RECLAMATION - BY-PRODUCT 7

Description of Activity:

Steam stripper condensate from the petroleum refining process, contaminated with phenol (a by-product exhibiting the characteristic of ignitability) goes through a solvent extraction process to recover the phenol, which is reused in petroleum refining to improve the viscosity of lube oils.

What is the status of the steam stripper condensate prior to solvent extraction?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[X] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because solvent extraction recovers materials of value -- phenol -- from the condensate, the process is defined as reclamation. Characteristic by-products that are reclaimed are not defined as solid wastes and thus are not subject to RCRA Subtitle C regulation unless they are speculatively accumulated, or the product of reclamation is used in a manner constituting disposal or burned as a fuel. Since these exceptions do not apply in this case, the steam stripper condensate is not a solid waste and thus is not subject to RCRA Subtitle C regulation.

RECLAMATION - BY-PRODUCT 8

Description of Activity:

A waste stream containing hexachlorobenzene and hexachlorobutadiene from the manufacture of chloromethanes (by-products exhibiting the characteristic of ignitability) is distilled. The distillate, which is also ignitable, is chlorinated in a nickel tube to produce carbon tetrachloride. The carbon tetrachloride is then marketed.

What is the status of the waste stream containing hexachlorobenzene and hexachlorobutadiene?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[X] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Distillation of the waste stream containing hexachlorobenzene and hexachlorobutadiene constitutes a reclamation step. Characteristic by-products that are reclaimed are not defined as solid wastes and are not subject to Subtitle C regulation unless they are speculatively accumulated, or the product of reclamation is used in a manner constituting disposal or burned as a fuel. Since these exceptions do not apply in this case, the initial waste stream is not a solid waste and thus is not subject to RCRA Subtitle C regulation.

See also: Other - Non-Secondary Material 10

RECLAMATION - BY-PRODUCT 9

Description of Activity:

Polyurethane residues (a by-product exhibiting the characteristic of ignitability) are distilled to recover methylene chloride for use in industrial applications.

What is the status of the polyurethane residues?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[X] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because material with value -- the methylene chloride -- is recovered, the distillation is classified as a reclamation step. Characteristic by-products that are reclaimed are not defined as solid wastes and are not subject to RCRA Subtitle C regulation unless they are speculatively accumulated or the product of reclamation is used in a manner constituting disposal or burned as a fuel. Since these exceptions do not apply to this case, the polyurethane residues are a solid waste and thus are not subject to RCRA Subtitle C regulation.

RECLAMATION - BY-PRODUCT 10

Description of Activity:

Solder drosses that are generated in soldering integrated circuits to printed circuit boards (a by-product exhibiting the characteristic of EP-toxicity) are sold to recyclers who recover lead in secondary smelters. The lead is sold to battery manufacturers for use in the production of lead-acid batteries.

What is the status of the solder drosses?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[X] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because material with value -- lead -- is recovered from the solder drosses, the process is classified as reclamation. Characteristic by-products that are reclaimed are not solid wastes and are not subject to RCRA Subtitle C regulation unless they are speculatively accumulated or the product of reclamation is used in a manner constituting disposal or burned as a fuel. Since these exceptions do not apply in this case, the solder drosses are not a solid waste and thus are not subject to RCRA Subtitle C regulation.

RECLAMATION - BY-PRODUCT 11

Description of Activity:

Acid digested coal ash (a by-product exhibiting the characteristic of EP-toxicity) goes through an adsorptive bubble technique, adding the sulfite ion and adjusting the solution pH, to recover metal cations of copper, cobalt, nickel, manganese, iron, lead, zinc, vanadium, aluminum, and chromium.

What is the status of the acid digested coal ash?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[X] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because materials with value -- the metal cations -- are recovered as end products from the acid digested coal ash, the activity is classified as reclamation. Characteristic by-products that are reclaimed are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, or the product of reclamation is used in a manner constituting disposal or burned as a fuel. Since these exceptions do not apply in this case, the acid digested coal ash is not a solid waste and thus is not subject to RCRA Subtitle C regulation.

RECLAMATION - SCRAP METAL 1

Description of Activity:

Non-magnetic automobile shredder rejects (scrap metals exhibiting the characteristic of EP-toxicity) go through a water elutriator system to recover nonferrous mixed metals (which also exhibit EP-toxicity), which are sent to a secondary smelter for reclamation.

What is the status of the automobile shredder rejects?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[X] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[X] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because materials with value -- the nonferrous mixed metals -- are recovered from the shredder rejects, the process is classified as reclamation. Characteristic scrap metals that are reclaimed are defined as solid wastes but are currently exempt from RCRA Subtitle C regulation (see 40 CFR 261.6(a)(3)(iv)).

See Also: Reclamation - Scrap Metal 3

RECLAMATION - SCRAP METAL 2

Description of Activity:

Scrap metal that exhibits the characteristic of EP-toxicity is smelted to recover lead. The lead is sold and used to manufacture batteries.

What is the status of the scrap metal?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[X] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[X] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because materials with value -- lead -- are recovered from the scrap metal, the process is classified as reclamation. Hazardous scrap metals that are reclaimed are solid wastes. However, EPA has exempted scrap metals from RCRA Subtitle C regulation.

RECLAMATION - SCRAP METAL 3

Description of Activity:

Non-magnetic automobile shredder rejects (scrap metals exhibiting the charactertistic of EP-toxicity) go through a water elutriator system to recover nonferrous mixed metals (which also exhibit EP-toxicity), which are sent to a secondary smelter for reclamation.

What is the status of the recovered mixed metals?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[X] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[X] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[X] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The mixed metals are products of the reclamation of a characteristic scrap metal. However, they are still scrap metals exhibiting the characteristic of EP-toxicity, and must undergo further reclamation at the secondary smelter. Characteristic scrap metals that are reclaimed are defined as solid wastes but are currently exempt from RCRA Subtitle C regulation.

USE/REUSE - SPENT MATERIAL 1

Description of Activity:

Spent pink/red water from the production of TNT (a sulfite-containing spent material listed under EPA Hazardous Waste No. K047) is used by the paper industry as a pulping liquor in a chemical-based pulping process.

What is the status of the pink/red water?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[X] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the pink/red water is used as a substitute for a commercial product in a manufacturing process, the activity is classified as use/reuse. Materials that are used/reused in this manner are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 2

Description of Activity:

Spent pickle liquor (a spent material listed under EPA Hazardous Waste No. K062) is used directly as a wastewater conditioner.

What is the status of the spent pickle liquor?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[X] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because dumping secondary materials into water to serve as fill or structural support is similar to land disposal, this activity normally is use constituting disposal; thus, materials added to water ordinarily are considered solid wastes. The use of secondary materials as wastewater conditioners, however, is not use constituting disposal. Using secondary materials as wastewater conditioners is not similar to land disposal because the secondary material is chemically combined as part of the conditioning process and is subsumed as an ingredient in the conditioned water. In this case, the pickle liquor is directly reused without any reclamation as a substitute for a commercial product. Materials that are used/reused are not considered solid wastes and thus are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 3

Description of Activity:

A spent electrolyte from the primary copper production process (a spent material that exhibits the characteristic of EP-toxicity) is returned without being reclaimed to the copper production process as a feedstock.

What is the status of the spent electrolyte?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the spent electrolyte is directly reintroduced without intermediate reclamation as a substitute for raw material feedstock in the primary production process from which it was generated, the activity is classified as use/reuse in a closed loop process. Materials that are used/reused are not solid wastes and are not subject to Subtitle C regulations, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 4

Description of Activity:

A spent Friedel Krafts catalyst solution from a chemical manufacturing plant (a spent material exhibiting the characteristic of corrosivity) is used as an ingredient in aluminum production processes.

What is the status of the spent catalyst?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

9a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The catalyst is directly used without intermediate reclamation as an ingredient in making aluminum. Materials that are used/reused are not solid wastes, and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 5

Description of Activity:

A spent olefin polymerization catalyst consisting of phosphoric acid impregnated Kieselguhr clay from petroleum fractionalization in the chemicals industry (a spent material exhibiting the characteristic of corrosivity) is supplied to a wet process phosphoric acid producer for use as a feedstock in the production of food-grade phosphoric acid.

What is the status of the spent catalyst?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The catalyst is directly used without intermediate reclamation as an ingredient in making food-grade phosphoric acid. Materials that are used/reused are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 6

Description of Activity:

A spent hydrofluoric acid etching solution from metallurgical industries (a spent material exhibiting the characteristic of corrosivity) is reacted with potassium hydroxide to produce an impure potassium fluoride solution, which goes through filtration and evaporation to purify the potassium fluoride, which is sold for use as a preservative.

What is the status of the etching solution?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The etching solution is directly reused without intermediate reclamation as an ingredient in making potassium fluoride. The activity is not classified as reclamation because potassium fluoride does not exist in the original substance and thus is not recovered from the substance. Materials that are used/reused are not solid wastes, and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 7

Description of Activity:

Spent sulfuric acid (a spent material exhibiting the characteristic of corrosivity) is used as a raw material in the manufacture of iron oxide products.

What is the status of the spent sulfuric acid?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The spent sulfuric acid is directly used as an ingredient in a manufacturing process. Hence, the activity qualifies as use/reuse. Materials that are used/reused are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SPENT MATERIAL 8

Description of Activity:

Waste hydrochloric acid from the production of chlorinated organic solvents such as methylene chloride (a spent material exhibiting the characteristic of corrosivity), is used as a pickle liquor in steel pickling.

What is the status of the waste hydrochloric acid?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[X] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the spent hydrochloric acid is used as a substitute for commercial product in steel pickling, the activity is classified use/reuse. Materials that are used/reused are not solid wastes a are not subject to RCRA Subtitle C regulation unless they a speculatively accumulated, used in a manner constituting disposal, burned as a fuel.

USE/REUSE - SLUDGE 1

Description of Activity:

A metal finishing sludge containing chromium hydroxide (a sludge listed under EPA Hazardous Waste No. F006) is treated with sulfuric acid, yielding chromium sulfate which is used in the leather tanning industry.

What is the status of the sludge?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The sludge is directly used without intermediate reclamation as an ingredient in making chromium sulfate. The activity is not classified as reclamation because chromium sulfate does not exist in the original substance and thus is not recovered from the substance. Materials that are used/reused are not solid wastes, and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SLUDGE 2

Description of Activity:

Emission control dust from a primary zinc smelting furnace (a sludge exhibiting the characteristic of EP-toxicity) is returned to the zinc production process without being reclaimed; the emission control dust is returned to either the smelting furnace in the pyrolitic plant or the dross furnace.

What is the status of the emission control dust?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the emission control dust is reintroduced, without prior reclamation, as a substitute for raw material feedstock in the primary production process from which it was generated, the activity is defined as a closed-loop process. Materials that are recycled in a closed-loop process are not solid wastes and thus are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, burned as a fuel, or used in a manner constituting disposal.

USE/REUSE - SLUDGE 3

Description of Activity:

Hydrofluorosilicic acid, an air emission control dust (a sludge that exhibits the characteristic of EP-toxicity), is used as a fluoridating agent in drinking water.

What is the status of the acid?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[X] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because dumping secondary materials into water to serve as fill or structural support is similar to land disposal, this activity normally is use constituting disposal; thus, materials added to water ordinarily are considered solid wastes. The use of secondary materials as fluoridating agents, however, is not use constituting disposal. Using secondary materials as fluoridating agents is not similar to land disposal because the secondary material is chemically combined as part of the fluoridating process and is subsumed as an ingredient in the fluoridated water. In this case, the hydrofluorosilicic acid is directly reused without any reclamation as a substitute for a commercial product. Materials that are used/reused are not considered solid wastes and thus are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SLUDGE 4

Description of Activity:

Emission control dust from the primary copper production process (a sludge that exhibits the characteristic of EP-toxicity) is returned without being reclaimed to the copper production process in the roaster, converter, or tank house as a feedstock.

What is the status of the emission control dust?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the emission control dust is directly reintroduced without intermediate reclamation as a substitute for raw material feedstock in the primary production process from which it was generated, the activity is classified as a closed loop process. Materials that are recycled in a closed-loop process are not solid wastes and thus are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SLUDGE 5

Description of Activity:

Bag filter and ventilation materials from the manufacture of pentachlorophenol (sludges listed under EPA Hazardous Waste No. F021) are reused as a substitute for virgin feedstock in the pentachlorophenol manufacturing process.

What is the status of the bag filter and ventilation materials?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Materials that are listed under EPA Hazardous Waste No. F021 are usually considered inherently waste-like, unless they are directly used/reused in a production process at the site of production, as they are here (see 40 CFR 261.2(d)(1)). In this case, the process is use/reuse and the bag filter and ventilation materials are not solid wastes and are not subject to RCRA Subtitle C regulation.

USE/REUSE - SLUDGE 6

Description of Activity:

Emission control dust from steel production (a sludge exhibiting the characteristic of EP toxicity) is returned to the sintering plant for processing before being charged to the blast furnace.

What is the status of the emission control dust?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Processing steps that do not themselves regenerate or recover material values and are not necessary to material recovery are not reclamation. Therefore, sintering operations, which thermally agglomerate iron-bearing materials before charging to a blast furnace, are not reclamation. In this case, return of emission control dusts to the blast furnace as a substitute for raw material feedstock meets the specifications of closed-loop recycling. Materials that are recycled in a closed-loop process are not solid wastes and are not subject to Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - SLUDGE 7

Description of Activity:

Blast furnace dusts (a sludge exhibiting the characteristic of EP-toxicity) are returned to the blast furnace (without intermediate reclamation) for reuse.

What is the status of the blast furnace dusts?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because the blast furnace dusts are reintroduced, without prio reclamation, as a substitute for raw material feedstock in the primar production process in which they were generated, the activity i use/reuse in a closed loop process. Materials that are used/reuse are not solid wastes and are not subject to RCRA Subtitle regulation, unless they are speculatively accumulated, used in manner constituting disposal, or burned as a fuel.

Description of Activity:

Baghouse dust from the production of steel (a sludge exhibiting the characteristic of EP-toxicity) is briquetted and then reintroduced to the blast furnace as a feedstock in the steel production process.

What is the status of the baghouse dust?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[X] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because it does not change the physical form of the baghouse dust, but merely collects the dust for easier reuse, briquetting is not a reclamation step. Thus, the baghouse dust is being reintroduced, without prior reclamation, as a substitute for a raw material feedstock in the primary production process in which it was generated. The activity is defined as use/reuse in a closed loop process. Materials that are used/reused are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - BY-PRODUCT 1

Description of Activity:

Lime generated in the production of acetylene gas (a by-product exhibiting the characteristic of corrosivity) is used as a wastewater conditioner.

What is the status of the lime?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[X] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Because dumping secondary materials into water to serve as fill or structural support is similar to land disposal, this activity normally is use constituting disposal; thus materials added to water ordinarily are considered solid wastes. The use of secondary materials as wastewater conditioners, however, is not use constituting disposal. Using secondary materials as wastewater conditioners is not similar to land disposal because the secondary material is chemically combined as part of the conditioning process and is subsumed as an ingredient in the conditioned water. In this case, the lime is directly reused without any intermediate reclamation as a substitute for a commercial product. Materials that are used/reused are not considered solid wastes and thus are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

USE/REUSE - BY-PRODUCT 2

Description of Activity:

Distillation bottoms from the manufacture of carbon tetrachloride (a by-product listed under EPA Hazardous Waste No. K016) are used as a feedstock in the production of tetrachloroethlyene.

What is the status of the distillation bottoms?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [X] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [X] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [X] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [X] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [X] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[X] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the process exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The distillation bottoms are directly used as an ingredient in a manufacturing process. Hence, the activity qualifies as use/reuse. Materials that are used/reused are not solid wastes and are not subject to RCRA Subtitle C regulation, unless they are speculatively accumulated, used in a manner constituting disposal, or burned as a fuel.

OTHER - SPENT MATERIAL 1

Description of Activity:

Spent oleum from the production of motor oil (a spent material that contains mostly sulfuric acid, and exhibits the characteristic of corrosivity) is sent off-site to produce virgin sulfuric acid that is reused in motor oil production.

What is the status of the spent oleum?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [X] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

EPA has specifically excluded spent sulfuric acid returned to produce virgin sulfuric acid from the definition of solid waste. Thus the spent acid is not subject to RCRA Subtitle C regulation, unless it is speculatively accumulated (see 40 CFR 261.4(a)(7)).

OTHER - SPENT MATERIAL 2

Description of Activity:

Spent pulping liquors (spent materials exhibiting the characteristic of corrosivity) from pulpmaking operations are recycled in a pulping liquor recovery furnace (on-site or off-site) and reused in the pulping process.

What is the status of the spent pulping liquors?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [X] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

EPA has excluded spent pulping liquors that are recycled in pulping liquor recovery furnace and reused in the pulping process fr the definition of solid waste, unless they are speculative accumulated (see 40 CFR 261.4(a)(6)).

OTHER - SPENT MATERIAL 3

Description of Activity:

Waste sulfuric acid (a spent material exhibiting the characteristic of corrosivity) is decomposed into sulfur dioxide, a gas that is piped to a sulfuric acid manufacturing operation for use as a raw material in the production of virgin sulfuric acid.

What is the status of the waste sulfuric acid?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [X] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The process of decomposing sulfuric acid to recover sulfur dioxide is considered reclamation of a characteristic spent material. Normally, characteristic spent materials that are reclaimed are solid wastes. However, EPA has issued a special exclusion stating that spent sulfuric acid used to produce virgin sulfuric acid is not a solid waste, and is not subject to RCRA Subtitle C regulation, unless it is speculatively accumulated (see 40 CFR 261.4(a)(7)).

OTHER - SPENT MATERIAL 4

Description of Activity:

Spent sulfuric acid (a spent material exhibiting the characteristic of corrosivity) is used with a commercial conditioning agent as a wastewater conditioner.

What is the status of the spent sulfuric acid?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [X] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [X] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [X] no

   If yes, the material is a solid waste. See applicable regulations, below.

   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [X] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a produc that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [X] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

2. The generator of the spent sulfuric acid is subject to requirements under 40 CFR 262. Transporters of the acid are subject to requirements under 40 CFR 263. Generators and other parties handling the acid may be subject to storage facility requirements under 40 CFR 264 and 265 subparts A through L. Generators who store the acid in tanks or containers for no more than 90 days are subject to requirements for accumulation under 40 CFR 262.34. Persons disposing of the waste may be subject to requirements under 40 CFR 264 and 265.

Discussion:

This is an example of sham recycling, where the spent sulfuric acid is only marginally effective for the claimed use. The fact that a commercial conditioning agent must be used along with the sulfuric acid is an indication that the claimed recycling is a sham. Thus, the spent sulfuric acid is a solid waste and is subject to RCRA Subtitle C regulation.

OTHER - NON-SECONDARY MATERIAL 1

Description of Activity:

Unused propulsion fuel from a torpedo that has been fired and retrieved must be reclaimed before reuse for its original purpose because it has been contaminated with salt water.

What is the status of the unused propulsion fuel?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The fuel is not a secondary material, but unreacted raw material (an unburned fuel). Because it is not a secondary material, it cannot be a solid waste, and is not subject to RCRA Subtitle C regulation.

OTHER - NON-SECONDARY MATERIAL 2

Description of Activity:

Column bottoms and heavy ends containing hexachlorobutadiene from the production of perchloroethlyene (a by-product that is listed under EPA Hazardous Waste No. K030) are stripped of volatile materials (which are recycled back into the perchloroethylene process). The residue is further distilled to recover marketable hexachlorobutadiene.

What is the status of the recovered hexachlorobutadiene?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The hexachlorobutadiene is the product of the reclamation of a listed by-product. Such products are not themselves solid wastes unless they (a) are burned as a fuel, (b) are placed on the land in a manner constituting disposal, or (c) require further processing to complete the reclamation process. In this case, the hexachlorobutadiene is reused without further reclamation. Thus, the hexachlorobutadiene is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - By-Product 2
Other - Non-Secondary Material 5

OTHER - NON-SECONDARY MATERIAL 3

Description of Activity:

Toluene originally used in press and roller cleanup in printing and coating operations is segregated by ink type and reused as a thinner at the same facility.

What is the status of the contaminated toluene?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The activity of segregating by ink type does not constitute reclamation, because the toluene is not regenerated. Because the material is used without being reclaimed, it is not a spent material, and thus not a secondary material. Materials that are not spent are not solid wastes and are not subject to RCRA Subtitle C regulation.

OTHER - NON-SECONDARY MATERIAL 4

Description of Activity:

Solvents (exhibiting the characteristic of ignitability) originally used to clean circuit boards but no longer pure enough for that purpose, are reused as is as metal degreasers.

What is the status of the contaminated solvents?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Solvents commonly are produced and used as degreasers. As long as the solvents (in this case) are used as degreasers, without being reclaimed, they are serving a purpose for which they originally were manufactured; since they are not "spent", they are not secondary materials. Materials that are not secondary materials are not solid wastes and thus are not subject to RCRA Subtitle C regulation.

See Also: Other - Non-Secondary Material 6

OTHER - NON-SECONDARY MATERIAL 5

Description of Activity:

Column bottoms and heavy ends containing hexachlorobutadiene from the production of perchloroethlyene (a by-product that is listed under EPA Hazardous Waste No. K030) are stripped of volatile materials (which are recycled back into the perchloroethylene process). The residue is distilled to recover marketable hexachlorobutadiene.

What is the status of the volatile materials?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The volatile materials are products of reclamation of a listed by-product. Such products are not themselves solid wastes unless they (a) are burned as a fuel, (b) are placed on the land in a manner constituting disposal, or (c) require further processing to complete the reclamation process. In this case, the volatile materials are reused in the perchloroethylene process without further reclamation. Thus, they are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Reclamation - By-Product 2
Other - Non-Secondary Material 2

OTHER - NON-SECONDARY MATERIAL 6

Description of Activity:

Spent acid from a brass mill (a spent material exhibiting the characteristic of corrosivity) is reclaimed for its copper content. The copper is then reused in the mill as an ingredient in the production of brass. The regenerated acid is returned to its original use.

What is the status of the copper?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The copper is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the copper is reused in the production of brass. Therefore it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 11

OTHER - NON-SECONDARY MATERIAL 7

Description of Activity:

An acid etching solution (a spent material exhibiting the characteristic of corrosivity) is reclaimed for its zinc content. The zinc, which does not exhibit any hazardous waste characteristics, is then used as an ingredient in paint manufacture.

What is the status of the zinc?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The zinc is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the zinc does not exhibit a hazardous waste characteristic and is directly used as an ingredient in paint. Therefore, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Use Constituting Disposal - Spent Material 1
Reclamation - Spent Material 13
Other - Non-Hazardous Secondary Material 3
Other - Non-Hazardous Secondary Material 4

OTHER - NON-SECONDARY MATERIAL 8

Description of Activity:

A spent cyanide plating bath solution from electroplating operations (a spent material listed under EPA Hazardous Waste No. F007) goes through an evaporation process to separate its liquid and solid constituents. The liquids are purified in activated carbon beds, yielding water, which is recycled to the rinsing operations. The solids are directly reused in the plating operation.

What is the status of the solids that are recycled to the plating operation?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

9m. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The solids are a product of the reclamation of a listed hazardous waste. Such products are not solid wastes themselves unless they (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the solids are reused in the plating operations. Therefore, they are not a solid waste and are not subject to Subtitle C regulation.

See Also: Reclamation - Spent Material 19
Reclamation - Spent Material 20

OTHER - NON-SECONDARY MATERIAL 9

Description of Activity:

Spent chromic acid from metal finishing plating baths (a spent material listed under EPA Hazardous Waste No. F007) is neutralized and goes through an ion exchange process that removes the chromium. The acid is regenerated and returned to the metal finishing plating bath. The ion exchange resin (a listed sludge -- the residue derived from the treatment of a listed waste) is treated with sodium hydroxide solution to remove any impurities. The resin is then returned to the ion exchange column.

What is the status of the regenerated acid that is returned to the metal finishing plating bath?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The acid is the product of the reclamation of a listed spent material. Such products are not themselves solid wastes unless they (a) are burned as a fuel, (b) are placed on the land in a manner constituting disposal, or (c) require further processing to complete the reclamation process. In this case, the acid is reused in metal plating without further reclamation. Thus, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 4
Reclamation - Sludge 3
Other - Non-Secondary Material 12

OTHER - NON-SECONDARY MATERIAL 10

Description of Activity:

A waste stream containing hexachlorobenzene and hexachlorobutadiene from the manufacture of chloromethanes (by-products exhibiting the characteristic of ignitability) is distilled. The distillate, which is also ignitable, is chlorinated in a nickel tube to produce carbon tetrachloride. The carbon tetrachloride is then marketed.

What is the status of the distillate?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The distillate is a product of the reclamation of a characteristic by-product. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal or (b) are burned as a fuel. In this case, the distillate is directly used as an ingredient in the production of carbon tetrachloride. Therefore, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - By-Product 8

OTHER - NON-SECONDARY MATERIAL 11

Description of Activity:

Used methyl ethyl ketone from coated fabric production (a material listed under EPA Hazardous Waste No. F005 when spent) is used to wash equipment in the synthetic rubber industry.

What is the status of the used methyl ethyl ketone?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

Solvents such as methyl ethyl ketone are commonly produced and used as cleaning agents. As long as the methyl ethyl ketone (in this case) is used as a cleaner/degreaser, it is serving a purpose for which it originally was manufactured; since it is not "spent", it is not a secondary material. Materials that are not secondary materials are not solid wastes and are not subject to RCRA Subtitle C regulation.

OTHER - NON-SECONDARY MATERIAL 12

Description of Activity:

Spent chromic acid from metal finishing plating baths (a spent material listed under EPA Hazardous Waste No. F007) is neutralized and goes through an ion exchange process that removes the chromium. The acid is regenerated and returned to the metal finishing plating bath. The ion exchange resin (a listed sludge -- the residue derived from a treatment of a listed waste) is regenerated with sodium hydroxide solution and then neutralized and treated, and returned to the ion exchange column.

What is the status of the resin that is returned to the ion exchange column?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The regenerated resin is the product of the reclamation of a listed sludge. Such products are not themselves solid wastes unless they (a) are burned as a fuel, (b) are placed on the land in a manner constituting disposal, or (c) require further processing to complete the reclamation process. In this case, the resin is reused in the ion exchange column without further reclamation. Thus, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 4
Reclamation - Sludge 3
Other Non-Secondary Material 9

OTHER - NON-SECONDARY MATERIAL 13

Description of Activity:

Amorphous polypropylene residues (by-products exhibiting the characteristic of ignitability) go through a processor that extracts residual solvents for reuse as degreasers. The polymeric residues, which do not exhibit any hazardous characteristics, are blended with asphaltic materials to make (a more crack-resistant) asphalt for sale. The asphalt also does not exhibit any hazardous waste characteristics.

What is the status of the extracted residual solvents?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling; and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The solvents are a product of the reclamation of a characteristic by-product that is a solid waste because another product of reclamation (the polymeric residues) is used in a manner constituting disposal. The solvents, however, are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) require further processing to complete the reclamation process. In this case, the solvents are reused as degreasers, so they are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Other - Non-Hazardous Secondary Material 6
Other - Non-Hazardous Secondary Material 7
Use Constituting Disposal - By-Product 4

OTHER - NON-SECONDARY MATERIAL 14

Description of Activity:

Plating bath rinsewaters from copper and zinc electroplating operations (spent materials exhibiting the characteristic of EP-toxicity) are concentrated in a reverse osmosis system and an evaporator. The distillate, which does not exhibit any hazardous waste characteristics, is recycled as process water. The concentrate, which exhibits the characteristic of EP-toxicity, is recycled to the plating baths.

What is the status of the concentrate?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The concentrate is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the concentrate is directly reused in the plating baths. Thus, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 23

OTHER - NON-SECONDARY MATERIAL 15

Description of Activity:

Spent methanol that was used as a solvent in pharmaceutical manufacturing operations (a spent material listed under EPA Hazardous Waste No. F003) goes through a reclamation process on site that regenerates the methanol to better than 99.5 percent purity. When sent off-site for reuse in a variety of manufacturing processes, it must undergo further reclamation.

What is the status of the 99.5 percent pure methanol?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The 99.5 percent pure methanol is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the methanol undergoes further reclamation off-site. However, because it is better than 99.5 percent pure, EPA has ruled that in this case the reclamation is substantially complete and the material is more product-like than waste-like. (A similar situation would be metals that must undergo further refining before they are used.) The methanol is a commercial chemical product, not a solid waste, and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 24

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 1

Description of Activity:

Spent activated carbon (a non-listed sludge that does not exhibit a hazardous waste characteristic) from the treatment of a characteristic waste is regenerated.

What is the status of the spent carbon?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

In this case, the spent activated carbon does not exhibit any hazardous waste characteristics. Secondary materials that are recycled but are not hazardous are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Sludge 1

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 2

Description of Activity:

Toxic metal-containing sludges from the chemical industry (sludges exhibiting the characteristic of EP-toxicity) go through a reclamation process that results in a soil-like solid that can be used for landfill cover material, levees, berms, or fertilizer. This resulting material does not exhibit any hazardous waste characteristics.

What is the status of the non-hazardous resulting material?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The products of reclamation of characteristic sludges are not themselves solid wastes unless they exhibit a hazardous waste characteristic and are (a) burned for energy recovery or (b) used in a manner constituting disposal. This product is placed on the land, but because the product is not hazardous it is not a solid waste and is not subject to Subtitle C regulation.

See Also: Use Constituting Disposal - Sludge 1

OTHER - NON-SECONDARY MATERIAL 13

Description of Activity:

Amorphous polypropylene residues (by-products exhibiting the characteristic of ignitability) go through a processor that extracts residual solvents for reuse as degreasers. The polymeric residues, which do not exhibit any hazardous characteristics, are blended with asphaltic materials to make (a more crack-resistant) asphalt for sale. The asphalt also does not exhibit any hazardous waste characteristics.

What is the status of the extracted residual solvents?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The solvents are a product of the reclamation of a characteristic by-product that is a solid waste because another product of reclamation (the polymeric residues) is used in a manner constituting disposal. The solvents, however, are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) require further processing to complete the reclamation process. In this case, the solvents are reused as degreasers, so they are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Other - Non-Hazardous Secondary Material 6
Other - Non-Hazardous Secondary Material 7
Use Constituting Disposal - By-Product 4

OTHER - NON-SECONDARY MATERIAL 14

Description of Activity:

Plating bath rinsewaters from copper and zinc electroplating operations (spent materials exhibiting the characteristic of EP-toxicity) are concentrated in a reverse osmosis system and an evaporator. The distillate, which does not exhibit any hazardous waste characteristics, is recycled as process water. The concentrate, which exhibits the characteristic of EP-toxicity, is recycled to the plating baths.

What is the status of the concentrate?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The concentrate is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the concentrate is directly reused in the plating baths. Thus, it is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 23

OTHER - NON-SECONDARY MATERIAL 15

Description of Activity:

Spent methanol that was used as a solvent in pharmaceutical manufacturing operations (a spent material listed under EPA Hazardous Waste No. F003) goes through a reclamation process on site that regenerates the methanol to better than 99.5 percent purity. When sent off-site for reuse in a variety of manufacturing processes, it must undergo further reclamation.

What is the status of the 99.5 percent pure methanol?

Questions:

1. Is the material that is recycled a secondary material?

   [ ] yes [X] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [ ] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The 99.5 percent pure methanol is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the methanol undergoes further reclamation off-site. However, because it is better than 99.5 percent pure, EPA has ruled that in this case the reclamation is substantially complete and the material is more product-like than waste-like. (A similar situation would be metals that must undergo further refining before they are used.) The methanol is a commercial chemical product, not a solid waste, and is not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 24

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 1

Description of Activity:

Spent activated carbon (a non-listed sludge that does not exhibit a hazardous waste characteristic) from the treatment of a characteristic waste is regenerated.

What is the status of the spent carbon?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

In this case, the spent activated carbon does not exhibit any hazardous waste characteristics. Secondary materials that are recycled but are not hazardous are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Sludge 1

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 2

Description of Activity:

Toxic metal-containing sludges from the chemical industry (sludges exhibiting the characteristic of EP-toxicity) go through a reclamation process that results in a soil-like solid that can be used for landfill cover material, levees, berms, or fertilizer. This resulting material does not exhibit any hazardous waste characteristics.

What is the status of the non-hazardous resulting material?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8A. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The products of reclamation of characteristic sludges are not themselves solid wastes unless they exhibit a hazardous waste characteristic and are (a) burned for energy recovery or (b) used in a manner constituting disposal. This product is placed on the land, but because the product is not hazardous it is not a solid waste and is not subject to Subtitle C regulation.

See Also: Use Constituting Disposal - Sludge 1

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 3

Description of Activity:

An acid etching solution (a spent material exhibiting the characteristic of corrosivity) is reclaimed for its zinc content. The zinc (which does not exhibit any hazardous waste characteristics) is then used in a fertilizer that does not exhibit any hazardous waste characteristics. The recycler uses the fertilizer on his own land but does not market it to the general public.

What is the status of the fertilizer?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The fertilizer is derived from a characteristic waste but is not itself hazardous because it does not exhibit any hazardous waste characteristics. Recycled secondary materials that are not hazardous are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Use Constituting Disposal - Spent Material 1
Reclamation - Spent Material 13
Other - Non-Secondary Material 7
Other - Non-Hazardous Secondary Material 4

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 4

Description of Activity:

An acid etching solution (a spent material exhibiting the characteristic of corrosivity) is reclaimed for its zinc content. The zinc (which does not exhibit any hazardous waste characteristics) is then used in a fertilizer that also does not exhibit any hazardous waste characteristics. The recycler uses the fertilizer on his own land but does not market it to the general public.

What is the status of the zinc?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, wich are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The zinc is a product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, because the zinc does not exhibit any hazardous characteristics, it is not a solid waste and is not subject to RCRA Subtitle C regulation (even though it is being used as an ingredient for a product that is placed on the land for beneficial use).

See Also: Use Constituting Disposal - Spent Materials 1
Reclamation - Spent Material 13
Other - Non-Secondary Material 7
Other - Non-Hazardous Secondary Material 3

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 5

Description of Activity:

Filter press sludge from the manufacture of organo-tin products (a non-listed sludge that does not exhibit any hazardous waste characteristics) is reclaimed for its tin content by secondary tin smelters.

What is the status of the sludge?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The filter press sludge is not listed and does not exhibit a hazardous waste characteristics; therefore it is not hazardous. Recycled secondary materials that are not hazardous are not solid wastes, and are not subject to RCRA Subtitle C regulation.

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 6

Description of Activity:

Amorphous polypropylene residues (by-products exhibiting the characteristic of ignitability) go through a processor that extracts residual solvents for reuse as degreasers. The polymeric residues, which do not exhibit any hazardous waste characteristics, are blended with asphaltic materials to make (a more crack-resistant) asphalt for sale. The asphalt also does not exhibit hazardous waste characteristics.

What is the status of the polymeric residues?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The polymeric residues are a product of the reclamation of characteristic by-product. Such products are not solid wastes unless they exhibit a hazardous characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) require further processing to complete the reclamation process. In this case, the polymeric residues are used in asphalt that is placed on the ground for beneficial use; however, these residues do not exhibit any hazardous characteristics. Thus, the residues are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Other - Non-Hazardous Secondary Material 7
Other - Non-Secondary Material 13
Use Constituting Disposal - By-Product 4

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 7

Description:

Amorphous polypropylene residues (by-products exhibiting the characteristic of ignitability) go through a processor that extracts residual solvents for reuse as degreasers. The polymeric residues, which do not exhibit any hazardous waste characteristics, are blended with asphaltic materials to make (a more crack-resistant) asphalt for sale. The asphalt also does not exhibit any hazardous waste characteristics.

What is the status of the asphalt?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

This asphalt is produced by blending asphaltic materials with the polymeric residues. Such products are not solid wastes unless they exhibit a hazardous characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) require further processing to complete the reclamation process. In this case, the asphalt is placed on the ground for beneficial use; however, the asphalt does not exhibit hazardous waste characteristics. Thus the asphalt is not a solid waste and is not subject to RCRA Subtitle C regulation.

See Also: Other - Non-Hazardous Secondary Material 6
Other - Non-Secondary Material 13
Use Constituting Disposal - By-Product 4

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 8

Description of Activity:

Waste etchants containing chromium and sulfuric acid from surface-finishing operations (a spent material exhibiting the characteristics of EP-toxicity and corrosivity), are treated with a substrate, producing trivalent chromium. The other metals (which do not exhibit any hazardous waste characteristics) are transferred to a catholyte and then sold to a secondary smelter for reclamation, leaving a regenerated etchant.

What is the status of the metals that are transferred to the catholyte?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations:

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The metals are the product of the reclamation of a characteristic spent material. Such products are not solid wastes themselves unless they exhibit a hazardous waste characteristic and (a) are placed on the ground in a manner constituting disposal, (b) are burned as a fuel, or (c) must be further reclaimed before they can be reused. In this case, the metals do not exhibit hazardous waste characteristics. Thus they are not solid wastes and are not subject to RCRA Subtitle C regulation.

See Also: Reclamation - Spent Material 25

OTHER - NON-HAZARDOUS SECONDARY MATERIAL 9

Description of Activity:

Spent platinum catalysts used in chemicals manufacturing (non-listed spent materials that do not exhibit any hazardous waste characteristics) are returned to the manufacturer, who regenerates them.

What is the status of the spent catalysts?

Questions:

1. Is the material that is recycled a secondary material?

   [X] yes [ ] no

   If yes, go on to question (2).
   If no, the material is not a solid waste.

2. Is the material hazardous? (A material is hazardous if it is listed under 40 CFR 261.30-.33 or exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and is not specifically excluded from the definition of hazardous waste under 40 CFR 261.4(b).)

   [ ] yes [X] no

   If yes, go on to question (3).
   If no, the material is not a solid waste.

3. Is the material specifically excluded from the definition of solid waste under 40 CFR 261.4(a) (see the list in Exhibit 5)?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, go on to question (4).

4. Is the material inherently waste-like (see the list in Exhibit 4)?

   [ ] yes [ ] no

   If yes, the material is a solid waste. See applicable regulations, below.
   If no, go on to question (5).

5. Does the activity serve a beneficial use?

   [ ] yes [ ] no

   If yes, go on to question (6).
   If no, the activity is not recycling, and the material is a solid waste. See applicable regulations, below.

6. Is there a feasible means for recycling the waste?

   [ ] yes [ ] no

   If yes, go on to question (6a).
   If no, go on to question (6b).

6a. Is at least 75 percent of the material recycled within one calendar year?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, go on to question (6b).

6b. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed as a hazardous waste in 40 CFR 261.33?

   [ ] yes [ ] no

   If yes, go on to question (7).
   If no, the practice is speculative accumulation, and the material is a solid waste. See applicable regulations, below.

7. Is the material placed on the ground or used in a product that is placed on the ground?

   [ ] yes [ ] no

   If yes, go on to question (7a).
   If no, go on to question (8).

7a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 that is produced for application to the land?

   [ ] yes [ ] no

   If yes, the material is not a solid waste.
   If no, the activity results in use constituting disposal and the material is a solid waste. See applicable regulations, below.

8. Is the material used as a fuel or used to produce a fuel?

   [ ] yes [ ] no

   If yes, go on to question (8a).
   If no, go on to question (9).

8a. Is the material a commercial chemical product that exhibits a hazardous waste characteristic or is listed in 40 CFR 261.33 and that is produced to be burned as fuel?

[ ] yes [ ] no

If yes, the material is not a solid waste.
If no, the activity results in burning for energy recovery, and the material is a solid waste. See applicable regulations, below.

9. Is the material used or reused

[ ] as an ingredient in an industrial process to make a new product without intermediate reclamation (regeneration or recovery of materials),

[ ] as an effective substitute for commercial products in a particular function or application, or

[ ] as a substitute for raw material feedstock in the primary production process from which it was generated, without being first reclaimed (a closed-loop process)?

If any of the above apply, the activity is use or reuse, and the material is not a solid waste.
If none of the above apply, go on to question (10).

10. Is the material regenerated or are materials with value recovered from the original material?

[ ] yes [ ] no

If yes, the activity is reclamation. Go on to question (10a).
If no, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

10a. Is the material

[ ] a hazardous waste listed under 40 CFR 261.31 or 261.32 (this provision excludes commercial chemical products, which are listed under 40 CFR 261.33),

[ ] a spent material exhibiting one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, or

[ ] a scrap metal?

If any of the above apply, the material is a solid waste. See applicable regulations, below.
If none of the above apply, go on to question (10b).

10b. Is the material

[ ] either a sludge or a by-product that exhibits one of the characteristics of a hazardous waste given in 40 CFR 261.20-.24, and that is not listed under 40 CFR 261.31-.32, or

[ ] a commercial chemical product that exhibits a hazardous waste characteristic or is listed under 40 CFR 261.33?

If any of the above apply, the material is not a solid waste.
If none of the above apply, please review the definitions of activities in this manual and reconsider your answers, or call the RCRA Hotline for assistance.

Applicable Regulations

1. Is the waste exempt from regulation (see the list in Exhibit 6)?

[ ] yes [ ] no

If yes, the material is not regulated.
If no, the material is regulated. See item (2), below.

Discussion:

The catalysts are not listed and do not exhibit any characteristics of hazardous wastes; therefore, they are not hazardous. Recycled secondary materials that are not hazardous are not solid wastes and are not subject to RCRA Subtitle C regulation.

This chapter presents an index to the examples in Chapter 2. Each example (cited by example number rather than by page number) is referenced by key words that describe the recycled material, the recycling process, the processes that generate and/or use the recycled material, or the industry of interest.

The user can consult this index to locate examples similar to the practice of interest, based on the key words provided.

Acetone
Reclamation - Spent Material 22

Acetylene Gas
Use/Reuse - By-Product 1

Acid Digested Coal Ash
Reclamation - By-Product 11

Acid Etching Solution
Other - Non-Secondary Material 7
Other - Non-Hazardous Secondary Material 3
Other - Non-Hazardous Secondary Material 4
Reclamation - Spent Material 13
Use Constituting Disposal - Spent Material 1

Acid, Spent
Reclamation - Spent Material 11

Activated Carbon Adsorption
(See Carbon adsorption)

Addition to Water
- Use/Reuse - By-Product 1
- Use/Reuse - Spent Material 2
- Use/Reuse - Sludge 3

Adhesive Thinner
- Reclamation - Spent Material 27

Adsorptive Bubble Technique
- Reclamation - By-Product 11

Air Emission Control Dust
- Use/Reuse - Sludge 3

Alcohol
- Reclamation - Spent Material 26

Alcohols, Heavy
- Energy Recovery - Spent Material 3
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1

Aluminum
- Reclamation - By-Product 11
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17

Aluminum Production
- Use/Reuse - Spent Material 4

Aluminum Sulfate
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17

Aluminum Trichloride
- Reclamation - Spent Material 8

Amorphous Polypropylene Residues
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 13
- Use Constituting Disposal - By-Product 4

Arsenic Compounds
- Reclamation - Spent Material 12

Asphalt
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 13
- Use Constituting Disposal - By-Product 4

Assembly of Chain Saws
- Reclamation - Spent Material 27

Assembly of String Trimmers
- Reclamation - Spent Material 27

Automobile Shredder Rejects
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 3

Bag Filter Materials
- Use/Reuse - Sludge 5

Baghouse Dust
- Reclamation - Sludge 7
- Use/Reuse - Sludge 8

Basic Organic Chemicals
- Energy Recovery - Spent Material 2

Battery Crackers
- Reclamation - Spent Material 1
- Reclamation - Spent Material 2

Battery Manufacturing
- Reclamation - By-Product 10
- Reclamation - Scrap Metal 2
- Reclamation - Spent Material 3

Benzyl Chloride
- Reclamation - By-Product 3

Berms
- Other - Non-Hazardous Secondary Material 2
- Use Constituting Disposal - Sludge 1

Blast Furnace
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2
- Use/Reuse - Sludge 6
- Use/Reuse - Sludge 7

Blending
- Other - Non-Secondary Material 13
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Use Constituting Disposal - By-Product 4

Brass
- Reclamation - Sludge 7

Brass Dross Skimmings
- Reclamation - By-Product 1
- Use Constituting Disposal - By-Product 1
- Use Constituting Disposal - By-Product 2
- Use Constituting Disposal - By-Product 3

Brass Mill
- Other - Non-Secondary Material 6
- Reclamation - Sludge 7
- Reclamation - Spent Material 11

Brass Production
- Other - Non-Secondary Material 6
- Reclamation - Sludge 7
- Reclamation - Spent Material 11

Bright Dipping
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17

Briquetting
- Use/Reuse - Sludge 8

By-Product
- (See Listed By-Product or Characteristic By-Product)

By-Product Recovery
- Reclamation - Sludge 8

Cadmium
- Reclamation - Sludge 8
- Use Constituting Disposal - Sludge 6

Carbon
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2

Carbon Adsorption
- Other - Non-Secondary Material 8
- Reclamation - Spent Material 5
- Reclamation - Spent Material 9
- Reclamation - Spent Material 18
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20

Carbon Tetrachloride
- Other - Non-Secondary Material 10
- Reclamation - By-Product 8
- Use/Reuse - By-Product 2

Catalysts
- Other - Non-Hazardous Secondary Material 9
- Reclamation - Spent Material 8
- Use/Reuse - Spent Material 4
- Use/Reuse - Spent Material 5

Catholyte
- Other - Non-Hazardous Secondary Material 8
- Reclamation - Spent Material 25

Chain Saw Assembly
- Reclamation - Spent Material 27

Characteristic By-Product
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 10
- Other - Non-Secondary Material 13
- Reclamation - By-Product 1
- Reclamation - By-Product 4
- Reclamation - By-Product 7
- Reclamation - By-Product 8

Characteristic By-Product, continued
- Reclamation - By-Product 9
- Reclamation - By-Product 10
- Reclamation - By-Product 11
- Use Constituting Disposal - By-Product 1
- Use Constituting Disposal - By-Product 2
- Use Constituting Disposal - By-Product 3
- Use Constituting Disposal - By-Product 4
- Use/Reuse - By-Product 1
- Use/Reuse - Sludge 7

Characteristic Scrap Metal
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 2
- Reclamation - Scrap Metal 3

Characteristic Sludge
- Other - Non-Hazardous Secondary Material 2
- Reclamation - Sludge 4
- Reclamation - Sludge 5
- Reclamation - Sludge 7
- Reclamation - Sludge 8
- Reclamation - Sludge 10
- Reclamation - Sludge 11
- Use Constituting Disposal - Sludge 1
- Use Constituting Disposal - Sludge 2
- Use Constituting Disposal - Sludge 3
- Use Constituting Disposal - Sludge 4
- Use Constituting Disposal - Sludge 5
- Use Constituting Disposal - Sludge 6
- Use/Reuse - Sludge 2
- Use/Reuse - Sludge 3
- Use/Reuse - Sludge 4
- Use/Reuse - Sludge 6
- Use/Reuse - Sludge 8

Characteristic Spent Material
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 1
- Energy Recovery - Spent Material 3
- Other - Non-Hazardous Secondary Material 3
- Other - Non-Hazardous Secondary Material 4
- Other - Non-Hazardous Secondary Material 8
- Other - Non-Secondary Material 6
- Other - Non-Secondary Material 7

Characteristic Spent Material (continued)
- Other - Non-Secondary Material 14
- Other - Spent Material 1
- Other - Spent Material 2
- Other - Spent Material 3
- Other - Spent Material 4
- Reclamation - Spent Material 1
- Reclamation - Spent Material 2
- Reclamation - Spent Material 3
- Reclamation - Spent Material 6
- Reclamation - Spent Material 8
- Reclamation - Spent Material 11
- Reclamation - Spent Material 13
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17
- Reclamation - Spent Material 23
- Reclamation - Spent Material 25
- Reclamation - Spent Material 26
- Use Constituting Disposal - Non-Hazardous Secondary Material 1
- Use Constituting Disposal - Spent Material 1
- Use Constituting Disposal - Spent Material 2
- Use/Reuse - Spent Material 3
- Use/Reuse - Spent Material 4
- Use/Reuse - Spent Material 5
- Use/Reuse - Spent Material 6
- Use/Reuse - Spent Material 7
- Use/Reuse - Spent Material 8

Chemical Manufacturing
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3
- Other - Non-Hazardous Secondary Material 2
- Other - Non-Hazardous Secondary Material 9
- Reclamation - Spent Material 8
- Reclamation - By-Product 3
- Reclamation - By-Product 4
- Use Constituting Disposal - Sludge 1
- Use/Reuse - Spent Material 4
- Use/Reuse - Spent Material 5

Chloralkali Sludges
- Reclamation - By-Product 6

Chloride
Reclamation - By-Product 3
Reclamation - By-Product 4

Chlorinated Organic Solvents
Use/Reuse - Spent Material 8

Chlorination
Other - Non-Secondary Material 10
Reclamation - By-Product 8

Chlorine
Reclamation - By-Product 3
Reclamation - By-Product 4

Chlorine Production
Reclamation - By-Product 5

Chloromethanes
Other - Non-Secondary Material 10
Reclamation - By-Product 8

Chlorinated Hydrocarbon Waste
Reclamation - By-Product 5

Chromic Acid
Other - Non-Secondary Material 9
Other - Non-Secondary Material 12
Reclamation - Sludge 3
Reclamation - Spent Material 4

Chromium
Other - Non-Hazardous Secondary Material 8
Other - Non-Secondary Material 9
Other - Non-Secondary Material 12
Reclamation - By-Product 11
Reclamation - Sludge 3
Reclamation - Spent Material 4
Reclamation - Spent Material 25

Chromium Hydroxide
Use/Reuse - Sludge 1

Chromium Sulfate
Use/Reuse - Sludge 1

Circuit Boards
- Other - Non-Secondary Material 4

Cleaning
- Other - Non-Secondary Material 11
- Reclamation - Spent Material 22

Closed Loop Process
- Use/Reuse - Sludge 2
- Use/Reuse - Spent Material 3
- Use/Reuse - Sludge 4
- Use/Reuse - Sludge 5
- Use/Reuse - Sludge 6
- Use/Reuse - Sludge 7
- Use/Reuse - Sludge 8

Coal
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2

Coal Ash
- Reclamation - By-Product 11

Coated Fabric Production
- Other - Non-Secondary Material 11

Cobalt
- Reclamation - By-Product 11

Coke
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2
- Energy Recovery - By-Product 4

Collection
- Use/Reuse - Sludge 8

Column Bottoms
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Reclamation - By-Product 2

Commercial Chemical Product
- Other - Non-Secondary Material 15
- Reclamation - Spent Material 24

Commercial Conditioning Agent
Other - Spent Material 4

Commercial Product Substitute
(See substitute for commercial product)

Computer Manufacturing
Reclamation - Sludge 9

Concentrate
Other - Non-Secondary Material 14
Reclamation - Spent Material 23

Concentration
Other - Non-Secondary Material 14
Reclamation - Spent Material 7
Reclamation - Spent Material 23

Condensate
Reclamation - By-Product 7

Condensation
Reclamation - By-Product 6
Reclamation - Spent Material 15
Reclamation - Spent Material 16
Reclamation - Spent Material 17

Continued Use of Material
Other - Non-Secondary Material 1
Other - Non-Secondary Material 3
Other - Non-Secondary Material 4

Converter
Use/Reuse - Sludge 4

Copper
Other - Non-Secondary Material 6
Other - Non-Secondary Material 14
Reclamation - By-Product 1
Reclamation - By-Product 11
Reclamation - By-Product 18
Reclamation - Sludge 9
Reclamation - Sludge 10
Reclamation - Spent Material 23
Use Constituting Disposal - Sludge 6
Use/Reuse - Spent Material 3

Copper Electroplating
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 23

Copper Production
- Use/Reuse - Spent Material 3
- Use/Reuse - Sludge 4

Cyanide Plating Bath
- Other - Non-Secondary Material 8
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20

Decanter Tank Tar Sludge
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2
- Energy Recovery - By-Product 4

Decanting
- Reclamation - Spent Material 5

Decolorization Operations
- Reclamation - Spent Material 12

Degreasing
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 13
- Reclamation - Spent Material 21
- Use Constituting Disposal - By-Product 4

Demisting
- Reclamation - By-Product 6

Dewatering
- Reclamation - By-Product 6
- Reclamation - Sludge 9

Diaphragm Cell Process
- Reclamation - By-Product 5

Diluents
- Reclamation - Spent Material 18

Distillate
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 23

Distillation
- Energy Recovery - Spent Material 1
- Other - Non-Secondary Material 10
- Reclamation - By-Product 3
- Reclamation - By-Product 4
- Reclamation - By-Product 7
- Reclamation - By-Product 8
- Reclamation - By-Product 11
- Reclamation - By-Product 16
- Reclamation - Sludge 4
- Reclamation - Spent Material 10
- Reclamation - Spent Material 21
- Reclamation - Spent Material 22
- Reclamation - Spent Material 26

Distillation Bottoms
- Use/Reuse - By-Product 2

Distillation Residue
- Energy Recovery - Spent Material 1

Dredging
- Energy Recovery - Non-Secondary Material 1

Dross Furnace
- Use/Reuse - Sludge 2

Dross Skimmings
- Reclamation - By-Product 1
- Use Constituting Disposal - By-Product 1
- Use Constituting Disposal - By-Product 2
- Use Constituting Disposal - By-Product 3

Dusts, Blast Furnace
- Use/Reuse - Sludge 7

Electrolytes
- Reclamation - Spent Material 3

Electrolytic Stripping
- Reclamation - Sludge 11

Electronics Manufacturing
- Reclamation - Sludge 9

Electroplating
- Other - Non-Secondary Material 8
- Other - Non-Secondary Material 14
- Reclamation - Sludge 8
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20
- Reclamation - Spent Material 23

Electroplating Sludge
- Reclamation - Sludge 9

Electrostatic Precipitator Ash
- Reclamation - Sludge 11

Emission Control Dust
- Reclamation - Sludge 5
- Reclamation - Sludge 8
- Use/Reuse - Sludge 2
- Use/Reuse - Sludge 4
- Use/Reuse - Sludge 6

Equipment Washing
- Other - Non-Secondary Material 11

Etchants
- Other - Non-Hazardous Secondary Material 8
- Reclamation - Spent Material 25

Etching Solution
- Use/Reuse - Spent Material 6

Ethyl Alcohol
- Energy Recovery - Spent Material 1
- Reclamation - Spent Material 6

Evaporation
- Other - Non-Secondary Material 8
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 7
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17
- Reclamation - Spent Material 19

Evaporation, continued
- Reclamation - Spent Material 20
- Reclamation - Spent Material 23
- Use/Reuse - Spent Material 6

Excluded
- Other - Spent Material 1
- Other - Spent Material 2
- Other - Spent Material 3

Exempt
- Energy Recovery - By-Product 2
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 2
- Reclamation - Scrap Metal 3
- Reclamation - Sludge 2
- Reclamation - Spent Material 1
- Reclamation - Spent Material 3
- Reclamation - Spent Material 6
- Use Constituting Disposal - Sludge 4

Explosives
- Reclamation - Sludge 6

F001 Waste
- Reclamation - Spent Material 5

F001-F005 Wastes
- Reclamation - Spent Material 9
- Reclamation - Spent Material 21

F002 Waste
- Reclamation - Spent Material 10

F003 Waste
- Reclamation - Spent Material 22

F005 Waste
- Other - Non-Secondary Material 11
- Reclamation - Spent Material 27

F006 Waste
- Reclamation - Sludge 2
- Reclamation - Sludge 9
- Use/Reuse - Sludge 1

F007 Waste
- Other - Non-Secondary Material 8
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Reclamation - Spent Material 4
- Reclamation - Sludge 3
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20

F021 Waste
- Use/Reuse - Sludge 5

Ferric Chloride
- Reclamation - Spent Material 7

Ferrous Chloride
- Reclamation - Spent Material 7

Fertilizer
- Other - Non-Hazardous Secondary Material 2
- Other - Non-Hazardous Secondary Material 3
- Other - Non-Hazardous Secondary Material 4
- Reclamation - By-Product 1
- Use Constituting Disposal - By-Product 1
- Use Constituting Disposal - By-Product 2
- Use Constituting Disposal - By-Product 3
- Use Constituting Disposal - Non-Hazardous Secondary Material 1
- Use Constituting Disposal - Sludge 1
- Use Constituting Disposal - Sludge 2
- Use Constituting Disposal - Sludge 3
- Use Constituting Disposal - Sludge 4
- Use Constituting Disposal - Sludge 5
- Use Constituting Disposal - Sludge 6
- Use Constituting Disposal - Spent Material 1
- Use Constituting Disposal - Spent Material 2

Filter Press Sludge
- Other - Non-Hazardous Secondary Material 5

Filtration
- Use/Reuse - Spent Material 6

Flue Dusts
Reclamation - Sludge 10
Use Constituting Disposal - Sludge 2
Use Constituting Disposal - Sludge 3
Use Constituting Disposal - Sludge 4
Use Constituting Disposal - Sludge 5

Flue Gas
Reclamation - Sludge 11

Fluoridating Agent
Use/Reuse - Sludge 3

Food-Grade Phosphoric Acid
Use/Reuse - Spent Material 5

Friedel Krafts Catalyst
Use/Reuse - Spent Material 4

Fuel
Energy Recovery - By-Product 4

Further Reclamation
Other - Non-Secondary Material 15
Reclamation - Spent Material 24

Galvanized Metals
Reclamation - Sludge 10
Reclamation - Sludge 11

Gold
Reclamation - Sludge 2

Graphic Arts Industry
Reclamation - Spent Material 18

Graphite Anodes
Reclamation - By-Product 5

Greases
Reclamation - Spent Material 21

Halogenated Solvents
Reclamation - Spent Material 10

Heavy Alcohols
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3

Heavy Ends
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Reclamation - By-Product 2

Heavy Metals
- Use Constituting Disposal - Sludge 6

Heavy Residuals
- Energy Recovery - By-Product 3
- Energy Recovery - Spent Material 3

Herbicides
- Reclamation - Sludge 4

Hexachlorobenzene
- Other - Non-Secondary Material 10
- Reclamation - By-Product 8

Hexachlorobutadiene
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Other - Non-Secondary Material 10
- Reclamation - By-Product 2
- Reclamation - By-Product 8

Hydrocarbon Waste
- Reclamation - By-Product 5

Hydrocarbons
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3

Hydrochloric Acid
- Reclamation - By-Product 3
- Reclamation - By-Product 4
- Use/Reuse - Spent Material 8

Hydrofluoric Acid
- Use/Reuse - Spent Material 6

Hydrofluorosilicic Acid
Use/Reuse - Sludge 3

Incinerator
Reclamation - Sludge 11

Industrial Boiler
Energy Recovery - Spent Material 2

Industrial Ethyl Alcohol
Energy Recovery - Spent Material 1
Reclamation - Spent Material 6

Ingredient
Use/Reuse - By-Product 2
Use/Reuse - Sludge 1
Use/Reuse - Spent Material 6
Use/Reuse - Spent Material 7

Inherently Waste-Like
Use/Reuse - Sludge 5

Inks
Reclamation - Spent Material 18

Integrated Circuits
Reclamation - By-Product 10

Ion Exchange
Other - Non-Secondary Material 9
Other - Non-Secondary Material 12
Reclamation - Sludge 3
Reclamation - Sludge 4
Reclamation - Spent Material 4
Reclamation - Spent Material 15
Reclamation - Spent Material 16
Reclamation - Spent Material 17

Iridium
Reclamation - Sludge 2

Iron
Reclamation - By-Product 11

Iron Oxide
Use/Reuse - Spent Material 7

Isopropyl Alcohol
Reclamation - Spent Material 26

K014 Waste
Reclamation - By-Product 3

K016 Waste
Use/Reuse - By-Product 2

K030 Waste
Other - Non-Secondary Material 2
Other - Non-Secondary Material 5
Reclamation - By-Product 2

K045 Waste
Reclamation - Sludge 6

K047 Waste
Use/Reuse - Spent Material 1

K061 Waste
Use/Reuse - Sludge 6
Use/Reuse - Sludge 8

K062 Waste
Other - Non-Secondary Material 6
Reclamation - Spent Material 7
Reclamation - Spent Material 11
Reclamation - Spent Material 14
Use/Reuse - Spent Material 2

K071 Waste
Reclamation - By-Product 6

K073 Waste
Reclamation - By-Product 5

K086 Waste
Reclamation - Spent Material 18

K087 Waste
Energy Recovery - By-Product 1
Energy Recovery - By-Product 2
Energy Recovery - By-Product 4

K102 Waste
Reclamation - Spent Material 12

Ketones
Energy Recovery - By-Product 3
Energy Recovery - Mixed Material 1
Energy Recovery - Spent Material 3

Kieselguhr Clay
Use/Reuse - Spent Material 5

Landfill Cover Material
Other - Non-Hazardous Secondary Material 2
Use Constituting Disposal - Sludge 1

Lanolin
Reclamation - Spent Material 21

Lead
Reclamation - By-Product 5
Reclamation - By-Product 10
Reclamation - By-Product 11
Reclamation - Spent Material 1
Reclamation - Spent Material 2
Use Constituting Disposal - Sludge 6

Lead Acid-Batteries
Reclamation - By-Product 10

Leather Tanning
Use/Reuse - Sludge 1

Levees
Other - Non-Hazardous Secondary Material 2
Use Constituting Disposal - Sludge 1

Lime
Use/Reuse - By Product 1

Liquid-Liquid Extraction
- Reclamation - Spent Material 14

Listed
- (See numerical listing, e.g., K062)

Listed By-Product
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2
- Energy Recovery - By-Product 4
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Reclamation - By-Product 2
- Reclamation - By-Product 3
- Reclamation - By-Product 5
- Reclamation - By-Product 6
- Use/Reuse - By-Product 2

Listed Sludge
- Other - Non-Secondary Material 12
- Reclamation - Sludge 1
- Reclamation - Sludge 2
- Reclamation - Sludge 3
- Reclamation - Sludge 6
- Reclamation - Sludge 9
- Reclamation - Spent Material 4
- Use/Reuse - Sludge 1
- Use/Reuse - Sludge 5

Listed Spent Material
- Other - Non-Secondary Material 8
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 11
- Other - Non-Secondary Material 12
- Other - Non-Secondary Material 15
- Reclamation - Sludge 3
- Reclamation - Spent Material 4
- Reclamation - Spent Material 5
- Reclamation - Spent Material 7
- Reclamation - Spent Material 9
- Reclamation - Spent Material 10
- Reclamation - Spent Material 11
- Reclamation - Spent Material 12
- Reclamation - Spent Material 14
- Reclamation - Spent Material 18

Listed Spent Material, continued
Reclamation - Spent Material 19
Reclamation - Spent Material 20
Reclamation - Spent Material 21
Reclamation - Spent Material 22
Reclamation - Spent Material 24
Reclamation - Spent Material 27
Use/Reuse - Spent Material 1
Use/Reuse - Spent Material 2

Magnesium Casting
Reclamation - Spent Material 27

Manganese
Reclamation - By-Product 11

Marine Fuel
Energy Recovery - By-Product 3
Energy Recovery - Mixed Material 1
Energy Recovery - Spent Material 3

Mercury
Reclamation - By-Product 6

Metal Cations
Reclamation - By-Product 11

Metal degreasers
Other - Non-Secondary Material 4

Metal Finishing
Other - Non-Secondary Material 9
Other - Non-Secondary Material 12
Reclamation - Sludge 2
Reclamation - Sludge 3
Reclamation - Sludge 8
Reclamation - Spent Material 4
Use Constituting Disposal - Non-Hazardous Secondary Material 1
Use Constituting Disposal - Spent Material 2
Use/Reuse - Sludge 1

Metal Refining
Use Constituting Disposal - Sludge 2
Use Constituting Disposal - Sludge 3
Use Constituting Disposal - Sludge 4
Use Constituting Disposal - Sludge 5

Metallurgical Industries
Use/Reuse - Spent MAterial 6

Metals
Other - Non-Hazardous Secondary Material 8
Reclamation - By-Product 1
Reclamation - Spent Material 25
Use Constituting Disposal - Sludge 1

Metals, Galvanized
Reclamation - Sludge 10
Reclamation - Sludge 11

Metals, Heavy
Use Constituting Disposal - Sludge 6

Metals, Non-Ferrous Mixed
Reclamation - Scrap Metal 1
Reclamation - Scrap Metal 3

Metals, Unspecified
Other - Non-Hazardous Secondary Material 2
Reclamation - Sludge 9

Methanol
Other - Non-Secondary Material 15
Reclamation - Sludge 4
Reclamation - Spent Material 24

Methyl Ethyl Ketone
Other - Non-Secondary Material 17
Reclamation - Spent Material 27

Methylene Chloride
Reclamation - By-Product 9
Reclamation - Spent Material 10
Use/Reuse - Spent Material 8

Mixed Metals
Reclamation - Scrap Metal 1
Reclamation - Scrap Metal 3

Mixing
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3

Motor Oil Production
- Other - Spent Material 1

Municipal Incinerator
- Reclamation - Sludge 11

Municipal Wastewater Treatment Sludge
- Use Constituting Disposal - Sludge 6

Natural Gas Transmission
- Energy Recovery - Non-Secondary Material 1

Neutralization
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Reclamation - Sludge 3
- Reclamation - Spent Material 4
- Reclamation - Spent Material 7

Nickel
- Reclamation - By-Product 11
- Use Constituting Disposal - Sludge 6

Nickel Tube
- Other - Non-Secondary Material 10
- Reclamation - By-Product 8

Nitric Acid
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17

Non-Beneficial Use
- Other - Spent Material 4

Non-Magnetic Shredder Rejects
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 3

Non-Ferrous Mixed Metals
Reclamation - Scrap Metal 1
Reclamation - Scrap Metal 3

Oils
Reclamation - Spent Material 26

Olefin Polymerization Catalyst
Use/Reuse - Spent Material 5

Oleum
Other - Spent Material 1

Organic Chemicals Manufacturing
Energy Recovery - Spent Material 2

Organic Intermediates
Energy Recovery - Spent Material 2

Organic Solvents
Use/Reuse - Spent Material 8

Organo-Arsenic Compounds
Reclamation - Spent Material 12

Organo-Tin Manufacturing
Other - Non-Hazardous Secondary Material 5

Osmium
Reclamation - Sludge 2

Oxides
Reclamation - By-Product 1
Reclamation - Spent Material 1
Reclamation - Spent Material 2
Use Constituting Disposal - By-Product 1
Use Constituting Disposal - By-Product 2
Use Constituting Disposal - By-Product 3

Paint Manufacture
Other - Non-Secondary Material 7
Reclamation - Spent Material 13

Palladium
Reclamation - Sludge 2

Paper Industry
- Use/Reuse - Spent Material 1

Pentachlorphenol
- Use/Reuse - Sludge 5

Perchloroethylene
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Reclamation - By-Product 2

Perfumes
- Reclamation - Spent Material 26

Petroleum Fractionalization
- Use/Reuse - Spent Material 5

Petroleum Refining
- Reclamation - By-Product 7

pH Adjustment
- Reclamation - By-Product 11

Pharmaceutical Manufacturing
- Other - Non-Secondary Material 15
- Reclamation - Spent Material 24

Phenol
- Reclamation - By-Product 7

Phenoxy Herbicides
- Reclamation - Sludge 4

Phosphoric Acid
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17
- Use/Reuse - Spent Material 5

Pickle Liquor
- Other - Non-Secondary Material 6
- Reclamation - Spent Material 7
- Reclamation - Spent Material 14
- Use/Reuse - Spent Material 2
- Use/Reuse - Spent Material 8

Pickling
- Reclamation - Spent Material 14
- Use/Reuse - Spent Material 8

Pink/Red Water
- Use/Reuse - Spent Material 1

Pipeline Condensate
- Energy Recovery - Non-Secondary Material 1

Plasticizers
- Energy Recovery - Spent Material 2

Plating Bath
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Other - Non-Secondary Material 14
- Reclamation - Sludge 3
- Reclamation - Spent Material 4
- Reclamation - Spent Material 23

Plating Bath Rinsewaters
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 23

Platinum
- Reclamation - Sludge 2

Platinum Catalysts
- Other - Non-Hazardous Secondary Material 9

Pollution Control
- Reclamation - Sludge 4

Polymeric Residues
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 13
- Use Constituting Disposal - By-Product 4

Polypropylene
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 13
- Use Constituting Disposal - By-Product 4

Polyurethane Waste
Reclamation - By-Product 9

Potassium Fluoride
Use/Reuse - Spent Material 6

Potassium Hydroxide
Use/Reuse - Spent Material 6

Precious Metals
Reclamation - Sludge 2

Preservative
Use/Reuse - Spent Material 6

Press and Roller Cleanup
Other - Non-Secondary Material 3

Primary Smelting
Reclamation - Sludge 5
Reclamation - Sludge 8
Use/Reuse - Sludge 2

Printed Circuit Boards
Reclamation - By-Product 10
Reclamation - Spent Material 9

Printing and Coating Operations
Other - Non-Secondary Material 3

Printing and Publishing Industry
Reclamation - Spent Material 18

Process Water
Other - Non-Secondary Material 14
Reclamation - Spent Material 23

Processor
Other - Non-Hazardous Secondary Material 6
Other - Non-Hazardous Secondary Material 7
Other - Non-Secondary Material 13
Use Constituting Disposal - By-Product 4

Product of Reclamation
- Energy Recovery - Spent Material 1
- Other - Non-Hazardous Secondary Material 2
- Other - Non-Hazardous Secondary Material 3
- Other - Non-Hazardous Secondary Material 4
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Hazardous Secondary Material 8
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Other - Non-Secondary Material 7
- Other - Non-Secondary Material 8
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 10
- Other - Non-Secondary Material 12
- Other - Non-Secondary Material 13
- Other - Non-Secondary Material 14
- Other - Non-Secondary Material 15
- Reclamation - Scrap Metal 3
- Reclamation - Spent Material 2
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17
- Reclamation - Spent Material 20

Pulping Liquor
- Use/Reuse - Spent Material 1
- Other - Spent Material 2

Purification
- Reclamation - By-Product 5
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20
- Use/Reuse - Spent Material 6

Pyrolitic Plant
- Use/Reuse - Sludge 2

Quick Drying
- Reclamation - Spent Material 27

Refuse Incineration
- Reclamation - Sludge 11

Regeneration
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Other - Non-Secondary Material 15
- Other - Non-Hazardous Secondary Material 8
- Other - Non-Hazardous Secondary Material 9
- Reclamation - Sludge 1
- Reclamation - Sludge 3
- Reclamation - Sludge 4
- Reclamation - Sludge 6
- Reclamation - Spent Material 3
- Reclamation - Spent Material 4
- Reclamation - Spent Material 5
- Reclamation - Spent Material 6
- Reclamation - Spent Material 9
- Reclamation - Spent Material 10
- Reclamation - Spent Material 11
- Reclamation - Spent Material 12
- Reclamation - Spent Material 14
- Reclamation - Spent Material 18
- Reclamation - Spent Material 21
- Reclamation - Spent Material 22
- Reclamation - Spent Material 24
- Reclamation - Spent Material 25
- Reclamation - Spent Material 26

Residuals, Heavy
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 3

Residue from Reclamation
- Energy Recovery - Spent Material 1

Resin
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Reclamation - Sludge 3
- Reclamation - Sludge 4
- Reclamation - Spent Material 4
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17

Reverse Osmosis System
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 23

Rhodium
- Reclamation - Sludge 2

Rinsewaters
- Other - Non-Secondary Material 14
- Reclamation - Spent Material 23

Rinsing Operations
- Other - Non-Secondary Material 8
- Reclamation - Spent Material 19
- Reclamation - Spent Material 20

Roasting
- Reclamation - By-Product 6
- Use/Reuse - Sludge 4

Ruthenium
- Reclamation - Sludge 2

Scouring Operations
- Reclamation - Spent Material 21

Scrap Metal
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 2
- Reclamation - Scrap Metal 3

Secondary Smelting
- Other - Non-Hazardous Secondary Material 5
- Other - Non-Hazardous Secondary Material 8
- Reclamation - By-Product 1
- Reclamation - By-Product 5
- Reclamation - By-Product 10
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 2
- Reclamation - Scrap Metal 3
- Reclamation - Sludge 7
- Reclamation - Sludge 8
- Reclamation - Sludge 10
- Reclamation - Spent Material 1
- Reclamation - Spent Material 2

Secondary Smelting, continued
Reclamation - Spent Material 25
Use Constituting Disposal - By-Product 1
Use Constituting Disposal - By-Product 2
Use Constituting Disposal - By-Product 3

Segregation
Other - Non-Secondary Material 3

Separation
Reclamation - By-Product 1

Sham Recycling
Other - Spent Material 4

Shredder Rejects
Reclamation - Scrap Metal 1
Reclamation - Scrap Metal 3

Silver
Reclamation - Sludge 2

Sintering Plant
Use/Reuse - Sludge 6

Sludge
(See Listed Sludge or Characteristic Sludge)

Smelting
(See Primary Smelting or Secondary Smelting)

Sodium Hydroxide
Other - Non-Secondary Material 9
Other - Non-Secondary Material 12
Reclamation - Sludge 3
Reclamation - Spent Material 4

Solder Drosses
Reclamation - By-Product 10

Solvents
- Energy Recovery - By-Product 3
- Energy Recovery - Mixed Material 1
- Energy Recovery - Spent Material 2
- Energy Recovery - Spent Material 3
- Other - Non-Hazardous Secondary Material 6
- Other - Non-Hazardous Secondary Material 7
- Other - Non-Secondary Material 4
- Other - Non-Secondary Material 13
- Reclamation - Spent Material 5
- Reclamation - Spent Material 9
- Reclamation - Spent Material 10
- Reclamation - Spent Material 18
- Reclamation - Spent Material 21
- Use Constituting Disposal - By-Product 4
- Use/Reuse - Spent Material 8

Solvent Extraction
- Reclamation - By-Product 7

Spent Activated Carbon
- Reclamation - Sludge 1

Spent Carbon
- Other - Non-Hazardous Secondary Material 1
- Reclamation - Sludge 6
- Reclamation - Spent Material 12

Spent Electrolyte
- Use/Reuse - Spent Material 3

Spent Lead-Acid Batteries
- Reclamation - Spent Material 1
- Reclamation - Spent Material 2
- Use Constituting Disposal - Non-Hazardous Secondary Material 1
- Use Constituting Disposal - Spent Material 2

Spent Material
- (See Listed Spent Material or Characteristic Spent Material)

Steam Stripper Condensate
- Reclamation - By-Product 7

Steel
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2
- Reclamation - Spent Material 14
- Use/Reuse - Sludge 6

Steel Pickling
- Use/Reuse - Spent Material 8

Steel Production
- Use/Reuse - Sludge 8

Still Bottoms
- Reclamation - By-Product 3
- Reclamation - By-Product 4

String Trimmer Assembly
- Reclamation - Spent Material 27

Substantially Complete Reclamation
- Other - Non-Secondary Material 15
- Reclamation - Spent Material 24

Substitute for Commercial Product
- Use/Reuse - By-Product 1
- Use/Reuse - Sludge 3
- Use/Reuse - Sludge 8
- Use/Reuse - Spent Material 1
- Use/Reuse - Spent Material 2
- Use/Reuse - Spent Material 8

Substitute for Raw Material
- Energy Recovery - By-Product 1
- Energy Recovery - By-Product 2

Substrate
- Other - Non-Hazardous Secondary Material 8
- Reclamation - Spent Material 25

Sulfite
- Reclamation - By-Product 11
- Use/Reuse - Spent Material 1

Sulfur Dioxide
- Other - Spent Material 3

Sulfuric Acid
- Other - Non-Hazardous Secondary Material 8
- Other - Spent Material 1
- Other - Spent Material 3
- Other - Spent Material 4
- Reclamation - Spent Material 15
- Reclamation - Spent Material 16
- Reclamation - Spent Material 17
- Reclamation - Spent Material 25
- Use Constituting Disposal - Non-Hazardous Secondary Material 1
- Use Constituting Disposal - Spent Material 2
- Use/Reuse - Sludge 1
- Use/Reuse - Spent Material 7

Surface Finishing
- Other - Non-Hazardous Secondary Material 8
- Reclamation - Spent Material 25

Synthetic Rubber
- Other - Non-Secondary Material 11

TNT Production
- Use/Reuse - Spent Material 1

Tank House
- Use/Reuse - Sludge 4

Tetrachloroethylene
- Use/Reuse - By-Product 2

Thinner
- Other - Non-Secondary Material 3

Thinner, Adhesive
- Reclamation - Spent Material 27

Tin
- Other - Non-Secondary Material 18

Toluene
- Other - Non-Secondary Material 3
- Reclamation - Spent Material 5

Torpedo
- Other - Non-Secondary Material 1

Treatment
- Other - Non-Secondary Material 9
- Other - Non-Secondary Material 12
- Reclamation - Sludge 3
- Reclamation - Spent Material 4

Trivalent Chromium
- Other - Non-Hazardous Secondary Material 8
- Reclamation - Spent Material 25

Unreacted Raw Material
- Other - Non-Secondary Material 1

Unused Propulsion Fuel
- Other - Non-Secondary Material 1

Used Batteries
- Reclamation - Spent Material 3

Vanadium
- Reclamation - By-Product 11
- Reclamation - Spent Material 8

Vanadium Trichloride
- Reclamation - Spent Material 8

Veterinary Pharmaceuticals
- Reclamation - Spent Material 12

Volatile Materials
- Other - Non-Secondary Material 2
- Other - Non-Secondary Material 5
- Reclamation - By-Product 2

Washing
- Other - Non-Secondary Material 11

Waste-Derived Fuel
- Energy Recovery - Mixed Material 1

Wastewater
- Reclamation - Sludge 6

Wastewater Conditioner
- Other - Spent Material 4
- Use/Reuse - By-Product 1
- Use/Reuse - Spent Material 2

Wastewater Treatment
- Reclamation - Sludge 6
- Reclamation - Sludge 9

Wastewater Treatment Sludge
- Reclamation - Sludge 2
- Reclamation - Sludge 6
- Reclamation - Sludge 9
- Use Constituting Disposal - Sludge 6

Water Elutriator System
- Reclamation - Scrap Metal 1
- Reclamation - Scrap Metal 3

Water Fluoridating Agent
- Use/Reuse - Sludge 3

Wet Process Phosphoric Acid Production
- Use/Reuse - Spent Material 5

Wool Industry
- Reclamation - Spent Material 21

Ziegler Natta Polymerization Catalyst
- Reclamation - Spent Material 8

Zinc
- Other - Non-Hazardous Secondary Material 3
- Other - Non-Hazardous Secondary Material 4
- Other - Non-Secondary Material 7
- Other - Non-Secondary Material 14
- Reclamation - By-Product 1
- Reclamation - By-Product 11
- Reclamation - Sludge 5
- Reclamation - Sludge 7
- Reclamation - Sludge 8
- Reclamation - Sludge 10
- Reclamation - Sludge 11
- Reclamation - Spent Material 13
- Reclamation - Spent Material 23
- Use Constituting Disposal - Sludge 6

Zinc, continued
Use Constituting Disposal - Spent Material 1
Use/Reuse - Sludge 2

Zinc Electroplating
Other - Non-Secondary Material 14
Reclamation - Spent Material 23