfill or surface impoundment qualifying for the authorization to operate under section 3005(e) shall be subject to the requirements of section 3004(o) (relating to minimum technological requirements), with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning 6 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

"(2) The owner or operator of each unit referred to in paragraph (1) shall notify the Administrator (or the State, if appropriate) at least sixty days prior to receiving waste. The Administrator (or the State) shall require the filing, within six months of receipt of such notice, of an application for a final determination regarding the issuance of a permit for each facility submitting such notice.

"(3) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of this section and in good faith compliance with the Administrator's regulations and guidance documents governing liners and leachate collection systems, no liner or leachate collection system which is different from that which was so installed pursuant to this section shall be required for such unit by the Administrator when issuing the first permit under section 3005 to such facility, except that the Administrator shall not be precluded from requiring installation of a new liner when the Administrator has reason to believe that any liner installed pursuant to the requirements of this section is leaking. The Administrator may, under section 3004, amend the requirements for liners and leachate collection systems required under this section as may be necessary to provide additional protection for human health and the environment.

"INVENTORY OF FEDERAL AGENCY HAZARDOUS WASTE FACILITIES

"Sec. 3016. (a) Each Federal agency shall undertake a continuing program to compile, publish, and submit to the Administrator (and to the State in the case of sites in States having an authorized hazardous waste program) an inventory of each site which the Federal agency owns or operates or has owned or operated at which hazardous waste is stored, treated, or disposed of or has been disposed of at any time. The inventory shall be submitted every two years beginning January 31, 1986. Such inventory shall be available to the public as provided in section 3007(b). Information previously submitted by a Federal agency under section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or under section 3005 or 3010 of this Act, or under this section need not be resubmitted except that the agency shall update any previous submission to reflect the latest available data and information. The inventory shall include each of the following:

"(1) A description of the location of each site at which any such treatment, storage, or disposal has taken place before the date on which permits are required under section 3005 for such storage, treatment, or disposal, and where hazardous waste has been disposed, a description of hydrogeology of the site and the location of withdrawal wells and surface water within one mile of the site.

"(2) Such information relating to the amount, nature, and toxicity of the hazardous waste in each site as may be necessary to determine the extent of any health hazard which may be associated with any site.

"(3) Information on the known nature and extent of environmental contamination at each site, including a description of the monitoring data obtained.

"(4) Information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated, stored, or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

list of sites at which hazardous waste has been disposed and environmental monitoring data has not been obtained, and the reasons for the lack of monitoring data at each site.

"(6) A description of response actions undertaken or contemplated at contaminated sites.

"(7) An identification of the types of techniques of waste treatment, storage, or disposal which have been used at each site.

"(8) The name and address and responsible Federal agency for each site, determined as of the date of preparation of the inventory.

"(b) ENVIRONMENTAL PROTECTION AGENCY PROGRAM.—If the Administrator determines that any Federal agency under subsection (a) is not adequately providing information respecting the sites referred to in subsection (a), the Administrator shall notify the chief official of such agency. If within ninety days following such notification, the Federal agency has not undertaken a program to adequately provide such information, the Administrator shall carry out the inventory program for such agency.

"EXPORT OF HAZARDOUS WASTE

"Sec. 3017. (a) IN GENERAL.—Beginning twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, no person shall export any hazardous waste identified or listed under this subtitle unless

"(1)(A) such person has provided the notification required in subsection (c) of this section,

"(B) the government of the receiving country has consented to accept such hazardous waste,

"(C) a copy of the receiving country's written consent is attached to the manifest accompanying each waste shipment, and

"(D) the shipment conforms with the terms of the consent of the government of the receiving country required pursuant to subsection (e), or

"(2) the United States and the government of the receiving country have entered into an agreement as provided for in subsection (f) and the shipment conforms with the terms of such agreement.

"(b) REGULATIONS.—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate the regulations necessary to implement this section. Such regulations shall become effective one hundred and eighty days after promulgation.

"(c) NOTIFICATION.—Any person who intends to export a hazardous waste identified or listed under this subtitle beginning twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, shall, before such hazardous waste is scheduled to leave the United States, provide notification to the Administrator. Such notification shall contain the following information:

"(1) the name and address of the exporter;

"(2) the types and estimated quantities of hazardous waste to be exported;

"(3) the estimated frequency or rate at which such waste is to be exported; and the period of time over which such waste is to be exported;

"(4) the ports of entry;

"(5) a description of the manner in which such hazardous waste will be transported to and treated, stored, or disposed in the receiving country; and

"(6) the name and address of the ultimate treatment, storage or disposal facility.

"(d) PROCEDURES FOR REQUESTING CONSENT OF THE RECEIVING COUNTRY.—Within thirty days of the Administrator's receipt of a complete notification under this section, the Secretary of State, acting on behalf of the Administrator, shall—

"(1) forward a copy of the notification to the government of the receiving country;

the export of hazardous waste unless the receiving country consents to accept the hazardous waste;

"(3) request the government to provide the Secretary with a written consent or objection to the terms of the notification; and

"(4) forward to the government of the receiving country a description of the Federal regulations which would apply to the treatment, storage, and disposal of the hazardous waste in the United States.

"(e) CONVEYANCE OF WRITTEN CONSENT TO EXPORTER.—Within thirty days of receipt by the Secretary of State of the receiving country's written consent or objection (or any subsequent communication withdrawing a prior consent or objection), the Administrator shall forward such a consent, objection, or other communication to the exporter.

"(f) INTERNATIONAL AGREEMENTS.—Where there exists an international agreement between the United States and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, only the requirements of subsections (a)(2) and (g) shall apply.

"(g) REPORTS.—After the date of enactment of the Hazardous and Solid Waste Amendments of 1984, any person who exports any hazardous waste identified or listed under section 3001 of this subtitle shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year.

"(h) OTHER STANDARDS.—Nothing in this section shall preclude the Administrator from establishing other standards for the export of hazardous wastes under section 3002 or section 3003 of this subtitle.

"DOMESTIC SEWAGE

"Sec. 3018. (a) REPORT.—The Administrator shall, not later than 15 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, submit a report to the Congress concerning those substances identified or listed under section 3001 which are not regulated under this subtitle by reason of the exclusion for mixtures of domestic sewage and other wastes that pass through a sewer system to a publicly owned treatment works. Such report shall include the types, size and number of generators which dispose of such substances in this manner, the types and quantities disposed of in this manner, and the identification of significant generators, wastes, and waste constituents not regulated under existing Federal law or regulated in a manner sufficient to protect human health and the environment.

"(b) REVISIONS OF REGULATIONS.—Within eighteen months after submitting the report specified in subsection (a), the Administrator shall revise existing regulations and promulgate such additional regulations pursuant to this subtitle (or any other authority of the Administrator, including section 307 of the Federal Water Pollution Control Act) as are necessary to assure that substances identified or listed under section 3001 which pass through a sewer system to a publicly owned treatment works are adequately controlled to protect human health and the environment.

"(c) REPORT ON WASTEWATER LAGOONS.—The Administrator shall, within thirty-six months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, submit a report to Congress concerning wastewater lagoons at publicly owned treatment works and their effect on groundwater quality. Such report shall include—

"(1) the number and size of such lagoons;

"(2) the types and quantities of waste contained in such lagoons;

"(3) the extent to which such waste has been or may be released from such lagoons and contaminate ground water; and

"(4) available alternatives for preventing or controlling such releases.

The Administrator may utilize the authority of sections 3007 and 3013 for the purpose of completing such report.

"(d) APPLICATION OF SECTION 3010 AND SECTION 3007.—The provisions of sections 3007 and 3010 shall apply to solid or dissolved materials in domestic sewage to the same extent and in the same manner as such provisions apply to hazardous waste.

"EXPOSURE INFORMATION AND HEALTH ASSESSMENTS

"SEC. 3019. (a) EXPOSURE INFORMATION.—Beginning on the date nine months after the enactment of the Hazardous and Solid Waste Amendments of 1984, each application for a final determination regarding a permit under section 3005(c) for a landfill or surface impoundment shall be accompanied by information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

- "(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;
- "(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (1); and
- "(3) the potential magnitude and nature of the human exposure resulting from such releases.

The owner or operator of a landfill or surface impoundment for which an application for such a final determination under section 3005(c) has been submitted prior to the date of enactment of the Hazardous and Solid Waste Amendments of 1984 shall submit the information required by this subsection to the Administrator (or the State, in the case of a State with an authorized program) no later than the date nine months after such date of enactment.

"(b) HEALTH ASSESSMENTS.—(1) The Administrator (or the State, in the case of a State with an authorized program) shall make the information required by subsection (a), together with other relevant information, available to the Agency for Toxic Substances and Disease Registry established by section 104(j) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

"(2) Whenever in the judgment of the Administrator, or the State (in the case of a State with an authorized program), a landfill or a surface impoundment poses a substantial potential risk to human health, due to the existence of releases of hazardous constituents, the magnitude of contamination with hazardous constituents which may be the result of a release, or the magnitude of the population exposed to such release or contamination, the Administrator or the State (with the concurrence of the Administrator) may request the Administrator of the Agency for Toxic Substances and Disease Registry to conduct a health assessment in connection with such facility and take other appropriate action with respect to such risks as authorized by section 104 (b) and (i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980. If funds are provided in connection with such request the Administrator of such Agency shall conduct such health assessment.

"(c) MEMBERS OF THE PUBLIC.—Any member of the public may submit evidence of releases of or exposure to hazardous constituents from such a facility, or as to the risks or health effects associated with such releases or exposure, to the Administrator of the Agency for Toxic Substances and Disease Registry, the Administrator, or the State (in the case of a State with an authorized program).

"(d) PRIORITY.—In determining the order in which to conduct health assessments under this subsection, the Administrator of the Agency for Toxic Substances and Disease Registry shall give priority to those facilities or sites at which there is documented evidence of release of hazardous constituents, at which the potential risk to human health appears highest, and for which in the judgment of the Administrator of such Agency existing health assessment data is

inadequate to assess the potential risk to human health as provided in subsection (f).

"(e) PERIODIC REPORTS.—The Administrator of such Agency shall issue periodic reports which include the results of all the assessments carried out under this section. Such assessments or other activities shall be reported after appropriate peer review.

"(f) DEFINITION.—For the purposes of this section, the term 'health assessments' shall include preliminary assessments of the potential risk to human health posed by individual sites and facilities subject to this section, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified contaminants and any available recommended exposure or tolerance limits for such contaminants, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The assessment shall include an evaluation of the risks to the potentially affected population from all sources of such contaminants, including known point or nonpoint sources other than the site or facility in question. A purpose of such preliminary assessments shall be to help determine whether full-scale health or epidemiological studies and medical evaluations of exposed populations shall be undertaken.

"(g) COST RECOVERY.—In any case in which a health assessment performed under this section discloses the exposure of a population to the release of a hazardous substance, the costs of such health assessment may be recovered as a cost of response under section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 from persons causing or contributing to such release of such hazardous substance or, in the case of multiple releases contributing to such exposure, to all such release."

"Subtitle D—State or Regional Solid Waste Plans

"Objectives of Subtitle

"Sec. 4001. The objectives of this subtitle are to assist in developing and encouraging methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation. Such objectives are to be accomplished through Federal technical and financial assistance to States or regional authorities for comprehensive planning pursuant to Federal guidelines designed to foster cooperation among Federal, State, and local governments and private industry. In developing such comprehensive plans, it is the intention of this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipate future needs, including those needs created by thorough implementation of section 6002(h), of the recycling and resource recovery interest within the area encompassed by the planning process.

[400] amended by PL 96-482; PL 98-616]

ANEJO C-9

Subtítulo G

Resource Conservation and Recovery Act (RCRA)

Miscellaneous Provisions

Section 7003 (Imminent Hazard)

RESOURCE RECOVERY ACT

"(g) TRANSPORTERS.—A transporter shall not be deemed to have contributed or to be contributing to the handling, storage, treatment, or disposal, referred to in subsection (a)(1)(B) taking place after such solid waste or hazardous waste has left the possession or control of such transporter, if the transportation of such waste was under a sole contractual arrangement arising from a published tariff and acceptance for carriage by common carrier by rail and such transporter has exercised due care in the past or present handling, storage, treatment, transportation and disposal of such waste.

[7002(g) added by PL 98-616]

"Imminent Hazard

"Sec. 7003. (a) Authority of Administrator.—Notwithstanding any other provision of this Act, upon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States in the appropriate district court against any person (including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage or disposal facility) who has contributed or who is contributing to such handling, storage, treatment, transportation or disposal to restrain such person from such handling, storage, treatment, transportation, or disposal, to order such person to take such other action as may be necessary, or both. A transporter shall not be deemed to have contributed or to be contributing to such handling, storage, treatment, or disposal taking place after such solid waste or hazardous waste has left the possession or control of such transporter if the transportation of such waste was under a sole contractual arrangement arising from a published tariff and acceptance for carriage by common carrier by rail and such transporter has exercised due care in the past or present handling, storage, treatment, transportation and disposal of such waste. The Administrator shall provide notice to the affected State of any such suit. The Administrator may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect public health and the environment.

[7003(a) designated and amended by PL 96-482; amended by PL 98-616]

"(b) Violations.—Any person who willfully violates, or fails or refuses to comply with, any order of the Administrator under subsection (a) may, in an action brought in the appropriate United States district court to enforce such order, be fined not more than \$5,000 for each day in which such violation occurs or such failure to comply continues.

[7003(b) added by PL 96-482]

"(c) IMMEDIATE NOTICE.—Upon receipt of information that there is hazardous waste at any site which has presented an imminent and substantial endangerment to human health or the environment, the Administrator shall provide immediate notice to the appropriate local government agencies. In addition, the Administrator shall require notice of such endangerment to be promptly posted at the site where the waste is located.

[7003(c) added by PL 98-616]

"(d) PUBLIC PARTICIPATION IN SETTLEMENTS.—Whenever the United States or the Administrator proposes to covenant not to sue or to forbear from suit or to settle any claim arising under this section, notice, and opportunity for a public meeting in the affected area, and a reasonable opportunity to comment on the proposed settlement prior to its final entry shall be afforded to the public. The decision of the United States or the Administrator to enter into or not to enter into such Consent Decree, covenant or agreement shall not constitute a final agency action subject to judicial review under this Act or the Administrative Procedure Act.

[7003(d) added by PL 98-616]

"Petition for Regulations; Public Participation

"Sec. 7004. (a) Petition.—Any person may petition the Administrator for the promulgation, amendment, or repeal of any regulation under this Act. Within a reasonable time following receipt of such petition, the Administrator shall take action with respect to such petition and shall publish notice of such action in the Federal Register together with the reasons therefor.

"(b)(1) Public Participation.—Public participation in the development, revision, implementation, and enforcement of any regulation, guideline, information, or program under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish minimum guidelines for public participation in such processes.

[7004(b)(1) designated by PL 96-482]

"(2) Before the issuing of a permit to any person with any respect to any facility for the treatment, storage, or disposal of hazardous wastes under section 3005, the Administrator shall—

"(A) cause to be published in major local newspapers of general circulation and broadcast over local radio stations notice of the agency's intention to issue such permit, and

"(B) transmit in writing notice of the agency's intention to issue such permit to each unit of local government having jurisdiction over the area in which such facility if proposed to be located and to each State agency having any authority under State law with respect to the construction or operation of such facility.

If within 45 days the Administrator receives written notice of opposition to the agency's intention to issue such permit and a request for a hearing, or if the Administrator determines on his own initiative, he shall hold an informal public hearing (including an opportu-

ANEJO C-10
40 CFR Parte 112
Oil Pollution Prevention

ENVIRONMENTAL PROTECTION AGENCY REGULATIONS ON OIL POLLUTION PREVENTION

(40 CFR 112; 38 FR 34164, December 11, 1973; Amended by 39 FR 31602,
August 29, 1974; 41 FR 12657, March 26, 1976)

PART 112—OIL POLLUTION PREVENTION Non-transportation Related Onshore and Offshore Facilities

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (Sen. 2, Pub. L. 92-500, 86 Stat. 818 et seq. (33 U.S.C. 1261 et seq.)); Sec. 4(b), Pub. L. 92-500, 86 Stat. 807; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 18423, 3 CFR 1000-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in sec. 312 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(A) onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of manmade features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(B) equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(A) the underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(B) the storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

[41 FR 12657, March 26, 1976]

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

§ 112.2 Definitions.

For the purposes of this part:

(a) "Oil" means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) "Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term "discharge" shall not include any discharge of oil which is authorized by a permit issued pursuant to Section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or Sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 818 et seq., 33 U.S.C. 1261 et seq.).

(c) "Onshore facility" means any facility of any kind located in, on, or

under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) "Offshore facility" means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) "Owner or operator" means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) "Person" includes an individual, firm, corporation, association, and a partnership.

(g) "Regional Administrator" means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) "Transportation-related" and "non-transportation-related" as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(i) "Spill event" means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR Part 110.

(j) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

(1) all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) interstate waters;

(3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) "Vessel" means every description of watercraft or other artificial contriv-

ance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in writing and in accordance with section 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

[41 FR 12657, March 26, 1976]

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with section 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

[41 FR 12657, March 26, 1976]

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good

engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraphs (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraphs (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f) (1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f) (2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b) (5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;
(2) Name(s) of the owner or operator of the facility;
(3) Location of the facility;
(4) Date and year of initial facility operation;
(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is neces-

ary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[41 FR 12657, March 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners

and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of Oil Pollution Prevention Regulations.

Owners or operators of facilities subject to § 112.3(a), (b) or (c) who violate the requirements of this Part 112 by failing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than \$5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in Part 114 of this subchapter D.

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive

systems or its equivalent should be used as a minimum:

(1) Onshore facilities.
(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil

(ii) Curbing
(iii) Culverting, gutters or other drainage systems

(iv) Weirs, booms or other barriers

(v) Spill diversion ponds

(vi) Retention ponds

(vii) Sorbent materials

(2) Offshore facilities.

(i) Curbing, drip pans

(ii) Sumps and collection systems

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7 (c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) Facility drainage (onshore): (excluding production facilities). (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or implant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraph (e)(3)(iii) (B, C and D) before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in

the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore)*; (excluding production facilities). (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

(C) The bypass valve is opened, and released following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore)*; (excluding production facilities). (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore)*. (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*.

(i) *Definition*. An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage*. (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraph (a)(3)(iii)(B), (C), and (D). Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks*. (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(1) Adequate tank capacity to assure that a tank will not overflow should a pumper/gauger be delayed in making his regular rounds.

(2) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(3) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(4) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(8) *Oil drilling and workover facilities (onshore)* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any well-head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent overpressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good

operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings

should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX

Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency.

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding in-line or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) "Transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

ATTACHMENT B-2
Appendix I
Representative Sampling Methods

ANEJO B-2
Appendix I
Representative Sampling Methods

APPENDIX I—REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65

Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," * U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," *

This manual also contains additional information on application of these protocols.

ANEJO B-14
Appendix VII
Basis for Listing Hazardous Waste

Appendix VII—Basis for Listing Hazardous Waste

[Appendix VII amended by 45 FR 47833, July 16, 1980; revised by 45 FR 74890, November 12, 1980; 46 FR 4617, January 16, 1981; 49 FR 5312, February 10, 1984; 50 FR 1999, January 14, 1985; 50 FR 42942, October 23, 1985; 51 FR 5330, February 13, 1986; 51 FR 6541, February 25, 1986]

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, trichlorofluoromethane
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene
U01	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Cyanide (salts)
F008	Cyanide (salts)
F009	Cyanide (salts)
F010	Cyanide (salts)
F011	Cyanide (salts)
F012	Cyanide (complexed)
F019	Hexavalent chromium, cyanide (complexed)
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F023	Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetra-chlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-

Appendix VII—Basis for Listing Hazardous Waste—Continued

EPA hazardous waste No.	Hazardous constituents for which listed
	tetra- chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclonexane, benzene, chlorobenzene, dichlorobenzene, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresols, chrysene, naphthalene, fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead
K004	Hexavalent chromium
K005	Hexavalent chromium, lead
K006	Hexavalent chromium
K007	Cyanide (complexed), hexavalent chromium
K008	Hexavalent chromium
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraaldehyde, formic acid, chloroacetaldehyde
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraaldehyde, formic acid, chloroacetaldehyde
K011	Acrylonitrile, acetonitrile, hydrocyanic acid
K013	Hydrocyanic acid, acrylonitrile, acetonitrile
K014	Acetonitrile, acrylamide
K015	Benzyl chloride, chlorobenzene, toluene, benzotrithionide
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, pentachloroethylene
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols

Appendix VII—Basis for Listing Hazardous Waste—Continued

EPA hazardous waste No.	Hazardous constituents for which listed
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
K021	Arsenic, carbon tetrachloride, chloroform
K022	Phenol; tars (polycyclic aromatic hydrocarbons)
K023	Phthalic anhydride, maleic anhydride
K024	Phthalic anhydride, 1,4-naphthoquinone
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene
K026	Paraaldehyde, pyridines, 2-picoline
K027	Toluene diisocyanate, toluene-2, 4-diamine
K028	1,1,1-trichloroethane, vinyl chloride
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride
K031	Arsenic
K032	Hexachlorocyclopentadiene
K033	Hexachlorocyclopentadiene
K034	Hexachlorocyclopentadiene
K035	Cresols, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
K036	Toluene, phosphorodithioic and phosphorothioic acid esters
K037	Toluene, phosphorodithioic and phosphorothioic acid esters
K038	Phorale, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K039	Phosphorodithioic and phosphorothioic acid esters
K040	Phorale, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K041	Toxaphene
K042	Hexachlorobenzene, ortho-dichlorobenzene
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol
K044	N.A.
K045	N.A.
K046	Lead

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity

K047	N.A.
K048	Hexavalent chromium, lead
K049	Hexavalent chromium, lead
K050	Hexavalent chromium
K051	Hexavalent chromium, lead
K052	Lead
K060	Cyanide, naphthalene, phenolic compounds, arsenic
K061	Hexavalent chromium, lead, cadmium
K062	Hexavalent chromium, lead
K069	Hexavalent chromium, lead, cadmium
K071	Mercury
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine
K084	Arsenic
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride
K086	Lead, hexavalent chromium
K087	Phenol, naphthalene
K088	Phthalic anhydride, maleic anhydride
K094	Phthalic anhydride
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane
K097	Chlordane, heptachlor
K098	Toxaphene
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol
K100	Hexavalent chromium, lead, cadmium
K101	Arsenic
K102	Arsenic
K103	Aniline, nitrobenzene, phenylenediamine
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol
K106	Mercury
K111	2,4-Dinitrotoluene
K112	2,4-Toluenediamine, p-toluidine, p-toluidine, aniline
K113	2,4-Toluenediamine, p-toluidine, p-toluidine, aniline
K114	2,4-Toluenediamine, p-toluidine, p-toluidine
K115	2,4-Toluenediamine
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene
K117	Ethylene dibromide
K118	Ethylene dibromide
K136	Ethylene dibromide

N.A.—Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

ANEJO B-15

Appendix A (Método 3)

Gas Analysis for Carbon Dioxide,
Oxygen, Excess Air and Dry Molecular Weight

and carbon monoxide (CO) concentrations are measured at the outlet. Then the ratio of total carbon at the incinerator inlet and outlet is multiplied by the inlet volume to determine the exhaust volume and volume flow rate.

2. Apparatus.

2.1 *Volume Meter.* Equipment described in Method 2A.

2.2 *Organic Analyzers (2).* Equipment described in Method 25A or 25B.

[2.2 head corrected by 48 FR 56580, December 22, 1983]

2.3 *CO Analyzer.* Equipment described in Method 10.

2.4 *CO₂ Analyzer.* A nondispersive infrared (NDIR) CO₂ analyzer and supporting equipment with comparable specifications as CO analyzer described in Method 10.

3. Procedure.

3.1 *Inlet Installation.* Install a volume meter in the vapor line to incinerator inlet according to the procedure in Method 2A. At the volume meter inlet, install a sample probe as described in Method 25A. Connect to the probe a leak-tight, heated (if necessary to prevent condensation) sample line (stainless steel or equivalent) and an organic analyzer system as described in Method 25A or 25B.

[3.1 corrected by 48 FR 56580, December 22, 1983]

3.2 *Exhaust Installation.* Three sample analyzers are required for the incinerator exhaust: CO₂, CO, and organic analyzers. A sample manifold with a single sample probe may be used. Install a sample probe as described Method 25A. Connect a leak-tight heated sample line to the sample probe. Heat the sample line sufficiently to prevent any condensation.

3.3 *Recording Requirements.* The output of each analyzer must be permanently recorded on an analog strip chart, digital recorder, or other recording device. The chart speed or number of readings per time unit must be similar for all analyzers so that data can be correlated. The minimum data recording requirement for each analyzer is one measurement value per minute.

3.4 *Preparation.* Prepare and calibrate all equipment and analyzers according to the procedures in the respective methods. For the CO₂ analyzer, follow the procedures described in Method 10 for CO analysis substituting CO₂ calibration gas where the method calls for CO calibration gas. The span value for the CO₂ analyzer shall be 15 percent by volume. All calibration gases must be introduced at the connection between the probe and the sample line. If a manifold system is used for the exhaust analyzers, all the analyzers and sample pumps must be operating when the calibrations are done. Note: For the purposes of this test, methane should not be used as an organic calibration gas.

3.5 *Sampling.* At the beginning of the test period, record the initial parameters for the inlet volume meter according to the procedures in Method 2A and mark all of the

recorder strip charts to indicate the start of the test. Continue recording inlet organic and exhaust CO₂, CO, and organic concentrations throughout the test. During periods of process interruption and halting of gas flow, stop the timer and mark the recorder strip charts so that data from this interruption are not included in the calculations. At the end of the test period, record the final parameters for the inlet volume meter and mark the end on all of the recorder strip charts.

3.6 *Post Test Calibrations.* At the conclusion of the sampling period, introduce the calibration gases as specified in the respective reference methods. If an analyzer output does not meet the specifications of the method, invalidate the test data for the period. Alternatively, calculate the volume results using initial calibration data and using final calibration data and report both resulting volumes. Then, for emissions calculations, use the volume measurement resulting in the greatest emission rate or concentration.

4. Calculations.

Carry out the calculations, retaining at least one extra decimal figure beyond that of the acquired data. Round off figures after the final calculation.

4.1 Nomenclature

[4.1 corrected by 48 FR 56580, December 22, 1983]

CO_m = Mean carbon monoxide concentration in system exhaust, ppmv.

CO_{2m} = Mean carbon dioxide concentration in system exhaust, ppmv.

HC_m = Mean organic concentration in system exhaust as defined by the calibration gas, ppmv.

HC_i = Mean organic concentration in system inlet as defined by the calibration gas, ppmv.

[Corrected by 48 FR 56580, December 22, 1983]

K = Calibration gas factor
= 2 for ethane calibration gas.

[4.1 "K" definition corrected by 48 FR 56580, December 22, 1983]

= 3 for propane calibration gas.

= 4 for butane calibration gas.

= Appropriate response factor for other calibration gas.

V_{ex} = Exhaust gas volume, M³.

V_{in} = Inlet gas volume, M³.

Q_{ex} = Exhaust gas volume flow rate, m³/min.

Q_{in} = Inlet gas volume flow rate, m³/min.

t = Sample run time, min.

Θ = Standard Conditions: 20°C, 760 mm Hg.

300 = Estimated concentration of ambient CO₂, ppmv. (CO₂ concentration in the ambient air may be measured during the test period using an NDIR.)

[Corrected by 48 FR 56580, December 22, 1983]

4.2 *Concentrations.* Determine mean concentrations of inlet organics, outlet CO₂, outlet CO, and outlet organics according to the procedures in the respective methods and

the analyzers' calibration curves, and for the time intervals specified in the applicable regulations. Concentrations should be determined on a parts per million by volume (ppmv) basis.

[4.2 corrected by 48 FR 56580, December 22, 1983]

4.3 *Exhaust Gas Volume.* Calculate the exhaust gas volume as follows:

$$V_{ex} = V_{in} \frac{K(HC_i)}{K(HC_{ex}) + CO_{2m} + CO_m - 300}$$

[4.3 corrected by 48 FR 56580, December 22, 1983]

Eq. 2B-1

4.4 *Exhaust Gas Volume Flow Rate.*

Calculate the exhaust gas volume flow rate as follows:

$$Q_{ex} = \frac{V_{ex}}{t}$$

Eq. 2B-2

5. Bibliography.

5.1 *Measurement of Volatile Organic Compounds.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711. Publication No. EPA-450/2-78-041. October 1978. p. 55.

METHOD 3—GAS ANALYSIS FOR CARBON DIOXIDE, OXYGEN, EXCESS AIR, AND DRY MOLECULAR WEIGHT

1. Principle and Apparatus

1.1 *Principle.* A gas sample is extracted from a stack, by one of the following methods: (1) single-point, grab sampling; (2) single-point, integrated sampling; or (3) multi-point, integrated sampling. The gas sample is analyzed for percent carbon dioxide (CO₂), percent oxygen (O₂), and, if necessary, percent carbon monoxide (CO). If a dry molecular weight determination is to be made, either an Orsat or a Fyrite¹ analyzer may be used for the analysis; for excess air or emission rate correction factor determination, an Orsat analyzer must be used.

1.2 *Applicability.* This method is applicable for determining CO₂ and O₂ concentrations, excess air, and dry molecular weight of a sample from a gas stream of a fossil-fuel combustion process. The method may also be applicable to other processes where it has been determined that compounds other than CO₂, O₂, CO, and nitrogen (N₂) are not present in concentrations sufficient to affect the results.

Other methods, as well as modifications to the procedure described herein, are also applicable for some or all of the above determinations. Examples of specific methods and modifications include: (1) a multi-point sampling method using an Orsat analyzer to analyze individual grab samples obtained at each point; (2) a method using CO₂ or O₂ and stoichiometric calculations to determine dry molecular weight and excess air; (3) assigning a value of 30.0 for dry molecular weight, in lieu of actual measurements, for processes burning natural gas, coal, or oil. These methods and modifications may be used, but are subject to the approval of the Administrator. U.S. Environmental Protection Agency

2. Apparatus

As an alternative to the sampling apparatus and systems described herein, other sampling systems (e.g., liquid displacement) may be used provided such systems are capable of obtaining a representative sample and maintaining a constant sampling rate, and are otherwise capable of yielding acceptable results. Use of such systems is subject to the approval of the Administrator.

2.1 *Grab Sampling (Figure 3-1).*

2.1.1 *Probe.* The probe should be made of stainless steel or borosilicate glass tubing and should be equipped with an in-stack or out-stack filter to remove particulate matter (a plug of glass wool is satisfactory for this purpose). Any other material inert to O₂, CO₂, CO, and N₂ and resistant to temperature at sampling conditions may be used for the probe; examples of such material are aluminum, copper, quartz glass and Teflon.

2.1.2 *Pump.* A one-way squeeze bulb, or equivalent, is used to transport the gas sample to the analyzer.

2.2 *Integrated Sampling (Figure 3-2).*

2.2.1 *Probe.* A probe such as that described in Section 2.1.1 is suitable.

¹ Mention of trade names or specific products does not constitute endorsement by the Environmental Protection Agency.

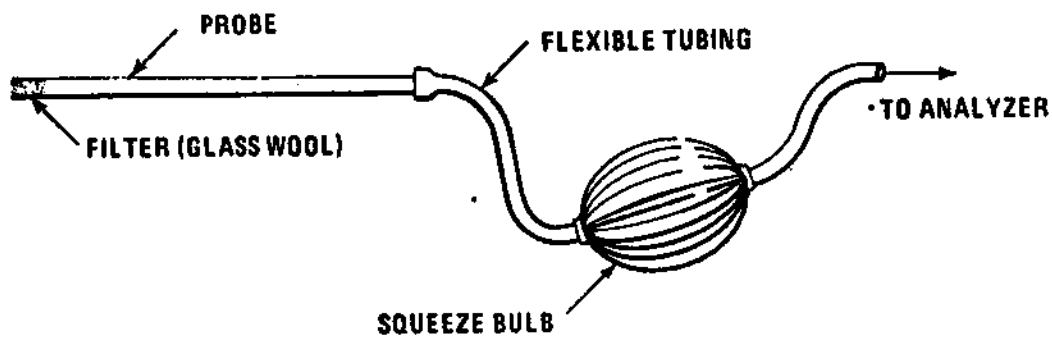


Figure 3-1. Grab sampling train.

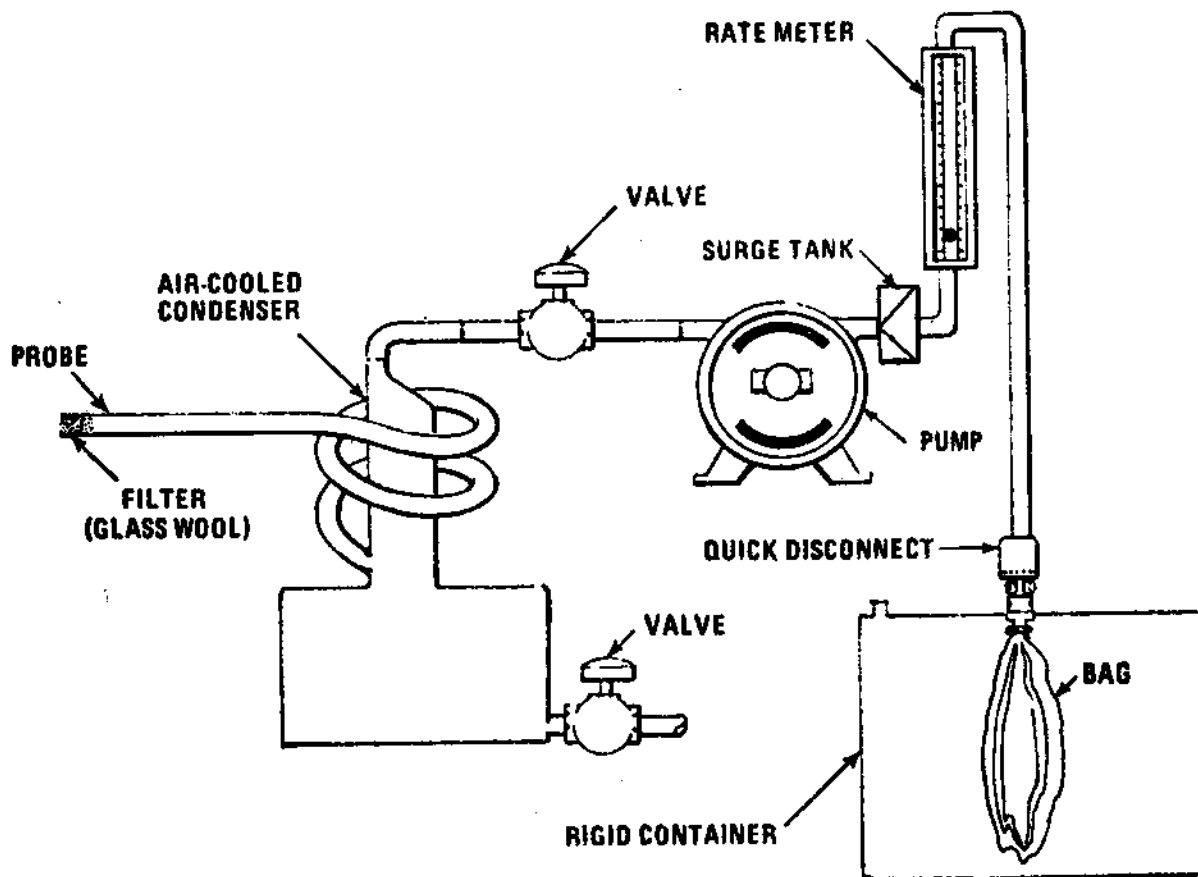


Figure 3-2. Integrated gas-sampling train.

[43 FR 1495, January 10, 1978]

[Appendix A, Method 3]

2.2.2 Condenser. An air-cooled or water-cooled condenser, or other condenser that will not remove O_2 , CO_2 , CO , and N_2 , may be used to remove excess moisture which would interfere with the operation of the pump and flow meter.

2.2.3 Valve. A needle valve is used to adjust sample gas flow rate.

2.2.4 Pump. A leak-free, diaphragm-type pump, or equivalent, is used to transport sample gas to the flexible bag. Install a small surge tank between the pump and rate meter to eliminate the pulsation effect of the diaphragm pump on the rotameter.

2.2.5 Rate Meter. The rotameter, or equivalent rate meter, used should be capable of measuring flow rate to within ± 2 percent of the selected flow rate. A flow rate range of 500 to 1000 cm^3/min is suggested.

2.2.6 Flexible Bag. Any leak-free plastic (e.g., Tedlar, Mylar, Teflon) or plastic-coated aluminum (e.g., aluminized Mylar) bag, or equivalent, having a capacity consistent with the selected flow rate and time length of the test run, may be used. A capacity in the range of 55 to 90 liters is suggested.

To leak-check the bag, connect it to a water manometer and pressurize the bag to 5 to 10 cm H_2O (2 to 4 in. H_2O). Allow to stand for 10 minutes. Any displacement in the water manometer indicates a leak. An alternative leak-check method is to pressurize the bag to 5 to 10 cm H_2O (2 to 4 in. H_2O) and allow to stand overnight. A deflated bag indicates a leak.

2.2.7 Pressure Gauge. A water-filled U-tube manometer, or equivalent, of about 28 cm (12 in.) is used for the flexible bag leak-check.

2.2.8 Vacuum Gauge. A mercury manometer, or equivalent, of at least 760 mm Hg (30 in. Hg) is used for the sampling train leak-check.

2.3 Analysis. For Orsat and Fyrite analyzer maintenance and operation procedures, follow the instructions recommended by the manufacturer, unless otherwise specified herein.

2.3.1 Dry Molecular Weight Determination. An Orsat analyzer or Fyrite type combustion gas analyzer may be used.

2.3.2 Emission Rate Correction Factor or Excess Air Determination. An Orsat analyzer must be used. For low CO , (less than 4.0 percent) or high O_2 , (greater than 15.0 percent) concentrations, the measuring burette of the Orsat must have at least 0.1 percent subdivisions.

3. Dry Molecular Weight Determination

Any of the three sampling and analytical procedures described below may be used for determining the dry molecular weight.

3.1 Single-Point, Grab Sampling and Analytical Procedure.

3.1.1 The sampling point in the duct shall either be at the centroid of the cross section or at a point no closer to the walls than 1.00 m (3.3 ft), unless otherwise specified by the Administrator.

3.1.2 Set up the equipment as shown in Figure 3-1, making sure all connections ahead of the analyzer are tight and leak-free. If an Orsat analyzer is used, it is recommended that the analyzer be leak-checked by following the procedure in Section 5; however, the leak-check is optional.

3.1.3 Place the probe in the stack, with the tip of the probe positioned at the sampling point; purge the sampling line. Draw a sample into the analyzer and immediately analyze it for percent CO_2 and percent O_2 . Determine the percentage of the gas that is N_2 and CO by subtracting the sum of the percent CO_2 and percent O_2 from 100 percent. Calculate the dry molecular weight as indicated in Section 6.3.

3.1.4 Repeat the sampling, analysis, and calculation procedures, until the dry molecular weights of any three grab samples differ from their mean by no more than 0.3 g/g-mole (0.3 lb/lb-mole). Average these three molecular weights, and report the results to the nearest 0.1 g/g-mole (lb/lb-mole).

3.2 Single-Point, Integrated Sampling and Analytical Procedure.

3.2.1 The sampling point in the duct shall be located as specified in Section 3.1.1.

3.2.2 Leak-check (optional) the flexible bag as in Section 2.2.6. Set up the equipment as shown in Figure 3-2. Just prior to sampling, leak-check (optional) the train by placing a vacuum gauge at the condenser inlet, pulling a vacuum of at least 250 mm Hg (10 in. Hg), plugging the outlet at the quick disconnect, and then turning off the pump. The vacuum should remain stable for at least 0.5 minute. Evacuate the flexible bag. Connect the probe and place it in the stack, with the tip of the probe positioned at the sampling point; purge the sampling line. Next, connect the bag and make sure that all connections are tight and leak free.

3.2.3 Sample at a constant rate. The sampling run should be simultaneous with, and for the same total length of time as, the pollutant emission rate determination. Collection of at least 30 liters (1.00 ft³) of sample

gas is recommended; however, smaller volumes may be collected, if desired.

3.2.4 Obtain one integrated flue gas sample during each pollutant emission rate determination. Within 8 hours after the sample is taken, analyze it for percent CO_2 and percent O_2 using either an Orsat analyzer or a Fyrite-type combustion gas analyzer. If an Orsat analyzer is used, it is recommended that the Orsat leak-check described in Section 5 be performed before this determination; however, the check is optional. Determine the percentage of the gas that is N_2 and CO by subtracting the sum of the percent CO_2 and percent O_2 from 100 percent. Calculate the dry molecular weight as indicated in Section 6.3.

3.2.5 Repeat the analysis and calculation procedures until the individual dry molecular weights for any three analyses differ from their mean by no more than 0.3 g/g-mole (0.3 lb/lb-mole). Average these three molecular weights, and report the results to the nearest 0.1 g/g-mole (0.1 lb/lb-mole).

3.3 Multi-Point, Integrated Sampling and Analytical Procedure.

3.3.1 Unless otherwise specified by the Administrator, a minimum of eight traverse points shall be used for circular stacks having diameters less than 0.61 m (24 in.), a minimum of nine shall be used for rectangular stacks having equivalent diameters less than 0.61 m (24 in.), and a minimum of twelve traverse points shall be used for all other cases. The traverse points shall be located according to Method 1. The use of fewer points is subject to approval of the Administrator.

3.3.2 Follow the procedures outlined in sections 3.2.2 through 3.2.5, except for the following: traverse all sampling points and sample at each point for an equal length of time. Record sampling data as shown in Figure 3-3.

4. Emission Rate Correction Factor or Excess Air Determination

NOTE: A Fyrite-type combustion gas analyzer is not acceptable for excess air or emission rate correction factor determination, unless approved by the Administrator. If both percent CO_2 and percent O_2 are measured, the analytical results of any of the three procedures given below may also be used for calculating the dry molecular weight.

Each of the three procedures below shall be used only when specified in an applicable subpart of the standards. The use of these procedures for other purposes must have specific prior approval of the Administrator.

4.1 Single-Point, Grab Sampling and Analytical Procedure.

4.1.1 The sampling point in the duct shall either be at the centroid of the cross-section or at a point no closer to the walls than 1.00 m (3.3 ft), unless otherwise specified by the Administrator.

4.1.2 Set up the equipment as shown in Figure 3-1, making sure all connections ahead of the analyzer are tight and leak-free. Leak-check the Orsat analyzer according to the procedure described in Section 5. This leak-check is mandatory.

TIME	TRAVERSE PT.	Q 1pm	% DEV. ^a
AVERAGE			

$$^a \% \text{ DEV} = \left(\frac{Q \cdot Q_{\text{avg}}}{Q_{\text{avg}}} \right) 100 \quad (\text{MUST BE } \leq 10\%)$$

Figure 3-3. Sampling rate data.

4.1.3 Place the probe in the stack, with the tip of the probe positioned at the sampling point; purge the sampling line. Draw a sample into the analyzer. For emission rate correction factor determination, immediately analyze the sample, as outlined in Sections 4.1.4 and 4.1.5, for percent CO, or percent O₂. If excess air is desired, proceed as follows: (1) immediately analyze the sample, as in Sections 4.1.4 and 4.1.5, for percent CO₂, O₂, and CO; (2) determine the percentage of the gas that is N₂ by subtracting the sum of the percent CO₂, percent O₂, and percent CO from 100 percent; and (3) calculate percent excess air as outlined in Section 6.2.

4.1.4 To insure complete absorption of the CO₂, O₂, or if applicable, CO, make repeated passes through each absorbing solution until two consecutive readings are the same. Several passes (three or four) should be made between readings. (If constant readings cannot be obtained after three consecutive readings, replace the absorbing solution.)

4.1.5 After the analysis is completed, leak-check (mandatory) the Orsat analyzer once again, as described in Section 5. For the results of the analysis to be valid, the Orsat analyzer must pass this leak test before and after the analysis.

NOTE: Since this single-point, grab sampling and analytical procedure is normally conducted in conjunction with a single-point, grab sampling and analytical procedure for a pollutant, only one analysis is ordinarily conducted. Therefore, great care must be taken to obtain a valid sample and analysis. Although in most cases only CO₂ or O₂ is required, it is recommended that both CO₂ and O₂ be measured, and that Section 4.4 be used to validate the analytical data.

[4.1.5 Note amended by 48 FR 49459, October 25, 1983]

4.2 Single-Point, Integrated Sampling and Analytical Procedure.

4.2.1 The sampling point in the duct shall be located as specified in Section 4.1.1.

4.2.2 Leak-check (mandatory) the flexible bag as in Section 2.2.6. Set up the equipment as shown in Figure 3-2. Just prior to sampling, leak-check (mandatory) the train by placing a vacuum gauge at the condenser inlet, pulling a vacuum of a least 250 mm Hg (10 in. Hg), plugging the outlet at the quick disconnect, and then turning off the pump. The vacuum shall remain stable for at least 0.5 minute. Evacuate the flexible bag. Connect the probe and place it in the stack, with the tip of the probe positioned at the sampling point; purge the sampling line. Next, connect the bag and make sure that all connections are tight and leak free.

4.2.3 Sample at a constant rate, or as specified by the Administrator. The sampling run must be simultaneous with, and for the same total length of time as, the pollutant emission rate determination. Collect at least 30 liters (1.00 ft³) of sample gas. Smaller volumes may be collected, subject to approval of the Administrator.

4.2.4 Obtain one integrated flue gas sample during each pollutant emission rate determination. For emission rate correction factor determination, analyze the sample within 4 hours after it is taken for percent CO₂ or percent O₂ (as outlined in Sections 4.2.5 through 4.2.7). The Orsat analyzer must be leak-checked (see Section 5) before the analysis. If excess air is desired, proceed as follows: (1) within 4 hours after the sample is taken, analyze it (as in Sections 4.2.5 through 4.2.7) for percent CO₂, O₂, and CO; (2) determine the percentage of the gas that is N₂ by subtracting the sum of the percent CO₂, percent O₂, and percent CO from 100 percent; (3) calculate percent excess air, as outlined in Section 6.2.

4.2.5 To insure complete absorption of the CO₂, O₂, or if applicable, CO, make repeated passes through each absorbing solution until two consecutive readings are the same. Several passes (three or four) should be made between readings. (If constant readings cannot be obtained after three consecutive readings, replace the absorbing solution.)

4.2.6 Repeat the analysis until the following criteria are met:

4.2.6.1 For percent CO₂, repeat the analytical procedure until the results of any three analyses differ by no more than (a) 0.3 percent by volume when CO₂ is greater than 4.0 percent or (b) 0.2 percent by volume when CO₂ is less than or equal to 4.0 percent. Average the three acceptable values of percent CO₂ and report the results to the nearest 0.1 percent.

[Appendix A, Method 3]

4.2.6.2 For percent O_2 , repeat the analytical procedure until the results of any three analyses differ by no more than (a) 0.3 percent by volume when O_2 is less than 15.0 percent or (b) 0.2 percent by volume when O_2 is greater than or equal to 15.0 percent. Average the three acceptable values of percent O_2 and report the results to the nearest 0.1 percent.

4.2.6.3 For percent CO , repeat the analytical procedure until the results of any three analyses differ by no more than 0.3 percent. Average the three acceptable values of percent CO and report the results to the nearest 0.1 percent.

4.2.7 After the analysis is completed, leak-check (mandatory) the Orsat analyzer once again, as described in Section 5. For the results of the analysis to be valid, the Orsat analyzer must pass this leak test before an after the analysis.

NOTE. Although in most instances only CO_2 or O_2 is required, it is recommended that both CO_2 and O_2 be measured, and that Section 4.4 to be used to validate the analytical data.

[4.2.7 Note amended by 48 FR 49459, October 25, 1983]

4.3 Multi-Point, Integrated Sampling and Analytical Procedure.

4.3.1 Both the minimum number of sampling points and the sampling point location shall be as specified in Section 3.3.1 of this method. The use of fewer points than specified is subject to the approval of the Administrator.

4.3.2 Follow the procedures outlined in Sections 4.2.2 through 4.2.7, except for the following: Traverse all sampling points and sample at each point for an equal length of time. Record sampling data as shown in Figure 3-3.

[Section 4.4 added by 48 FR 49459, October 25, 1983]

4.4 Quality Control Procedures.

4.4.1 Data Validation When Both CO_2 and O_2 Are Measured. Although in most instances, only CO_2 or O_2 measurement is required, it is recommended that both CO_2 and O_2 be measured to provide a check on the quality of the data. The following quality control procedure is suggested.

NOTE—Since the method for validating the CO_2 and O_2 analyses is based on combustion of organic and fossil fuels and dilution of the gas stream with air, this method does not apply to sources that (1) remove CO_2 or O_2 through processes other than combustion, (2) add O_2 (e.g., oxygen enrichment) and N_2 in proportions different from that of air, (3) add CO_2 (e.g., cement or lime kilns), or (4) have no fuel factor, F_a , values obtainable (e.g., extremely variable waste mixtures). This

method validates the measured proportions of CO_2 and O_2 for the fuel type, but the method does not detect sample dilution resulting from leaks during or after sample collection. The method is applicable for samples collected downstream of most lime or limestone flue-gas desulfurization units as the CO_2 added or removed from the gas stream is not significant in relation to the total CO_2 concentration. The CO_2 concentrations from other types of scrubbers using only water or basic slurry can be significantly affected and would render the F_a check minimally useful.

4.4.1.1 Calculate a fuel factor, F_a , using the following equation:

$$F_a = \frac{20.9 - \%O_2}{\%CO_2} \quad \text{Eq. 3-3}$$

Where:

$\%O_2$ = Percent O_2 by volume (dry basis).

$\%CO_2$ = Percent CO_2 by volume (dry basis).

20.9 = Percent O_2 by volume in ambient air.

If CO is present in quantities measurable by this method, adjust the O_2 and CO_2 values before performing the calculation for F_a as follows:

$$\%CO_2(\text{adj}) = \%CO_2 + \%CO$$

$$\%O_2(\text{adj}) = \%O_2 - 0.5\%CO$$

Where: $\%CO$ = Percent CO by volume (dry basis).

4.4.1.2 Compare the calculated F_a factor with the expected F_a values. The following table may be used in establishing acceptable ranges for the expected F_a if the fuel being burned is known. When fuels are burned in combination, calculate the combined fuel F_a and F_a factors (as defined in Method 19) according to the procedure in Method 19 Section 5.2.3. Then calculate the F_a factor as follows:

$$F_a = \frac{0.209 F_a}{F_a} \quad \text{Eq. 3-4}$$

Fuel type	F_a range
Coal:	
Anthracite and lignite	1.016-1.130
Bituminous	1.063-1.220
Oil:	
Distillate	1.260-1.413
Residual	1.210-1.370
Gas:	
Natural	1.600-1.836
Propane	1.434-1.566
Butane	1.406-1.563
Wood	1.000-1.120
Wood bark	1.003-1.130

Calculated F_a values beyond the acceptable ranges shown in this table should be investigated before accepting the test results. For example, the strength of the solutions in the gas analyzer and the analyzing technique should be checked by sampling and analyzing a known concentration, such as air; the fuel factor should be reviewed and verified. An acceptability range of ± 12 percent is appropriate for the F_a factor of mixed fuels with variable fuel ratios. The level of the emission rate relative to the compliance level should be considered in determining if a retest is appropriate, i.e., if the measured emissions are much lower or much greater than the compliance limit, repetition of the test would not significantly change the compliance status of the source and would be unnecessarily time-consuming and costly.

5. Leak-Check Procedure for Orsat Analyzers

Moving an Orsat analyzer frequently causes it to leak. Therefore, an Orsat analyzer should be thoroughly leak-checked on site before the flue gas sample is introduced into it. The procedure for leak-checking an Orsat analyzer is:

5.1.1 Bring the liquid level in each pipette up to the reference mark on the capillary tubing and then close the pipette stopcock.

5.1.2 Raise the leveling bulb sufficiently to bring the confining liquid meniscus onto the graduated portion of the burette and then close the manifold stopcock.

5.1.3 Record the meniscus position.

5.1.4 Observe the meniscus in the burette and the liquid level in the pipette for movement over the next 4 minutes.

5.1.5 For the Orsat analyzer to pass the leak-check, two conditions must be met.

5.1.5.1 The liquid level in each pipette must not fall below the bottom of the capillary tubing during this 4-minute interval.

5.1.5.2 The meniscus in the burette must not change by more than 0.2 ml during this 4-minute interval.

5.1.6 If the analyzer fails the leak-check procedure, all rubber connections and stopcocks should be checked until the cause of the leak is identified. Leaking stopcocks must be disassembled, cleaned, and re-greased. Leaking rubber connections must be replaced. After the analyzer is reassembled, the leak-check procedure must be repeated.

[Appendix A, Method 3]

6. Calculations

6.1 Nomenclature.

M_0 = Dry molecular weight, g/g-mole (lb/lb-mole).

%EA = Percent excess air.

%CO₂ = Percent CO₂ by volume (dry basis).

%O₂ = Percent O₂ by volume (dry basis).

%CO = Percent CO by volume (dry basis).

%N₂ = Percent N₂ by volume (dry basis).

0.264 = Ratio of O₂ to N₂ in air, v/v.

0.280 = Molecular weight of N₂ or CO, divided by 100.

0.320 = Molecular weight of O₂, divided by 100.

0.440 = Molecular weight of CO₂, divided by 100.

6.2 Percent Excess Air. Calculate the percent excess air (if applicable), by substituting the appropriate values of percent O₂, CO, and N₂ (obtained from Section 4.1.3 or 4.2.4) into Equation 3-1.

$$\%EA = \left[\frac{\%O_2 - 0.5\%CO}{0.264\%N_2(\%O_2 - 0.5\%CO)} \right] 100$$

Equation 3-1

NOTE: The equation above assumes that ambient air is used as the source of O₂ and that the fuel does not contain appreciable amounts of N₂ (as do coke oven or blast furnace gases). For those cases when appreciable amounts of N₂ are present (coal, oil, and natural gas do not contain appreciable amounts of N₂) or when oxygen enrichment is used, alternate methods, subject to approval of the Administrator, are required.

6.3 Dry Molecular Weight. Use Equation 3-2 to calculate the dry molecular weight of the stack gas

$$M_d = 0.440(\%CO_2) + 0.320(\%O_2) + 0.280(\%N_2 + \%CO)$$

Equation 3-2

NOTE: The above equation does not consider argon in air (about 0.9 percent, molecular weight of 37.7). A negative error of about 0.4 percent is introduced. The tester may opt to include argon in the analysis using procedures subject to approval of the Administrator.

7. Bibliography

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Method 3A—Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)

[Method 3A added by 51 FR 21165, June 11, 1986]

1. Applicability and Principle.

1.1 Applicability. This method is applicable to the determination of oxygen (O₂) and carbon dioxide (CO₂) concentrations in emissions from stationary sources only when specified within the regulations.

1.2 Principle. A sample is continuously extracted from the effluent stream; a portion of the sample stream is conveyed to an instrumental analyzer(s) for determination of O₂ and CO₂ concentration(s). Performance specifications and test procedures are provided to ensure reliable data.

2. Range and Sensitivity.

Same as Method 6C, Sections 2.1 and 2.2, except that the span of the monitoring system shall be selected such that the average O₂ or CO₂ concentration is not less than 20 percent of the span.

3. Definitions.

3.1 Measurement System. The total equipment required for the determination of the O₂ or CO₂ concentration. The measurement system consists of the same major subsystems as defined in Method 6C, Sections 3.1.1, 3.1.2, and 3.1.3.

3.2 Span, Calibration Gas, Analyzer Calibration Error, Sampling System Bias, Zero Drift, Calibration Drift, Response Time, and Calibration Curve. Same as Method 6C, Sections 3.2 through 3.8, and 3.10.

3.3 Interference Response. The output response of the measurement system to a component in the sample gas, other than the gas component being measured.

4. Measurement System Performance Specifications.

Same as Method 6C, Sections 4.1 through 4.4.

5. Apparatus and Reagents.

5.1 Measurement System. Any measurement system for O₂ or CO₂ that meets the specifications of this method. A schematic of an acceptable measurement system is shown in Figure 6C-1 of Method 6C. The essential components of the measurement system are described below:

5.1.1 Sample Probe. A leak-free probe, of sufficient length to traverse the sample points.

5.1.2 Sample Line. Tubing, to transport the sample gas from the probe to the moisture removal system. A heated sample line is not required for systems that measure the O₂ or CO₂ concentration on a dry basis, or transport dry gases.

5.1.3 Sample Transport Line. Calibration Valve Assembly, Moisture Removal System, Particulate Filter, Sample Pump, Sample Flow Rate Control, Sample Gas Manifold, and Data Recorder. Same as Method 6C, Sections 5.1.3 through 5.1.9, and 5.1.11, except that the requirements to use stainless steel, Teflon, and nonreactive glass filters do not apply.

5.1.4 Gas Analyzer. An analyzer to determine continuously the O₂ or CO₂ concentration in the sample gas stream. The analyzer shall meet the applicable performance specifications of Section 4. A means of controlling the analyzer flow rate and a device for determining proper sample flow rate (e.g., precision rotameter, pressure gauge downstream of all flow controls, etc.) shall be provided at the analyzer. The

requirements for measuring and controlling the analyzer flow rate are not applicable if data are presented that demonstrate the analyzer is insensitive to flow variations over the range encountered during the test.

5.2 Calibration Gases. The calibration gases for CO₂ analyzers shall be CO₂ in N₂ or CO₂ in air. Alternatively, CO₂/SO₂, O₂/SO₂, or O₂/CO₂/SO₂ gas mixtures in N₂ may be used. Three calibration gases, as specified Section 5.3.1 through 5.3.3 of Method 6C, shall be used. For O₂ monitors that cannot analyze zero gas, a calibration gas concentration equivalent to less than 10 percent of the span may be used in place of zero gas.

6. Measurement System Performance Test Procedures.

Perform the following procedures before measurement of emissions (Section 7).

6.1 Calibration Concentration Verification. Follow Section 6.1 of Method 6C, except if calibration gas analysis is required, use Method 3 and change the acceptance criteria for agreement among Method 3 results to 5 percent (or 0.2 percent by volume, whichever is greater).

6.2 Interference Response. Conduct an interference response test of the analyzer prior to its initial use in the field. Thereafter, recheck the measurement system if changes are made in the instrumentation that could alter the interference response (e.g., changes in the type of gas detector). Conduct the interference response in accordance with Section 5.4 of Method 20.

6.3 Measurement System Preparation, Analyzer Calibration Error, and Sampling System Bias Check. Follow Sections 6.2 through 6.4 of Method 6C.

7. Emission Test Procedure.

7.1 Selection of Sampling Site and Sampling Points. Select a measurement site and sampling points using the same criteria that are applicable to tests performed using Method 3.

7.2 Sample Collection. Position the sampling probe at the first measurement point, and begin sampling at the same rate as used during the sampling system bias check. Maintain constant rate sampling (i.e., ± 10 percent) during the entire run. The sampling time per run shall be the same as for tests conducted using Method 3 plus twice the system response time. For each run, use only those measurements obtained after twice the response time of the measurement system has elapsed to determine the average effluent concentration.

7.3 Zero and Calibration Drift Test. Follow Section 7.4 of Method 6C.

8. Quality Control Procedures.

The following quality control procedures are recommended when the results of this method are used for an emission rate correction factor, or excess air determination. The tester should select one of the following options for validating measurement results:

8.1 If both O₂ and CO₂ are measured using Method 3A, the procedures described in Section 4.4 of Method 3 should be followed to validate the O₂ and CO₂ measurement results.

8.2 If only O₂ is measured using Method 3A, measurements of the sample stream CO₂ concentration should be obtained at the sample by-pass vent discharge using an Orsat

[Appendix A, Method 3A]

or Fyrite analyzer, or equivalent. Duplicate samples should be obtained concurrent with at least one run. Average the duplicate Orsat or Fyrite analysis results for each run. Use the average CO₂ values for comparison with the O₂ measurements in accordance with the procedures described in Section 4.4 of Method 3.

8.3 If only CO₂ is measured using Method 3A, concurrent measurements of the sample stream CO₂ concentration should be obtained using an Orsat or Fyrite analyzer as described in Section 8.2. For each run, differences greater than 0.5 percent between the Method 3A results and the average of the duplicate Fyrite analysis should be investigated.

9. Emission Calculation.

For all CO₂ analyzers, and for O₂ analyzers that can be calibrated with zero gas, follow Section 8 of Method 6C, except express all concentrations as percent, rather than ppm.

For O₂ analyzers that use a low-level calibration gas in place of a zero gas, calculate the effluent gas concentration using Equation 3A-1.

$$C_{\text{em}} = \frac{C_{\text{ms}} - C_{\text{os}}}{C_{\text{m}} - C_{\text{os}}} (C - C_{\text{m}}) + C_{\text{ms}}$$

Eq. 3A-1

where:

C_{em} = Effluent gas concentration, dry basis, percent.

C_{ms} = Actual concentration of the upscale calibration gas, percent.

C_{os} = Actual concentration of the low-level calibration gas, percent.

C_{m} = Average of initial and final system calibration bias check responses for the

upscale calibration gas, percent.
 C_{os} = Average of initial and final system calibration bias check responses for the low-level gas, percent.

C = Average gas concentration indicated by the gas analyzer, dry basis, percent.

10. Bibliography.

Same as bibliography of Method 6C.

METHOD 4—DETERMINATION OF MOISTURE CONTENT IN STACK GASES

1. Principle and Applicability

1.1 Principle. A gas sample is extracted at a constant rate from the source; moisture is removed from the sample stream and determined either volumetrically or gravimetrically.

1.2 Applicability. This method is applicable for determining the moisture content of stack gas.

Two procedures are given. The first is a reference method, for accurate determinations of moisture content (such as are needed to calculate emission data). The second is an approximation method, which provides estimates of percent moisture to aid in setting isokinetic sampling rates prior to a pollutant emission measurement run. The approximation method described herein is only a suggested approach; alternative means for approximating the moisture content, e.g., drying tubes, wet bulb-dry bulb techniques, condensation techniques, stoichiometric calculations, previous experience, etc., are also acceptable.

The reference method is often conducted simultaneously with a pollutant emission measurement run; when it is, calculation of percent isokinetic, pollutant emission rate, etc., for the run shall be based upon the results of the reference method or its equivalent;

these calculations shall not be based upon the results of the approximation method, unless the approximation method is shown, to the satisfaction of the Administrator, U.S. Environmental Protection Agency, to be capable of yielding results within 1 percent H₂O of the reference method.

NOTE: The reference method may yield questionable results when applied to saturated gas streams or to streams that contain water droplets. Therefore, when these conditions exist or are suspected, a second determination of the moisture content shall be made simultaneously with the reference method, as follows: Assume that the gas stream is saturated. Attach a temperature sensor [capable of measuring to $\pm 1^\circ \text{C}$ (2°F)] to the reference method probe. Measure the stack gas temperature at each traverse point (see Section 2.2.1) during the reference method traverse; calculate the average stack gas temperature. Next, determine the moisture percentage, either by: (1) using a psychrometric chart and making appropriate corrections if stack pressure is different from that of the chart, or (2) using saturation vapor pressure tables. In cases where the psychrometric chart or the saturation vapor pressure tables are not applicable (based on evaluation of the process), alternate methods, subject to the approval of the Administrator, shall be used.

2. Reference Method

The procedure described in Method 5 for determining moisture content is acceptable as a reference method.

2.1 Apparatus. A schematic of the sampling train used in this reference method is shown in Figure 4-1. All components shall be maintained and calibrated according to the procedure outlined in Method 5.

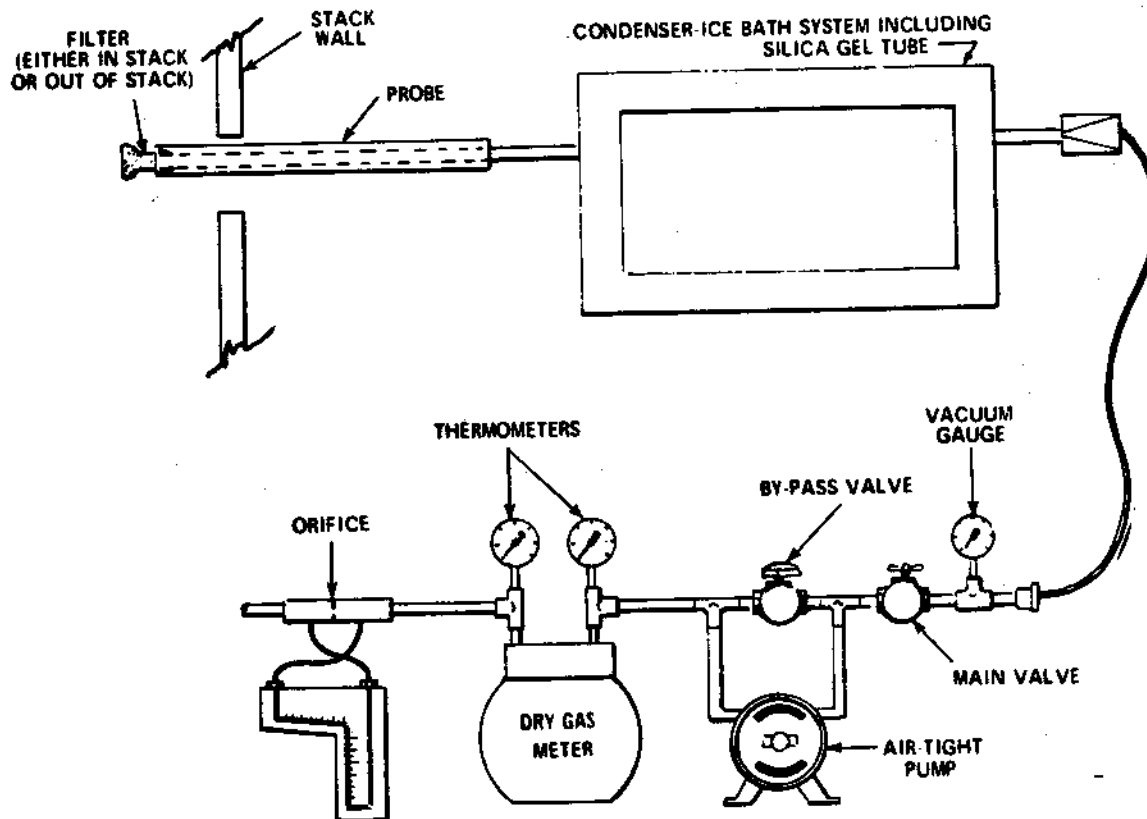


Figure 4-1. Moisture sampling train-reference method.

Environment Reporter

[Appendix A, Method 4]

108