



# Federal Register

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**Tuesday,  
October 28, 2003**

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**Part II**

## **Environmental Protection Agency**

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**40 CFR Parts 260 and 261  
Revisions to the Definition of Solid  
Waste; Proposed Rule**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Parts 260 and 261**

[RCRA-2002-0031; FRL-7577-7]

RIN 2050-AE98

**Revisions to the Definition of Solid Waste****AGENCY:** Environmental Protection Agency.**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is today proposing revisions to the definition of solid waste that identify certain recyclable hazardous secondary materials as not discarded, and thus not subject to regulation as wastes under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The proposed rule would also establish specific regulatory criteria for determining whether or not hazardous secondary materials are recycled legitimately.

**DATES:** To make sure we consider your comments on this proposed rule, they must be postmarked by January 26, 2004.

**ADDRESSES:** Comments may be submitted by mail to: OSWER Docket, Environmental Protection Agency, Mailcode: 5305T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. RCRA-2002-0031. Comments may also be submitted electronically, or through hand delivery/courier. Follow the detailed instructions as provided in Section C of the **SUPPLEMENTARY INFORMATION** section.

**FOR FURTHER INFORMATION CONTACT:** For general information, contact the RCRA Call Center at (800) 424-9346 or TDD (800) 553-7672 (hearing impaired). In the Washington, DC, metropolitan area, call (703) 412-9810 or TDD (703) 412-3323. For more detailed information on specific aspects of this rulemaking, contact Dave Fagan at (703) 308-0603 ([fagan.david@epa.gov](mailto:fagan.david@epa.gov)), or Ingrid Rosencrantz at (703) 605-0709 ([rosencrantz.ingrid@epa.gov](mailto:rosencrantz.ingrid@epa.gov)).

**SUPPLEMENTARY INFORMATION:***A. Regulated Entities*

Entities potentially affected by this action are expected to include more than 1700 facilities that generate and/or recycle hazardous secondary materials. Most of these facilities are in manufacturing industries, and the most common types of recyclable materials that would be affected by the rule are metal-bearing secondary materials and solvents. The rule is expected to result

in a net savings to industry of approximately \$178 million per year. More detailed information on the entities, industries and materials potentially affected by this rule is presented in section VII.A. of this preamble.

*B. How Can I Get Copies of This Document and Other Related Information?*

**Docket.** EPA has established an official docket for this action under Docket ID No. RCRA-2002-0031. The official docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The public docket is the collection of materials that is available for public viewing at the OSWER Docket at the EPA Docket Center (EPA/DC), Room B102, EPA West Building, 1301 Constitution Avenue NW., Washington, DC. The EPA/DC Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the OSWER Docket telephone number is (202) 566-0270. Copies are \$0.15 per page. Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at <http://www.epa.gov/fedrgstr>. Comments on the proposed rule can be submitted through the federal e-rulemaking portal, <http://www.regulations.gov>.

An electronic version of the public docket is also available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at <http://www.epa.gov/edocket/> to submit or view public comments, access the index listing of the contents of the public docket, and access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA Docket. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public

docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility. EPA intends to work toward providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

For additional information about EPA's electronic public docket visit EPA Dockets online or see 67 FR 38102, May 31, 2002.

*C. How and to Whom Do I Submit Comments?*

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments.

Electronically. If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk

or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at <http://www.epa.gov/edocket>, and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select "Information Sources," "Dockets," and "EPA Dockets." Once in the system, select "search," and then key in Docket ID No. RCRA-2002-0031. The system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

Comments may be sent by electronic mail (e-mail) to [rcra-docket@epamail.epa.gov](mailto:rcra-docket@epamail.epa.gov), Attention Docket ID No. RCRA-2002-0031. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access" system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

You may submit comments on a disk or CD ROM that you mail to the mailing address identified in the following paragraph. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

**By Mail.** Send comments to: OSWER Docket, Environmental Protection Agency, Mailcode: 5305T, 1200 Pennsylvania Ave. NW., Washington, DC 20460, Attention Docket ID No. RCRA-2002-0031.

**By Hand Delivery or Courier.** Deliver your comments to: OSWER Docket, EPA West Building, Room B102, 1301 Constitution Avenue NW., Washington, DC, Attention Docket ID No. RCRA-2002-0031. Such deliveries are only accepted during the Docket's normal hours of operation as identified in the "How Can I Get Copies of This Document and Other Related Information?" section.

How Should I Submit CBI to the Agency?

Do not submit information that you consider to be confidential business information (CBI) electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: RCRA CBI Document Control Officer, Office of Solid Waste (5305W), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, Attention Docket ID No. RCRA-2002-0031. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR, Part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

**D. What Should I Consider as I Prepare My Comments for EPA?**

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.
2. Describe any assumptions that you used.
3. Provide any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at your estimate.

5. Provide specific examples to illustrate your concerns.

6. Offer alternatives.

7. Make sure to submit your comments by the comment period deadline identified.

8. To ensure proper receipt by EPA, identify the appropriate docket identification number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and **Federal Register** citation related to your comments.

#### Preamble Outline

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### I. Statutory Authority

These regulations are proposed under the authority of sections 2002, 3001, 3002, 3003, and 3004 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6921, 6922, 6923, and 6924.

### II. Background

#### A. What Is the Intent of Today's Proposed Rule?

Today's proposed rule is intended to revise and clarify the RCRA definition of solid waste as it pertains to certain types of hazardous secondary materials that are not considered to be discarded, and thus are not considered wastes subject to regulation under RCRA Subtitle C. This regulatory action was initiated primarily in response to decisions by the United States Court of Appeals for the D.C. Circuit, which, taken together, have provided the Agency with additional direction in this area. Specifically, this proposal would define those circumstances under which materials would be excluded from RCRA's hazardous waste regulations because they are generated and reclaimed in a continuous process within the same industry.

This proposal represents an important restructuring of the RCRA regulations that distinguish wastes from non-waste materials for Subtitle C purposes, and that ensure environmental protections over hazardous waste recycling practices. As such, it is also an opportunity for the Agency to clarify in a regulatory context the concept of "legitimate recycling," which has been and is a key component of RCRA's regulatory program for hazardous material recycling, but which to date has been implemented without specific

regulatory criteria. Today's proposal thus includes specific regulatory provisions for determining when hazardous wastes and other hazardous secondary materials are recycled legitimately.

Today's proposal is de-regulatory in nature, in that certain recyclable materials that have heretofore been subject to hazardous waste regulations would no longer be regulated under the hazardous waste regulatory system. The proposed criteria for legitimate recycling codify existing principles, without increasing regulation. This proposal is not intended to bring new wastes into the RCRA Subtitle C regulatory system.

By removing hazardous waste regulatory controls over certain recycling practices, and by providing more explicit criteria for determining the legitimacy of recycling practices in general, EPA expects that this proposed rule will encourage safe, beneficial recycling of hazardous secondary materials by industry. This regulatory initiative is thus consistent with the Agency's longstanding policy of encouraging the recovery and reuse of valuable resources as an alternative to land disposal. It is also consistent with one of the primary goals of the Congress in enacting the RCRA statute (as evidenced by its name), and with the Agency's vision of how the RCRA program could evolve over the longer term to promote sustainability and more efficient use of resources.<sup>1</sup> Finally, this regulatory proposal is an important component of EPA's recently announced "Resource Conservation Challenge," which is designed to encourage and provide new incentives for increased reuse and recycling of materials, including hazardous wastes and hazardous secondary materials (for further information on this initiative see <http://www.epa.gov/epaoswer/osw/conserves/index.htm>).

It should be understood that today's proposal does not attempt to resolve all issues surrounding the current RCRA Subtitle C recycling regulations. Since the current regulations were put in place in 1985 (see 50 FR 614-668, January 4, 1985), many of the program's stakeholders have expressed the view that the current system is unnecessarily restrictive, and imposes regulatory controls that often discourage legitimate recycling opportunities by industry. These stakeholders have often argued

that the Agency should commit itself to fundamentally restructuring the current rules, to ease controls over a wide range of recycling practices. On the other hand, other stakeholders have argued that the current regulations are in some ways too lenient, and that greater accountability and tighter controls should be built into the system.

EPA has participated with a variety of stakeholder groups in several initiatives aimed at exploring and developing comprehensive new approaches to regulating hazardous material recycling. Unfortunately, these initiatives have been largely unsuccessful. In EPA's view, these unsuccessful efforts to comprehensively revise the RCRA recycling system are in large part attributable to the fundamental difficulty of trying to distinguish wastes from non-waste materials in a national regulatory framework that applies to an exceptionally broad array of industries, materials and recycling practices.

Today's proposal, which addresses a particular set of recycling activities, is prompted by concerns articulated in the D.C. Circuit Court's opinions. Together with the legitimacy criteria also discussed today, the proposed exclusion is crafted to cover those cases where discard most likely does not occur because materials are being truly reused or recycled in a continuous process within the generating industry. EPA intends to continue exploring whether further initiatives aimed at encouraging legitimate recycling of hazardous secondary materials are warranted. We invite comment on this issue. Specifically, we are interested in stakeholder views as to whether EPA should undertake additional actions to encourage recycling of materials that would remain regulated as wastes under today's proposal. In this regard, most helpful would be comments describing what specific actions might be appropriate for this purpose, and the potential environmental and economic impacts that might be associated with such actions.

#### B. Who Would Be Affected by Today's Proposed Rule?

Today's proposal would most directly affect those who generate, reclaim and reuse hazardous secondary materials in a continuous process within the generating industry, in accordance with the provisions of today's proposal. These materials would not be considered to be discarded under the proposal (and thus would not be wastes), so those who manage them would no longer be subject to hazardous waste regulatory requirements. EPA estimates that approximately 70% of the

<sup>1</sup> The Agency's long-term "vision" of the future of the RCRA program is discussed in the document "Beyond RCRA: Prospects for Waste and Materials Management in the Year 2020," which is available on the Agency's Web site at <http://www.epa.gov/epaoswer/osw/vision.htm>.

materials potentially affected by today's proposed regulatory exclusion are generated in the following industries:

- Inorganic chemicals
- Plastic Materials and Resins
- Pharmaceutical Preparations
- Cyclic Crudes and Intermediates
- Industrial Organic Chemicals
- Secondary Smelting of Nonferrous Metals
- Plating and Polishing
- Printed Circuit Boards

More detailed discussion of the potential impacts of this rule on the regulated community is presented in section VII.A. of this preamble.

In addition to the industries that may potentially benefit from the regulatory exclusion in today's proposal, the proposed provisions relating to legitimacy of recycling activities should provide a more general benefit to those who are engaged in hazardous material recycling, by providing clearer, more explicit rules for distinguishing between recycling practices that are legitimate, and those that EPA considers to be "sham" recycling.

#### C. How Is Hazardous Waste Recycling Currently Regulated?

The basic regulatory provisions for defining "solid wastes" and "hazardous wastes" under RCRA are found in part 261 of title 40 of the Code of Federal Regulations (CFR). To be subject to RCRA's hazardous waste regulatory program, a material must be a solid waste that is also a hazardous waste. A solid waste is a hazardous waste if it is explicitly listed as such (in subpart D of part 261), or if it exhibits a hazardous characteristic (as specified in subpart C of part 261).

In general, hazardous wastes are subject to RCRA's full "cradle to grave" regulatory system, from the time they are generated to when they ultimately are disposed of. However, hazardous secondary materials can often be recycled instead of being disposed, which can change how those wastes are regulated. The "definition of solid waste" regulations in part 261 in effect separate recyclable hazardous secondary materials into two broad categories—those that are classified as solid wastes when recycled, and are therefore subject to regulation under RCRA, and those that are not considered solid wastes when they are recycled, and thus are not regulated. It should be understood that the term "hazardous secondary material" as it is used in today's proposed rule and preamble therefore refers to both categories of recyclable materials; that is, materials that are regulated as hazardous wastes when

recycled, and materials that are not considered wastes when recycled.

Hazardous secondary materials that are not regulated as wastes when they are recycled include, for example, those which are used or reused directly as effective substitutes for commercial products, and those which can be used as ingredients in an industrial process, provided the materials are not being reclaimed. *See* 40 CFR 261.2(e). In essence, EPA considers these types of recycling practices to be more akin to normal industrial production than waste management. EPA does not consider them to involve management of discarded materials for purposes of RCRA Subtitle C.

In contrast, some recycling practices bear more resemblance to waste management, and the hazardous secondary materials therefore remain regulated as wastes. One type of recycling that falls within this category and that is especially relevant to this proposed rule is reclamation of certain types of hazardous secondary materials. Reclamation involves processing of secondary materials in some way so that the materials can be used or reused. *See* 40 CFR 261.1(c)(4) and 40 CFR 261.2(c)(3). An example of reclamation is processing of a spent solvent to restore its solvent properties before it is suitable for reuse as a solvent. As explained elsewhere in this preamble, today's proposal would de-regulate a specific subset of these materials that are recycled by being reclaimed.

The existing part 261 regulations identify other types of recycling practices that are fully regulated because they generally are more likely to involve discard of materials (*see* 40 CFR 261.2(c)). These practices include recycling of "inherently waste-like" materials, recycling of materials that are "used in a manner constituting disposal," and "burning of materials for energy recovery." Today's proposal is not intended to affect how these recycling practices are regulated.

The current regulations also provide certain specific exemptions and exclusions from the definition of solid waste for particular recycling practices. For example, pulping liquors from paper manufacturing that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process are excluded from regulation under 40 CFR 261.4(a)(6). In some cases, these exclusions specify certain conditions that must be met in order to qualify for and maintain the excluded status of the recycled material. An example of such a "conditional exclusion" is the one provided in 40 CFR 261.4(a)(9) for spent wood preserving solutions that are

reclaimed and reused. Today's proposal would impact some of these existing exclusions, as discussed in Section III.A. below.

#### D. What Are the Legal Issues Surrounding the Definition of Solid Waste?

##### 1. Background

RCRA gives EPA authority to regulate the management of "solid wastes" under its non-hazardous waste program. *See, e.g.*, RCRA sections 1008(a), 4001 and 4004(a). RCRA also gives EPA authority to regulate hazardous wastes. *See, e.g.*, RCRA sections 3001–3004. "Hazardous wastes" are the subset of solid wastes that present threats to human health and the environment. *See* section 1004(5). EPA may also address solid and hazardous wastes under its endangerment authorities in section 7003. (Similar authorities are available for citizen suits under section 7002.) Materials that are not wastes are generally not subject to regulation under RCRA Subtitle C. Thus, the definition of "solid waste" plays a key role in defining the scope of EPA's RCRA's authorities.

The statute defines "solid waste" as "\* \* \* any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material \* \* \* resulting from industrial, commercial, mining, and agricultural operations, and from community activities.\* \* \*" RCRA Section 1004 (27) (emphasis added). In its RCRA regulations, EPA has historically defined some materials destined for recycling as "waste," while excluding others.

Since 1980, EPA has interpreted "solid waste" under its Subtitle C regulations to encompass both materials that are destined for final, permanent placement in disposal units, as well as *some* materials that are destined for recycling. 45 FR 33090–95 (May 19, 1980); 50 FR 604–656 (Jan. 4, 1985) (*see especially* pages 616–618). EPA has offered three arguments in support of this approach:

- The statute and the legislative history suggest that Congress expected EPA to regulate as wastes some materials that are destined for recycling (*see* 45 FR 33091, citing numerous sections of the statute and *U.S. Brewers' Association v. EPA*, 600 F. 2d 974 (D.C. Cir. 1979); 48 FR 14502–04 (April 3, 1983); and 50 FR 616–618).

- Many materials stored or transported prior to recycling present the same types of threats to human health and the environment as materials

stored or transported prior to disposal. In fact, EPA found that recycling operations have accounted for a number of notorious damage incidents. For example, materials destined for recycling were involved in one-third of the first 60 filings under RCRA's imminent and substantial endangerment authority, and 20 of the first sites listed under CERCLA. (48 FR 14474, April 4, 1983) (The Agency has not, however, compiled definitive data on more recent damage cases associated with recycling operations.) Congress also cited some damage cases which can be interpreted to involve recycling. H.R. Rep. 94-1491, 94th Cong., 2d Sess., at 17, 18, 22.

- Excluding all materials destined for recycling would allow materials to move in and out of the hazardous waste management system depending on what any person handling the material intended to do with it. This seems inconsistent with the mandate to track hazardous wastes and control them from "cradle to grave."

Interpreting the statute to confer jurisdiction over at least some materials destined for recycling, EPA has developed in part 261 of 40 CFR a definition of "solid waste" for Subtitle C regulatory purposes. (Note that this definition is narrower than the definition of "solid waste" for RCRA endangerment and information gathering authorities. See 40 CFR 261.1(b) and *Connecticut Coastal Fishermen's Association v. Remington Arms Co.*, 989 F.2d 1305, 1315 (2d Cir. 1993), holding that EPA's use of a broader and more specific definition of solid waste for Subtitle C purposes is a reasonable interpretation of the statute.)

Under its Subtitle C regulations, EPA classifies as solid wastes some—but not all—secondary materials that are recycled by "reclamation." The regulations define "spent materials" as being "discarded" if they are destined for reclamation. However, "commercial chemical products" are not defined as "discarded" when reclaimed. Byproducts and sludges are defined as "discarded" on a case-by-case basis. EPA regulates these materials when they are reclaimed, when it has listed them in the context of a hazardous waste listing determination. However, EPA does not regulate by-products and sludges being reclaimed that are not listed hazardous wastes. See Table 1 to 40 CFR 261.2. Finally, EPA has promulgated three exceptions from the Subtitle C definition for materials destined for reclamation. See 260.31(b) and (c); 40 CFR 261.4(a)(8).

In a reclamation operation, some components of a material are recovered and reused, while others are separated

and in some cases are discarded. The variety of regulatory approaches to reclamation reflects the fact that EPA has found that some reclamation processes involve discard (because they more closely resemble waste management), while other such processes do not (because they more closely resemble normal manufacturing).

Finally, EPA has always asserted that materials are not excluded from its jurisdiction simply because someone claims that they will be recycled. EPA has consistently considered materials destined for "sham recycling" to be discarded and, hence, to be solid wastes for Subtitle C purposes. See 45 FR 33093 (May 19, 1980), 50 FR 638-39 (Jan. 4, 1985). The U.S. Court of Appeals for the D.C. Circuit has agreed that materials undergoing sham recycling are discarded and, consequently, are solid wastes under RCRA. See *American Petroleum Institute v. EPA*, 216 F.3d 50, 58-59 (D.C. Cir. 2000);

## 2. A Series of D.C. Circuit Court Decisions

Trade associations representing mining and oil refining interests challenged EPA's 1985 regulatory definition of solid waste. In 1987, the D.C. Circuit held that EPA exceeded its authority "in seeking to bring materials that are not discarded or otherwise disposed of within the compass of "waste." *American Mining Congress v. EPA* ("AMC I"), 824 F.2d 1177, 1178 (D.C. Cir. 1987). Although the Court clearly articulated this concept, it did not specify which portions of the rules exceeded EPA's authority. It more generally "granted the petition for review."

The Court held that some of the materials EPA was seeking to regulate were not "discarded materials" under section 1004(27). After reviewing numerous statutory provisions and portions of the legislative history, the Court held that Congress used the term "discarded" in its ordinary sense, to mean "disposed of" or "abandoned." 824 F.2d at 1188-89. The Court further held that the term "discarded materials" could not include materials \* \* \* *destined for beneficial reuse or recycling in a continuous process by the generating industry itself* (because they are not yet part of the waste disposal problem." 824 F.2d at 1190 (italics in original). The Court held that Congress had directly spoken to this issue, so that EPA's use of a conflicting definition was not entitled to deference under *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984). 824 F.2d at 1183, 1189-90, 1193.

At the same time, the Court did *not* hold that no recycled materials could be discarded. The Court mentioned at least two examples of recycled materials that EPA properly considered within its statutory jurisdiction, noting that used oil to be reused as fuel and metal-bearing secondary materials stored in open piles which leached into the environment while stored for reuse in metals recovery can be considered to be solid wastes. 824 F.3d at 1187 (fn 14) and 1191 (fn 20). Also, the Court suggested that materials disposed of and recycled as part of a waste management program are within EPA's jurisdiction. 824 F. 2d at 1179. Subsequent decisions by the D.C. Circuit also indicate that some materials destined for recycling are "discarded" and therefore within EPA's jurisdiction. The Court held that emission control dust from steelmaking operations listed as hazardous waste "K061" is a solid waste, even where sent to a metals reclamation facility, at least where that is the treatment method required under EPA's land disposal restrictions program. *American Petroleum Institute v. EPA* ("API I"), 906 F.2d 729 (D.C. Cir. 1990). The Court held that listed wastes managed in units that are part of wastewater treatment units are discarded materials (and solid wastes), especially where it is not clear that the industry actually reuses the materials. ("AMC II"), 907 F. 2d 1179 (D.C. Cir. 1990). Also, the Court found that EPA potentially had jurisdiction over oil-bearing wastewaters recycled at petroleum refineries, although in the rule under review EPA failed to provide a rational basis for asserting jurisdiction. *American Petroleum Institute v. EPA* ("API II"), 216 F.3d 50, 57-58 (D.C. Cir. 2000).

It is also worth noting that two other Circuits also have held that EPA has authority over at least some materials destined for reuse rather than final discard. The U.S. Court of Appeals for the 11th Circuit found that "[i]t is unnecessary to read into the term 'discarded' a congressional intent that the waste in question must finally and forever be discarded." *U.S. v. ILCO*, 996 F.2d 1126, 1132 (11th Cir. 1993) (finding that used lead batteries sent to a reclaimer have been "discarded once" by the entity that sent the battery to the reclaimer). The Fourth Circuit found that slag held on the ground untouched for six months before sale for use as road bed could be a solid waste. *Owen Electric Steel Co. v. EPA*, 37 F.3d 146, 150 (4th Cir. 1994).

Considering all of these decisions (except the API case decided in 2000), in 1998 EPA promulgated a rule adjusting its Subtitle C jurisdiction over

materials recycled by reclamation within the mineral processing industry (the "LDR Phase IV rule"). 63 FR 28556 (May 26, 1998). In that rule, EPA promulgated a conditional exclusion for all types of mineral processing materials destined for reclamation. EPA imposed a condition prohibiting land-based storage prior to reclamation because it considered secondary materials from the mineral processing industry that were stored on the land to be part of the waste disposal problem. 63 FR at 28581. The conditional exclusion decreased regulation over spent materials stored prior to reclamation, but increased regulation over by-products and sludges that exhibit a hazardous characteristic, and that are stored prior to reclamation. EPA noted that the statute does not authorize it to regulate "materials that are destined for immediate reuse in another phase of the industry's ongoing production process." EPA, however, took the position that materials that are removed from a production process for storage are not "immediately reused," and therefore, are "discarded." 63 FR at 28580.

The mining industry challenged the rule, and the D.C. Circuit vacated the provisions that expanded jurisdiction over characteristic by-products and sludges destined for reclamation. *Association of Battery Recyclers v. EPA* ("ABR"), 208 F.3d 1047 (D.C. Cir. 2000). The Court held that it had already resolved the issue presented here in its opinion in *AMC I*, where it found that "\* \* \* Congress unambiguously expressed its intent that 'solid waste' (and therefore EPA's regulatory authority) be limited to materials that are 'discarded' by virtue of being disposed of, abandoned, or thrown away." 208 F.2d at 1051. It repeated that materials reused within an ongoing industrial process are neither disposed of or abandoned. 208 F.3d at 1051-52. It explained that the intervening API I and AMC II decisions had not narrowed the holding in *AMC I*. 208 F.3d at 1054-1056.

At the same time, the Court did not hold that storage before reclamation automatically makes materials "discarded." Rather, it held that "\* \* \* at least some of the secondary material EPA seeks to regulate as solid waste (in the mineral processing rule) is destined for reuse as part of a continuous industrial process and thus is not abandoned or thrown away." 208 F.3d at 1056.

### 3. Today's Action

EPA has promulgated a final rule removing from the *Code of Federal Regulations* the byproduct and sludge

provisions of the 1998 mineral processing exclusion that the Court vacated in *ABR*. 67 FR 11251 (Mar. 13, 2002). Nonetheless, EPA views *ABR* as creating an opportunity to re-examine its rules and interpretations and clarify whether they regulate certain materials that are not "discarded." In today's proposed rule, therefore, EPA is attempting to identify a certain class or category of materials that EPA has determined are *not* discarded for purposes of Subtitle C. As explained in more detail elsewhere in this notice, EPA generally believes that such materials may include those that are recycled by being reclaimed within the same industry in which they were generated. EPA thinks that other classes of recycling activities, such as "burning for energy recovery," "use constituting disposal," and recycling of materials classified as "inherently waste-like" clearly involve elements of discard.

EPA is today proposing that any material which is generated and reclaimed in a continuous process within the same industry (as defined in today's proposal) is not "discarded" for purposes of Subtitle C, provided that the recycling process is "legitimate." Guided by the *AMC I* and *ABR* opinions, EPA is proposing to exclude these materials from the definition of solid waste for purposes of Subtitle C. Under this approach, EPA is proposing that when generation and reclamation occur on a continuous basis within a single industry (as the terms are defined in this proposal), secondary materials would not be regulated as solid wastes.

Looking to the D.C. Circuit decisions for guidance, EPA is proposing today to exercise its discretion to interpret the statutory term "discard" for Subtitle C purposes. EPA is proposing that materials recycled in a continuous process within the generating industry would not be considered solid wastes for Subtitle C purposes. For reasons articulated later in this preamble, EPA believes that it must draw lines to provide a measure of regulatory certainty. EPA believes that the lines it is proposing today reflect reasonable judgments.

EPA notes that the term "solid waste" is used in several places in the statute in addition to Subtitle C. EPA, however, is limiting the specific definitions in today's proposal to its Subtitle C regulations. While the general concepts that the Court articulated may also play a role in other RCRA provisions, EPA does not think the detailed scheme involving "industry" classifications and time limits on processing which it has developed for this rule are necessarily appropriate for other RCRA provisions.

For example, RCRA section 7003 gives EPA authority to compel actions to abate conditions that may present an "imminent and substantial endangerment" involving solid wastes. EPA uses this authority on a case-by-case basis. The Agency can determine in a specific factual context whether a material which causes an endangerment is discarded. Finally, EPA notes that it continues to regard any material intended for recycling that escapes into the environment as "discarded" and, therefore, within its statutory jurisdiction.

### *E. What Suggestions Have Stakeholders Offered for Future Efforts To Revise the Current Recycling Regulations?*

In the final rule responding directly to the vacatur ordered by the United States Court of Appeals for the District of Columbia Circuit in *Association of Battery Recyclers, v. EPA* 208 F.3d 1047 (2000) (67 FR 11251-4, March 13, 2002), EPA asked stakeholders to submit suggestions for possible future revisions to the current recycling regulations.

The Agency received responses from both States and industry stakeholders. Some comments pertained to specific waste streams or industrial processes, but others were broader in nature. Although many of the broader suggestions are outside the scope of the current proposal, EPA would like to briefly summarize the comments here in order to continue the public dialogue on possible future efforts. In addition, the full set of these suggestions are included in the docket to today's proposed rulemaking. EPA requests comment on both these and any other possible revisions to the definition of solid waste that might be included in future proposals.

Most of the comments from industry stakeholders focused on the regulatory definition of "discarded material" found in 40 CFR 261.2(a)(2). Many of these stakeholders encouraged the Agency to address broadly the issue of when "discard" of recyclable materials occurs. Several commenters, including the American Chemistry Council (ACC), American Petroleum Institute (API), Chevron-Texaco and the International Precious Metals Institute (IPMI) suggested removing "recycled" from the definition of discarded materials. Commenters offered different regulatory alternatives to ensuring that "sham recycling" does not occur as a result of removing recycling from the definition of discard, including suggesting that EPA specify "legitimacy criteria" (ACC), suggesting EPA delineate material management factors that would indicate discard (IPMI), or including specific

“sham” practices in the definition of solid waste (API and Chevron-Texaco).

The Synthetic Organic Chemical Manufacturers Association (SOCMA) raised issues on clarifying the terms “continuous industrial process,” “generating industry” and “off-site/on-site.” SOCMA provided examples of how the different terms could be applied to the Association’s members. SOCMA also provided specific comments and regulatory language for an expanded variance procedure to exempt materials from the definition of solid waste.

API and Chevron-Texaco offered the most specific comments, attaching regulatory language for discussion. Chevron-Texaco suggested adding a requirement that material with hazardous constituents above Universal Treatment Standard (UTS) levels that is managed such that the material is released to the environment would be considered discarded. API offered several possible new additions to the definition of discarded material, which closely follow examples that EPA has used in past rulemaking and guidance. (see October 3, 2002 letter from API to EPA).

Several commenters (e.g. API, SOCMA) focused on the decision’s discussion of a waste being recycled in a “continuous industrial process.” They stated that a “continuous” process encompasses all of the steps between original production of a raw material and eventual disposal, including any reclamation that might occur. These commenters believed that “continuous industrial process” did not necessarily imply only a single industry. Commenters cited examples of generators sending material off-site to recyclers who reclaim the material for reuse in other industries.

Other industry-suggested revisions include creating a variance process for waste going to environmentally protective recycling (ACC), adding specific language that co-products are not solid waste (Hogan and Hartson, LLP), extending the storage accumulation times (SOCMA), revising the definition of “accumulated speculatively” in 40 CFR 261.1(b)(8) for the mining and mineral processing industry (National Mining Association), and a recycling exclusion for spent pickle liquor recycling efforts (American Iron and Steel Institute).

The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) expressed general support for simplifying the current regulations and encouraging recycling. However, they also expressed the strong opinion that codified legitimacy criteria

should be included in any changes, and that a notification or certification provision be added to allow state regulatory agencies to determine whether recycling practices are legitimate.

#### *F. What Is the Scope of Today’s Proposed Rule?*

As discussed previously in this section of today’s preamble, spent materials, listed sludges and listed byproducts that are recycled by being reclaimed are currently considered wastes for RCRA regulatory purposes. Today’s proposal would affect a particular subset of these waste materials. Specifically, materials that are “generated and reclaimed in a continuous process within the same industry” (as defined in this proposal) would no longer be regulated under RCRA’s Subtitle C hazardous waste management system.

Today’s proposed 40 CFR 261.2(g)(2) also requires that reclamation of excluded materials within the generating industry must produce a product or ingredient that can be used or reused without any further reclamation. This requirement is intended to prevent situations where excluded materials might be only partially reclaimed within the generating industry, and then sent to a different industry for one or more “final” reclamation steps. We do not believe that such partial reclamation practices would be consistent with the concept of “continuous process within the same industry” as it is articulated in today’s proposal.

Today’s proposal would not affect materials that are reclaimed in other ways. Thus, spent materials, listed by-products and listed sludges that are generated and reclaimed in different industries would generally remain subject to regulation as wastes. This proposal would also not affect materials that are currently considered wastes because they are recycled in a certain way. This category of wastes includes materials that are “inherently waste-like,” materials that are “speculatively accumulated,” materials that are recycled and “used in a manner constituting disposal,” and materials that are “burned for energy recovery.” The regulatory provisions for these categories of wastes are found in 40 CFR 261.2.

Today’s proposal would also codify in regulations criteria for assessing “legitimate recycling” of hazardous secondary materials. These criteria would apply not only to the materials that would be excluded under today’s proposal, but more broadly to recycling

of hazardous wastes, as well as recycling of hazardous secondary materials that are not considered wastes when they are recycled. These criteria for legitimate recycling would not, however, apply to materials that are not hazardous wastes, or materials that do not exhibit a hazardous characteristic.

### **III. Detailed Description of Today’s Proposed Rule**

#### *A. Exclusion for Hazardous Secondary Materials Generated and Reclaimed in a Continuous Process Within the Same Industry*

##### 1. What Is the Intent of the Proposed Exclusion?

Today’s proposal would exclude from the RCRA regulatory definition of solid waste hazardous secondary materials that are generated and reclaimed in a continuous process within the same industry. As discussed in the previous section of this preamble, the D.C. Circuit Court’s decisions have provided general direction to the Agency as to the meaning of “discarded materials” in section 1004(27) and the extent of the Agency’s Subtitle C jurisdiction over recycling. Today’s proposed rule is intended to define “solid waste” for Subtitle C purposes in a way that we believe is consistent with the Court’s general direction, to establish specific rules for how the exclusion will be implemented, and explain how the exclusion fits into RCRA’s general regulatory framework.

Today’s proposal would modify the current regulatory provision at 40 CFR 261.2(c)(3), which specifies that some types of hazardous secondary materials are wastes if their recycling involves reclamation. In effect, we are proposing to relinquish regulatory controls over such materials, provided that they are generated and reclaimed in accordance with today’s proposal. This proposal, which we believe is consistent with the Court’s opinions, would generally exclude materials that are recycled in a manner more akin to normal industrial production than waste management.

##### 2. What Is “Reclamation?”

“Reclamation” of materials can involve a number of different types of activities and end results. As defined in 40 CFR 261.1(c), a material is reclaimed “\* \* \* if it is processed to recover a usable product, or if it is regenerated.” From a technical standpoint, some reclamation processes are relatively simple, such as magnetic separation of ferrous metals from a pollution control sludge. Other types of reclamation may be much more complex, and may involve a series of processing steps to



obtain the desired end-product. An example could be where a solid-form secondary material is separated into different fractions and then smelted to recover metal constituents.

In some cases, reclamation essentially involves extraction of a valuable component from a waste or other material. An example of this type of reclamation occurs in the mineral processing industry, such as when smelter by-products are processed in a series of steps to successively extract several different precious metals. Another type of reclamation involves "regenerating" used products or materials so that they can be reused for their original purpose, or some other purpose. A common example of this type of reclamation is found in the steel making industry, where "pickling" acids are used to remove scale and other impurities from steel, eventually lose their acidic properties, and must be reclaimed before they can be used again as pickling agents. In this case, the reclamation process may yield both regenerated pickling acid, as well as a marketable iron oxide product.

### 3. What Types of Materials Would Be Eligible for the Proposed Exclusion?

Under the current regulations, certain hazardous secondary materials that are recycled by being reclaimed are considered wastes (see 40 CFR 261.2(c)(3)). These materials include sludges and by-products that are listed hazardous wastes (see listings in 40 CFR 261.31 and 40 CFR 261.32), scrap metal, and listed or characteristic "spent materials." As defined in 40 CFR 261.1(c), materials are "spent" when they are used and as a result of contamination can no longer serve the purpose for which they were produced without processing. Additional guidance on the definition of "spent material" may be found on the Agency's "RCRA Online" Internet data base, at <http://yosemite.epa.gov/OSW/rcra.nsf/Documents/8D46F076812A58D0852565DA006F0565>.

An example of a spent material would be a solvent that is used for degreasing metal parts, and which eventually becomes too contaminated for further use in degreasing. Similarly, under the current regulations some types of scrap metal are wastes prior to reclamation (although they are subject to less stringent Subtitle C regulations under 40 CFR 261.6).

Some materials that are "generated and reclaimed in a continuous process within the same industry" (as proposed today) would not be eligible for the exclusion. As specified in proposed 40 CFR 261.(g)(1), the exclusion would not

apply to recycling of materials that are "inherently waste-like" (see 40 CFR 261.2(d)), materials used in "a manner constituting disposal" (see 40 CFR 261.2(c)(1) and part 266, subpart C), or materials that are "burned for energy recovery" (see 40 CFR 261.2(c)(2)). Any of these recycling practices could potentially be conducted intra-industry. Nevertheless, these particular recycling practices have been identified by the Agency as being akin to discard, and therefore materials that are recycled in these specific ways are explicitly identified as wastes under the current regulations. The Agency does not intend to change the way these waste materials are regulated in today's proposal. We believe that the original logic for maintaining regulatory jurisdiction over these materials remains valid.

The basic premise of today's proposed exclusion is that materials that are "generated and reclaimed in a continuous process within the same industry" (as defined in this proposal) would not be considered wastes for Subtitle C purposes. Generally, when a material is reclaimed within the same industry that generated it, the material can remain useful to that industry, and thus is not discarded. In effect, the industry has not "finished" with the material; rather, it is to the advantage of the industry to continue using it as a substitute for other types of materials.

While the Agency believes that the types of material that would be eligible for the exclusion in today's proposal would generally not be discarded, we believe there may also be more technical reasons for excluding such materials. For one, processes and facilities that operate within the same industry are likely to use similar raw materials and process them in a similar manner. They are also likely to have expertise as to the types of secondary materials produced by their industry, their potential for recycling, and appropriate practices for managing such materials. For these practical reasons, EPA believes that the potential for environmental harm from de-regulating this type of recycling practice is likely to be relatively small compared to other types of recycling practices.

While we are proposing to define materials generated and reclaimed within the same industry as in-process materials that are not solid wastes for purposes of Subtitle C, this is not to say that all materials legitimately recycled between different industries are always solid wastes. In fact, the Agency has promulgated several specific exclusions to the definition of solid waste for materials that are generated in one industry and reclaimed in another. We

are not proposing to revisit those exclusions.

### 4. What Is Meant by a "Continuous Process Within the Same Industry?"

Proposed 40 CFR 261.2(g)(2) would establish the general regulatory framework for defining "continuous process within the same industry," and thus, how recycling must be conducted in order to qualify for the exclusion. As explained below, we are co-proposing today two different options for defining "continuous process within the same industry." The two options differ only in that one option (Option #2) would treat differently reclamation facilities that also accept hazardous wastes generated from different industries. We are co-proposing these two options today because the Agency believes both are viable and appropriate approaches and deserve equal consideration by commenters.

*Co-Proposal Option 1:* Under this option, hazardous secondary materials would have to be generated and reclaimed within a single industry in order to qualify for the exclusion (the definition of "industry" for the purpose of this proposal is discussed in section III.A.6 of this preamble, below). Thus, for example, if a hazardous secondary material was generated in the motor vehicle manufacturing industry and then shipped for reclamation to a facility in the ship and boat building industry, the exclusion would not apply, and the materials would be regulated as hazardous wastes.

Under proposed 40 CFR 261.2(g)(2), reclamation of excluded material could take place in multiple processing steps, provided that each processing step takes place in the same industry that generated the material. To illustrate, if a copper-bearing sludge required three separate reclamation steps in order to produce a marketable product such as copper sulfate, each of those reclamation steps would have to take place within the same industry in order to qualify for the exclusion.

Proposed 40 CFR 261.2(g)(2) would also allow reclamation of excluded material to take place at one or more different locations or facilities, as long as each reclamation step occurs within the generating industry. In fact, we anticipate that, in many situations, reclamation of materials will take place at a different facility from where the materials were generated, but would remain within in the same industry. In some cases, excluded materials might be reclaimed in several steps, each time at a different location or facility, but within the same industry. As proposed, therefore, the exclusion would not place

any geographical limits on movements of excluded materials, provided that each facility where the material is reclaimed is in the same industry that originally generated the material.

It is likely that there will be many situations in which reclamation of an excluded material results in a finished end-product that needs no further reclamation, as well as a residual secondary material that has no further use and must be disposed of. Such residuals would be wastes, and thus not eligible for the exclusion. If the wastes were hazardous, they would need to be managed according to applicable hazardous waste regulations.

Today's proposal also anticipates situations where residuals from reclamation of excluded materials are sent to a different industry for further reclamation. As proposed in 40 CFR 261.2(g)(2)(ii), such residual materials would not be eligible for today's exclusion, since they would no longer be managed within the same industry. The fact that such materials are sent to another industry and are thus ineligible for the exclusion would not, however, affect the exclusion for materials that remained within the generating industry. To illustrate, if intra-industry reclamation of an excluded metal-bearing sludge generated a residual material that was then sent to a different industry for further reclamation, that residual would be considered a waste, but the exclusion for the original metal-bearing sludge would not be affected. Similarly, a reclamation process might generate two types of residual materials—one which could be further reclaimed in the same industry, and another that is amenable to reclamation in a different industry. In such cases, the material that continues to move in the same industry would continue to be excluded, while the residual material sent to a different industry would not be excluded.

*Co-Proposal Option #2:* Today's co-proposed Option #2 is identical to the first option described above, with one exception. Under Option #2, hazardous secondary materials that are generated and reclaimed in a continuous process within the same industry would not be eligible for the exclusion if the reclamation takes place at a facility that also recycles regulated hazardous wastes generated in a different industry. This option would, however, allow the exclusion for materials recycled within the same industry if the reclamation facility is also recycling non-hazardous wastes, or hazardous materials that are excluded from regulation under other provisions (such materials could include, for example, characteristic by-

products and sludges that are not solid wastes when reclaimed according to 40 CFR 261.2(c), or materials being used as effective substitutes for commercial products under 40 CFR 261.2(e)). This regulatory option would, in effect, establish a bright line to distinguish facilities that are engaged in recycling that is eligible for today's proposed exclusion, and facilities which could be considered to be engaged in commercial recycling, and which should thus be ineligible for the exclusion.

To illustrate this co-proposed option, if a paint manufacturer who reclaims spent solvents were to accept spent solvents from other paint manufacturers, as well as spent solvents from a generator in a different industry (e.g., an automobile repair shop), none of the spent solvents managed by the paint manufacturer would be eligible for the exclusion proposed today. If, however, in this example the solvents from the automobile repair shop were excluded under a different regulatory provision (e.g., because they are reused without reclamation—see 40 CFR 261.2(e)), the solvents generated and reclaimed within the paint manufacturing industry would be eligible for the exclusion.

*Advantages and disadvantages of Options #1 and #2.* The Agency believes that Option #1 described above would likely encourage more beneficial recycling, since it would allow the exclusion for a somewhat broader set of recycling practices. Another argument for this option might be that the exclusion for a material managed at a reclamation facility should not be affected by the fact that more stringently regulated materials (i.e., hazardous wastes) are also being managed at the facility. Such facilities would typically have RCRA permits, and thus would be subject to stringent design, operating and corrective action requirements. Some might argue, therefore, that such regulated facilities are well-suited to manage materials that would not be regulated under the terms of today's proposed exclusion.

With regard to Option #2, an advantage to this approach would be greater certainty to the regulated community as to when they would be ineligible for the exclusion we propose today. Otherwise, it could be difficult for a generator to determine if facilities engaged in intra-industry recycling that also recycle hazardous wastes from one or more different industries are engaged in a continuous process within the generating industry. Option #2 clearly defines whether the recycling is taking place within the generating industry by drawing a bright line between excluded

recycling and commercial recycling. As explained below, commercial recycling presents different legal and policy issues compared with recycling within other industries. For some facilities, this regulatory option would also address potential concerns regarding the mixing of excluded secondary materials with regulated hazardous wastes. Another concern is that if excluded secondary materials were allowed to be mingled with regulated hazardous wastes, it could be much more difficult for overseeing agencies to determine whether the generator and/or reclaimer were in compliance with the terms of the exclusion.

EPA requests comment on the two co-proposed regulatory options described above, particularly with regard to the advantages and disadvantages of the different approaches, their potential associated benefits, and whether such approaches would be consistent with the general direction given in this area by the D.C. Circuit Court of Appeals.

#### 5. What Other Options Were Considered for Defining "Continuous Process Within the Same Industry?"

In developing the exclusion in today's proposal, the Agency considered several alternative approaches to defining the concept of "continuous process within the generating industry." One option that was considered would define the scope of the exclusion depending on who uses the products of the recycling process after the secondary materials are reclaimed. Under this approach, to be eligible for the exclusion, the products from reclamation of secondary materials could be: (a) Sold to the general public if such products were considered typical products of the generating industry; or (b) reused as a product or ingredient within the generating industry, if the reclaimed material was not a typical product of the generating industry.

To illustrate this option, if a paint manufacturer received spent solvent from another paint manufacturer that s/he then reclaimed, the reclaimed solvent could not be sold to the general public and maintain the exclusion, under the assumption that solvent is not a typical product of the paint manufacturing industry. In this example, the reclaimed solvent would have to be reused within the paint manufacturing industry in order to maintain the exclusion. The paint manufacturer would thus have the option of reusing the solvent (e.g., as an ingredient in making paint), or selling it to another party within the paint manufacturing industry. Under this alternative approach, if the reclaimed

solvent were sold to, for example, a semi-conductor manufacturer, the incoming spent solvent would not be covered by the exclusion. This approach would, however, allow metal manufacturers to reclaim metals from excluded metal-bearing secondary materials and sell it to the general public, since metals would be a typical product of the metals industry.

EPA believes that promulgating the exclusion in this way could be a reasonable interpretation of the concept of "continuous process within the generating industry." One important issue that such an approach would raise, however, would be defining what would be considered a "typical product" of the generating industry (*i.e.*, what is a typical product of an industry as identified by a particular 4-digit NAICS code?). We request comment on this alternative generally, and on how to define "typical product of the generating industry."

EPA requests comment on the regulatory alternatives described above, particularly with regard to the need for such additional restrictions, their potential associated benefits, and whether such approaches would be consistent with the general direction given in this area by the D.C. Circuit Court of Appeals.

#### 6. How Is EPA Proposing To Define "Industry?"

##### Considerations for Defining "Same Generating Industry"

Consistent with the court's language, we are proposing to limit EPA's regulatory jurisdiction in cases where hazardous secondary materials are being generated and legitimately reclaimed in a continuous process within the same industry, because the activity is essentially ongoing manufacturing. In order to draft a regulation that sets out this principle, however, we needed to develop a useful definition of "industry" so that today's proposed exclusion could be implemented across a variety of materials, activities, and industries. In developing a definition of industry for this proposal, we considered (1) whether the definition could be easily identified and readily implemented; (2) whether it was simple (versus unnecessarily complicated); and (3) the degree to which the definition, when used as part of an "intra-industry" exclusion, resulted in outcomes consistent with the principle described above (*i.e.*, that the materials were being continuously used rather than discarded). After consideration of these criteria against several approaches described in more detail below, we

decided to propose using the North American Industry Classification System (NAICS) developed by the Office of Management and Budget (OMB) as the foundation for industry definitions in today's proposed rule.

We considered proposing a narrative definition of industry, using an engineering-oriented approach based on similarity of inputs, processes, and/or outputs (products). Under this comparative approach, industry would first be defined as a set of manufacturing or service activities. Conceptually, two or more industries would be considered the same industry where this set of manufacturing or service activities applies similar processes to input materials (*e.g.*, feedstocks, reagents, catalysts, etc.) having similar composition and/or value, to produce products or services with similar composition and/or value. We would then set out specific criteria, in a regulation, for measuring these similarities and determining when they were similar enough to be considered the same industry.

For example, this regulation could establish that processes are similar if they utilize comparable equipment and/or engineering principles; compositions (of either input materials, or products produced) are similar if concentrations of specific constituents (*e.g.*, hazardous constituents, valuable constituents) are within an order of magnitude; and values (again, of either input materials, or products produced) are similar if they are within some specified amount (*e.g.*,  $\pm 30\%$ ) on a per unit basis. We would also have to consider what the relative importance should be amongst the three elements described (inputs, processes, and outputs). For example, we would need to decide whether we consider similar inputs to be more important than similar outputs, in determining whether two industries would be considered the same.

This approach was initially attractive because it would not require us to evaluate or compile industry categories or lists, it could possibly be tailored to reflect certain principles to help distinguish discard from ongoing production, or it might have been more flexible than a prescriptive industry list. However, we found this approach unworkable for a number of reasons. Primarily, it would leave too much uncertainty about the boundaries of the Agency's jurisdiction. Specifically, it would provide little certainty to the regulated community, and would require regulatory agencies to consider individual reclamation scenarios on a case-by-case basis. Therefore, we decided not to pursue this approach.

We also considered creating our own list of specific industries or industry categories. We found, however, that while there might be some advantages to drafting our own list based on our own institutional knowledge and experience across Agency programs, a large amount of time and resources would be needed to classify many of the diverse types of industrial, service and government operations that produce waste and/or engage in recycling. While we have studied wastes and recycling for some industries in great detail (usually when making hazardous waste listing determinations), we have not studied many others. Another disadvantage to developing our own list would be that such a list would not necessarily reflect standardized, commonly accepted definitions of industry. The most widely-recognized existing industry classification system in the United States is the NAICS. In the past, we have used the Standard Industrial Classification (SIC) system (predecessor to the NAICS) to implement parts of RCRA Subtitle C. EPA has also commonly used the SIC system to implement portions of regulatory programs under other statutes.

We are therefore proposing to use the NAICS as the foundation for the industry definitions in today's proposed rule. We believe that the developers of the NAICS are more familiar with many of these diverse operations, and the NAICS list is also well known and widely accepted by industry. Consequently, we find it to be a reasonable starting point for defining "industry" with regard to identifying materials that are not "discarded" for purposes of RCRA Subtitle C.<sup>2</sup>

##### Background of NAICS

NAICS is a new industry classification system that has replaced the Standard Industrial Classification (SIC) system (most recently updated in 1987) that has traditionally been used by government agencies for collecting statistical data and for other administrative and regulatory purposes. Beginning in 1992, NAICS was developed on behalf of the OMB by the Economic Classification Policy Committee (ECPC), which was comprised of representatives of the

<sup>2</sup> EPA does not assert that all processes classified as the same industry within a single NAICS code are, in fact, so similar that spent materials, by-products and sludges from one process can easily be used by all other processes in the classification. However, given the structure and the purposes of the NAICS, EPA believes that it is reasonable to assume that they are substantially similar. EPA needs to classify broad categories of materials in this rule; it is impracticable to study every factual variation on a case-by-case basis.

Bureau of Economic Analysis, the Bureau of the Census, and the Bureau of Labor Statistics. On April 9, 1997, OMB published a **Federal Register** Notice of final decision (62 FR 17288) to adopt the NAICS for the United States.

Table 1 below provides an overview of the NAICS hierarchy, including

identification of the 20 NAICS sectors and the number of entities contained within the hierarchy at each of the various levels of detail. Under the NAICS classification hierarchy, the first two digits (of the 6-digit code) designate the Sector, the third digit designates the Sub-sector, the fourth digit designates

the Industry Group, the fifth digit represents the NAICS Industry (the most detailed level for making data comparisons across the U.S., Mexico, and Canada), and the sixth digit designates individual country-level national industries.

TABLE 1.—NAICS UNITED STATES STRUCTURE (FROM NAICS, 2002)

Sector and name	Sub-sectors (3-digit)	Industry groups (4-digit)	NAICS industries (5-digit)	6-digit industries		
				U.S. detail	Same as 5-digit	Total
11—Agriculture, Forestry, Fishing and Hunting .....	5	19	42	32	32	64
21—Mining .....	3	5	10	28	1	29
22—Utilities .....	1	3	3	6	4	10
23—Construction .....	3	10	28	4	27	31
31–33—Manufacturing .....	21	86	184	408	65	473
42—Wholesale Trade .....	3	19	71	0	71	71
44–45—Retail Trade .....	12	27	61	24	51	75
48–49—Transportation and Warehousing .....	11	29	42	25	32	57
51—Information .....	7	16	30	12	24	36
52—Finance and Insurance .....	5	11	32	15	27	42
53—Real Estate and Rental and Leasing .....	3	8	19	9	15	24
54—Professional, Scientific, and Technical Services .....	1	9	35	17	30	47
55—Management of Companies and Enterprises .....	1	1	1	3	0	3
56—Administrative and Support and Waste Management and Remediation Services .....	2	11	29	23	20	43
61—Educational Services .....	1	7	12	7	10	17
62—Health Care and Social Assistance .....	4	18	30	16	23	39
71—Arts, Entertainment, and Recreation .....	3	9	23	3	22	25
72—Accommodation and Food Services .....	2	7	11	7	8	15
81—Other Services (except Public Administration) .....	4	14	30	30	19	49
92—Public Administration .....	8	8	29	0	29	29
<b>Total .....</b>	<b>100</b>	<b>317</b>	<b>725</b>	<b>669</b>	<b>510</b>	<b>1,179</b>

While the NAICS uses a 6-digit coding system as just described, the 1987 SIC system it replaced employed a 4-digit coding system, where the fourth digit designates the industry. According to OMB, the two extra digits in the NAICS system (1) allow for more sectors<sup>3</sup> to be used (compared with the SIC system which was limited to ten sectors), and (2) allow for a category at the six-digit level to be available for national industry detail (that is, industries that would not appear on the Canadian or Mexican version of the NAICS). The additional two digits in the NAICS add flexibility to the hierarchy, but do not necessarily reflect a greater level of detail in the classification compared with the SIC. 62 FR 17291.

There are several important points we wish to emphasize regarding the NAICS system. First, this system was developed using a “production-oriented” concept, whereby producing units that use identical or similar production processes are grouped together in

NAICS. 62 FR 17289. We believe this is relevant for our purposes, because it makes sense that materials being generated from, and returned to, “identical or similar production processes” can be likewise viewed as being beneficially recycled “within the same industry.” Second, the NAICS, and its SIC predecessor, were designed solely for statistical purposes. The OMB emphasizes that while the NAICS will also be used for non-statistical purposes, such as regulatory purposes, the “requirements of government agencies that use it for non-statistical purposes have played no role in its development.” 62 FR 17294. Thus, we want to be clear that our proposal to rely on the NAICS system is, above all else, based upon its functionality as an existing, recognized system for classifying industries, which serves our purpose well. Finally, under the NAICS system, the owner/operator of a facility (or more appropriately, of an establishment) is tasked with determining his/her own industry classification, largely using the NAICS Manual for help in determining how to categorize his/her own establishment. In

today’s proposal, we will not be “assigning” NAICS categories to particular facilities or establishments. Rather, we are designing a system under which owners of facilities handling secondary materials will identify which NAICS code applies to them for RCRA recycling purposes. It simply is not practicable for EPA to review and make determinations for all of the individual facilities involved.

This aspect of NAICS (and its predecessor SIC) is not new. There are already EPA regulations where certain facility owner/operators need to identify their SIC category (e.g., for determining the applicability of the Toxic Chemical Release Reporting/Community Right-To-Know requirements; see 40 CFR 372.22); or that refer to the SIC categories (e.g., RCRA regulations that rely in part on SIC codes to delineate the scope of certain existing industry-specific hazardous waste listings and exclusions); or that require SIC classification information as part of required reporting for large quantity hazardous waste generators and RCRA permit applicants). There is a relatively long history of the use of an accepted

<sup>3</sup> “Sectors” are at the top of the classification hierarchy, the most fundamental category, such as agriculture, mining, manufacturing, education, retail, etc.

industrial classification system for both regulatory and non-regulatory purposes. We believe that the regulated community's familiarity with the NAICS system and its implementation is an important justification for our proposing this approach. We also believe this is particularly the case for those industries that generate hazardous secondary materials. We request comment on whether the regulated community will be unfamiliar with the existing NAICS system, or its implementation, particularly for those industries that would most directly be affected (*i.e.*, those that generate hazardous secondary materials).

Finally, we are proposing to identify industry for purposes of today's rule at the Industry Group level, or the 4-digit NAICS level of classification. Two establishments will be considered within the "same industry" if they share the same 4-digit NAICS code. In arriving at this approach, we considered using the 3-digit, 4-digit, and 5-digit level (NAICS Sub-sector, Industry Group, and Industry, respectively). We selected the 4-digit level because we believe that this level struck the appropriate balance between being overly broad (*i.e.*, undermining any meaningful distinctions of industry) and too narrow. We think operations that are similar, but not identical, can generate and reclaim secondary materials without discarding them. Moreover, we think the narrower 5- and 6-digit NAICS classifications would potentially be more complicated (*i.e.*, more categories to consider), and this could be considerably more difficult to implement. In addition, narrower industry categories could unrealistically and inappropriately restrict beneficial resource recovery and recycling opportunities.

Specifically, we first looked at the overall distribution of industry classifications within the NAICS hierarchy, as shown in Table 1, focusing in particular on the Manufacturing Sectors (31–33). We would estimate that the Manufacturing Sector in general, and the Chemical Manufacturing Sub-sector in particular, have the potential to generate the widest array of listed hazardous secondary materials, based on the industries found in these sectors and the listing descriptions in 40 CFR part 261, Subpart D. Under the NAICS Manufacturing Sectors, there are 184 Industries (5-digit), 86 Industry Groups (4-digit), and 21 Sub-sectors (3-digit). While it is evident simply from the number of categories that industry classification under NAICS is broader at the 3-digit level compared with the 5-digit level, it is difficult to make any further conclusions as to the effect of

this broadening or narrowing without looking at specific examples.

Looking more closely within the Chemical Manufacturing Sub-sector, there are seven Industry Groups at the 4-digit level, and 17 Industries at the 5-digit level. According to the NAICS 2002 Manual, the seven Industry Groups within the Chemical Manufacturing Sub-sector were defined with a particular relationship in mind. That is,

The Chemical Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process and the formulation of products. This subsector distinguishes the production of basic chemicals that comprise the *first industry group* from the production of intermediate and end products produced by further processing of basic chemicals that make up the *remaining industry groups*. (emphasis added).

In other words, the "first industry group" under the Chemical Manufacturing Sub-sector is NAICS 3251, Basic Chemical Manufacturing, which includes basic chemical industries such as Petrochemical and Industrial Gas manufacturing. Looking at the remaining 4-digit Industry Groups, this relationship is evident—away from the production of basic chemicals, towards the production of more refined chemical intermediates and end products. For example, the next several Industry Groups: 3252 (industries that manufacture Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments), 3253 (Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing), 3254 (Pharmaceutical and Medicine Manufacturing), and 3255 (Paint, Coating, and Adhesive Manufacturing) all represent the "further processing of basic chemicals."

We think that these distinctions made at the 4-digit level in the Chemical Manufacturing industry present a reasonable and logical categorization of the different parts of the Chemical Manufacturing industry. In our view, these distinctions are important, and should be preserved by using the 4-digit level in this proposed approach. In general, we found that the use of the 3-digit codes grouped together processes that are too dissimilar to be considered the same "industry" under a basic, "common sense" approach. Use of the 3-digit NAICS would have the effect of collapsing these distinct categories into the NAICS 325 Sub-sector. A 3-digit NAICS classification might, however, have certain advantages, such as possibly providing more opportunities for recycling, or fewer disputes over the classification of establishments (because it is a broader categorization).

Alternatively, use of the 5-digit level increases the number of industry categories within the NAICS 325 Sub-sector to 17. Within the Chemical Manufacturing Industry Groups, this results largely in a breakout of the industries that are described in the Industry Group title. For example, the 4-digit Industry Group "Paint, Coating, and Adhesive Manufacturing" splits into "Paint and Coating" and "Adhesive" manufacturing at the 5-digit level; or, "Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments" breaks out to "Resin and Synthetic Rubber" and "Artificial and Synthetic Fibers and Filaments" at the 5-digit level. Because we are using the NAICS principally because it is a widely recognized, familiar system that can be consistently applied, we do not necessarily see an advantage in further dividing (in the Chemical Manufacturing example) the 4-digit Industry Groups into 5-digit Industries. In fact, the more finely divided one makes the NAICS hierarchy, the more complex the overall approach can become. We believe that using 4-digit NAICS industry groups strikes the appropriate balance for this rule, given the options available using the NAICS hierarchy.

Therefore, we do not find that the possible advantages of a 3-digit approach outweigh the reasons articulated for proposing the 4-digit NAICS classification; nor do we see the advantage for using the 5-digit approach, and have identified possible disadvantages compared with the 4-digit approach. Although this review involved only the chemical industry hierarchy, we would point out that the chemical manufacturing industry is an important component of the universe of RCRA generators, and therefore how it is defined under today's proposal is important. (As will be discussed further below, two other important industry categories in terms of waste generation—petroleum and mineral processing—are being handled in a manner different from the NAICS approach described here, for reasons explained in the next section of this preamble.) Nevertheless, we request comment on whether or not the 4-digit NAICS classification is the most appropriate, given the goals we have articulated, or whether the 3-digit or 5-digit approach would be more appropriate, and why.

Finally, we note that there are a number of 4-digit NAICS industry codes that are designated as "Other" activities

within an industry Sub-sector.<sup>4</sup> Generally, these categories seem to represent a more diverse set of process activities than occurs under other 4-digit NAICS codes. For example, NAICS 3259 (Other Chemical Product and Preparation Manufacturing) includes Printing Ink Manufacturing; Explosives Manufacturing; Custom Compounding of Purchased Resins; Photographic Film, Paper, Plate, and Chemical Manufacturing; and All Other Miscellaneous Chemical Product and Preparation Manufacturing. Moreover, as illustrated by the example 3259 industry group, even within the "Other" 4 digit designation there are classifications (usually ending with an "8" or "9") that are often labeled as "All Other." Using the proposed 4-digit NAICS approach, all of these categories, and activities under these categories, would fall under the same Industry Group (3259).

The "All Other" classifications also occur in industry groups that are not designated as "Other" in and of themselves. Using the Chemical Manufacturing example, there is NAICS 325188 (All Other Basic Inorganic Chemical Manufacturing) and 325199 (All Other Basic Organic Chemical Manufacturing). Within each of these categories, the NAICS provides eight examples of chemical manufacturing that fall under these categories (e.g., Enzyme Proteins, Plasticizers, and Silicone manufacturing under Organic; Hydrochloric acid, Sulfuric acid, Carbides, and Fluorine manufacturing under Inorganic). Using the proposed 4-digit NAICS approach, these categories would fall under the same Industry Group (3251).

Although EPA rejected an approach that would mix and match industry definitions using differing levels of the NAICS hierarchy, due to concerns that this would result in a NAICS list that would be too complicated while not achieving a clear benefit, EPA is soliciting comment on whether those Industry Groups or Industry designations that involve "Other" or "All Other" categorizations should be handled differently given the potential diversity within those categories.

<sup>4</sup> For example: NAICS 2379—Other Heavy and Civil Engineering Construction; 2389—Other Specialty Trade Contractors; 3259—Other Chemical Product and Preparation Manufacturing; 3279—Other Nonmetallic Mineral Product Manufacturing; Other Electrical Equipment and Component Manufacturing; 3379—Other Furniture Related Product Manufacturing; 3399—Other Miscellaneous Manufacturing.

Existing Definitions of "Industry" in RCRA Regulations

In some cases, EPA has promulgated definitions of certain "industries" in the RCRA regulations, to clarify the scope of a particular hazardous waste listing, hazardous waste exemption, or exclusion from the definition of solid waste. For example, the hazardous waste listing for "spent pickle liquor from the iron and steel industry" (K062) references SIC codes 331 and 332 to describe the scope of the listing. 40 CFR 261.32. Other examples are found at 40 CFR 261.32, a list of hazardous wastes from "specific sources." These wastes are grouped by "industry" category (e.g., inorganic pigments, organic chemicals, inorganic chemicals, pesticides, etc.), and each waste has a detailed listing description to help identify the waste.

The definition of industry being proposed today is only applicable to the changes we are proposing to make to the definition of solid waste for purposes of Subtitle C. For example, we are not proposing to change how the "source specific" hazardous wastes listed in 40 CFR 261.32 are defined. We also do not intend today's proposed redefinition of solid waste to change existing exclusions in a manner that regulates hazardous secondary materials as solid wastes, where prior rulemakings have established that these materials are excluded.

Finally, EPA has previously defined the scope of the petroleum and mineral processing industries in earlier rules establishing exclusions from the definition of solid waste for Subtitle C regulatory purposes. We are proposing to retain these definitions for these industries in lieu of using the NAICS approach under today's rule. As discussed below, we have already looked closely at the recycling of hazardous secondary materials within these industries, and have already described in various rulemaking documents the types of activities and operations that comprise these industries, for purposes of existing exclusions. To implement these existing definitions under today's proposal, we have added clarifying provisions to proposed Appendix X (Industries for the Purpose of 40 CFR 261.2(g)).

*Primary Mineral Processing.* EPA has described the scope of the primary mineral processing industry in several previous rulemakings, beginning with the 1986 Regulatory Determination on extraction and beneficiation wastes (51 FR 24496), and the September 1, 1989 Mining Waste Exclusion (54 FR 36592). In the September 1, 1989 rule, we articulated the factors we would use to

determine the scope of the mineral processing industry.<sup>5</sup> We are proposing to require the use of these same factors for determining whether a generating or reclamation process falls within the mineral processing industry. Specifically:

- Operation must follow the beneficiation of an ore or mineral and does not include beneficiation as defined in 40 CFR 261.4(b)(7)(i).
- Operation must serve to remove the desired product from or enhance the characteristics of an ore or mineral or a beneficiated ore or mineral.
- Operation uses feedstock that is comprised of less than 50 percent scrap materials.
- Operation produces either a final or an intermediate to the final mineral product.
- Operation does not combine the mineral product with another material that is not an ore or mineral, or beneficiated ore or mineral (e.g., alloying) and does not involve fabrication or other manufacturing activities.

EPA is proposing to retain this industry classification, rather than deferring to the various NAICS categories, for purposes of implementing the exclusion for primary mineral processing secondary materials recycled within the industry, because it has examined this sector in detail and believes that its current system reflects the boundaries of this industry better than the 4-digit NAICS approach.

For secondary materials that would not be excluded under today's proposed rule, mineral processing facilities may continue to determine whether those materials are exempt from Subtitle C regulation under the Bevill exclusion, section 3001(b)(3)(A)(iii) of RCRA and 40 CFR 261.4(b)(7). They must use currently applicable regulatory provisions, as clarified by the criteria articulated in preamble to the September 1, 1989 **Federal Register** (54 FR 36592). Note that to be excluded under the Bevill Amendment, solid wastes must be uniquely associated with the mineral processing industry. For purposes of today's rule, non-uniquely associated wastes, although not Bevill exempt, are still eligible for today's proposed exclusion if they are generated and reclaimed within the mineral processing industry.

<sup>5</sup> Additional guidance was provided in the Phase IV Land Disposal Restrictions (LDR) preamble (63 FR 28556; May 26, 1998). EPA stated that it views "mineral processing" to include but not be limited to 41 primary mineral processing sectors described in the Agency's 1996 Identification of Mineral Processing Sectors and Waste Streams.

*Petroleum Industry.* EPA has previously promulgated exclusions related to the recycling of oil and oil-bearing hazardous secondary materials. See July 28, 1994 **Federal Register** (59 FR 38536); see also August 6, 1998 **Federal Register** (63 FR 42110). In those rules, EPA identified the various industry sectors related to petroleum (e.g., exploration and production, transportation and storage, refining and marketing, etc.) that collectively were defined as the petroleum industry for purposes of excluding recovered oil, when such oil is returned to the petroleum refinery for insertion. (We note that this particular “intra-industry” exclusion is uni-directional, that is, it is conditioned on the recovered oil being sent from facilities at any point within the industry, back to a petroleum refinery.) In order to avoid any confusion between this existing definition, and the approach being proposed in today’s rule for defining “industry,” we would like to make several clarifications, and request comment on specific questions.

First, we reiterate that in today’s notice we are not proposing to change the definition of petroleum industry as it is used in the exclusions already mentioned, specifically, 40 CFR 261.4(a)(12)<sup>6</sup>. See Section A.III.7. of today’s preamble for additional discussion of conforming changes to the regulatory framework. Second, because the reuse of secondary materials by burning for energy recovery or the manufacture of fuels is not within the scope of today’s proposal (as mentioned elsewhere in today’s preamble and reiterated in the proposed regulatory text) there may not be any overlap between today’s proposed exclusion, and the existing exclusion that utilizes the broad definition of petroleum industry. However, because there may be some hazardous secondary materials that could be generated and legitimately reclaimed in a continuous process within the petroleum industry, in a manner that does not produce a fuel, to avoid confusion we have proposed to define petroleum industry in today’s rule the same way as described in 40 CFR 261.4(a)(12). Therefore, we have added a clarifying provision in proposed Appendix X to effect this departure from using the NAICS.

<sup>6</sup> We note that the exclusion for oil-bearing hazardous secondary materials in 40 CFR 261.4(a)(12)(i) is limited only to refinery-generated materials, returned to a refinery; and the exclusion for recovered oil in 40 CFR 261.4(a)(12)(ii) involves the broader definition of petroleum industry. We are not proposing to change the scope of either exclusion in today’s rule.

We request comment on using the definition of petroleum industry from existing 40 CFR 261.4(a)(12) for hazardous secondary materials that are not already excluded under that same provision, or are reclaimed within the petroleum industry for reasons other than making fuels, in lieu of using the 4-digit NAICS approach. We believe that retaining the existing definition of petroleum industry makes the most sense, because we have already looked closely at the recycling of hazardous secondary materials within the petroleum industry, and have already described in various rulemaking documents the types of activities and operations that comprise these industries. We also request comment on whether or not the definition of industry using the 4-digit NAICS Industry Group 3241 (Petroleum and Coal Products Manufacturing) should instead be used for hazardous secondary materials reclaimed within the petroleum industry for reasons other than making fuels.

*Waste Management and Remediation Services.* We are not including “Waste Management and Remediation Services” (NAICS 562) on the list of industries in Appendix X of today’s proposed rule. We think that this industry is in business to manage waste, and presents different legal and policy issues than do traditional manufacturing industries. Put another way, this type of activity is essentially waste management, as opposed to ongoing manufacturing. We do not think that most materials reclaimed by waste management industries are generated within those industries. On the contrary, we believe that most if not all materials reclaimed in waste management operations are first discarded by another entity that has no further use for them, such as used solvents generated at an automobile repair shop sent to a third-party solvent reclaimer, or lead from spent batteries being reclaimed in a secondary smelter (see *U.S. v. Ilco*, 996 F.2d 1126 (11th Cir. 1993)).

Therefore, we have expressly excluded “Waste Management and Remediation Services” from the scope of today’s proposal. NAICS codes corresponding to these operations do not appear on the list of industries in Appendix X of today’s proposed rule. The NAICS 562 Sub-sector includes the Industry Groups “Waste Collection” (NAICS 5621), “Waste Treatment and Disposal” (NAICS 5622), and “Remediation and Other Waste Management Services” (NAICS 5629).

In addition, we have identified specific activities described within certain NAICS industry categories that

should remain within our Subtitle C jurisdiction under the same logic (that is, they manage materials that have been discarded by another entity that has no further use for them). These are activities that fall within two separate Industry Groups within the Chemical Manufacturing Sector (325). Based upon the NAICS description for these activities, they appear to reclaim secondary materials from facilities that generate them, and unlike the other operations in the same NAICS codes, they do not produce any products made from non-secondary materials, nor do they provide the kinds of services that the other operations provide. Moreover, they are often owned and operated by independent third parties. We are proposing to exclude these activities from the industry classifications as follows:

- 3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing (except for third-party operations that reclaim drycleaning fluids at sites that do not conduct drycleaning).
- 3259 Other Chemical Product and Preparation Manufacturing (except for third-party operations that reclaim degreasing solvents at sites that do not conduct degreasing operations).

Finally, we assume that identifying facilities properly classified under the Waste Management Services NAICS Industry Group should be relatively straightforward, and that such facilities would not be readily confused with facilities that are recycling secondary materials in a continuous process within the generating industry. Generally speaking, where such waste service facilities are stand-alone operations (i.e., are not physically on-site with respect to industrial or manufacturing operations), and it is clear that virtually all materials reclaimed at such facilities are secondary materials received from off-site generators (in one or more industry categories), then reclamation services are quite obviously the principal activity undertaken at the site, and the secondary materials have been discarded by the generators, as discussed above. In addition to excluding facilities with NAICS Codes 5621, 5622, and 5629 from the list of industries in Appendix X as described above, proposed 40 CFR 261.2(g)(2)(iv) makes clear that materials sent to these waste service industries are not excluded from the definition of solid waste under today’s rule.

#### Manufacturing Versus Other NAICS Sectors

Today’s proposed rule is incorporating all of the NAICS



categories into Appendix X, with the exception of the categories described above for mineral processing, petroleum, and waste management services.

However, because we are relying on the NAICS list, which is designed to capture the entire breadth and scope of the U.S. economy, there may be categories on the list that do not generally generate or recycle hazardous secondary materials. Including such industries on the list used in this regulation makes the list rather large and unwieldy. In addition, for some industries, inclusion on the list in Appendix X may create some confusion and concern as to whether we are implying that a particular industry generates hazardous secondary material by virtue of it appearing on this list in the RCRA regulations (which we are not). We believe that the majority of hazardous secondary materials presently being recycled are generated within traditional manufacturing industry sectors (e.g., NAICS Sectors 31–33). For example, it may be more straightforward to limit the list of industries in Appendix X to mining and manufacturing sectors. We are requesting comment on whether the list of industries in Appendix X should be modified, beyond what is being proposed today, based on the knowledge that certain industry categories do not generate hazardous secondary materials or will not engage in reclamation of hazardous secondary materials.

#### How Will the Regulated Community Identify Which NAICS Code Applies for Purposes of This Rule?

The 2002 NAICS Manual contains guidelines for using the system, along with fairly detailed descriptions of the industry categories. Individual NAICS categories contain information, such as examples, to help identify an establishment's industry classification. We are proposing today to require the regulated community to use the existing NAICS guidance (NAICS 2002 Edition) to identify what industry their operations fall within for purposes of today's exclusion from the RCRA definition of solid waste. See paragraph (d) in proposed Appendix X.

The NAICS is a "classification system for establishments." As discussed in more detail below, an establishment is a collection of one or more activities, and under NAICS the establishment is what is classified as a particular industry. The introductory text to the 2002 NAICS Manual states that "The establishment as a statistical unit is defined as the smallest operating entity

for which records provide information on the cost of resources, materials, labor, and capital employed to produce the units of output." Establishment is further clarified in the same text as "generally a single physical location, where business is conducted or where services or industrial operations are performed (for example, a factory, a mill, store, hotel, movie theater, mine, farm, airline terminal, sales office, warehouse, or central administrative office)."<sup>7</sup> In cases where distinctly different and potentially significant activities occur at one location, in determining whether these activities should be classified as a separate establishment, the 2002 NAICS Manual states that an "activity is treated as a separate establishment provided: (1) No one industry description in the classification includes such combined activities; (2) separate reports can be prepared on the number of employees, their wages and salaries, sales or receipts, and expenses; and (3) employment and output are significant for both activities.

Thus, the NAICS system first defines what is an establishment. An establishment is then classified to an industry when its primary activity meets the definition of that industry. In the simplest case, where an establishment consists of one activity, the industry classification for that establishment is that which best describes that single activity. When there are two or more activities, the NAICS Manual describes procedures for identifying the primary activity. The NAICS Manual states:

In most cases, if an establishment is engaged in more than one activity, the industry code is assigned based on the establishment's principal product or group of products produced or distributed, or services rendered. Ideally, the principal good or service should be determined by its relative share of current production costs and capital investment at the establishment. In practice, however, it is often necessary to use other variables such as revenue, shipments, or employment as proxies for measuring significance.<sup>8</sup>

Thus, establishments are classified under NAICS based on the primary activity within that establishment. It should also be pointed out, however, that for certain types of combined activities, the NAICS guidance provides exceptions to this "primary activity" rule approach. For example, vertically-integrated facilities can be described as consecutive stages of production in which the output of one step is the

input to the next. Rather than determining which of these stages of production are the largest (or primary), NAICS would classify this series of activities based on the final process. One example of this is where the NAICS Manual specifies that a physical location with both a Pulp Mill activity and Paper Mill activity, should be classified as a Paper Mill because that is the final stage of production. But there are even exceptions to this, such as where the NAICS Manual specifies that a particular set of vertically-integrated activities should be classified based upon the first stage of the manufacturing process (e.g., a Steel Mill where other activities such as producing Steel Castings occurs, should be classified as a Steel Mill nonetheless). An important point here, other than illustrating how the "primary activity rule" may be superseded by the way in which the NAICS manual defines particular vertically-integrated establishments, is that the NAICS Manual will specify how such an establishment is classified, rather than the owner/operator having to in every case make a judgement (such as determining the primary activity, for example).

Another example of how NAICS may classify certain combined activities, other than via the primary activity rule, is in certain examples of joint production of goods and services. Some establishments may have two activities (e.g., a gasoline station with a convenience store) where the combined activities have been identified in the NAICS as a third, separate industry. Thus, rather than making a determination of which activity (gasoline retail versus convenience store) is primary using receipts/sales and revenue data as a proxy, NAICS provides a category Gasoline Stations with Convenience Stores (NAICS code 44711). In this case, this third category should be used in lieu of determining the "primary activity" for these establishments.

Because today's rule proposes to use the NAICS for classifying establishments (at the 4-digit, or Industry Group level) for determining whether or not the generating industry and the reclaiming industry are the same, the concept of the establishment is important. We are proposing to add a definition of establishment to the RCRA regulations, where establishment means "an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed. An establishment is the smallest such unit for which records provide

<sup>7</sup> NAICS Manual, 2002, p. 21.

<sup>8</sup> NAICS Manual, 2002, p. 22.



information on the cost of resources, materials, labor and capital employed to produce the units of output." The language in this definition follows closely the language in the 2002 NAICS Manual, and is also consistent with the same language EPA used in a separate rulemaking under EPA's Toxic Chemical Release Reporting program (see 40 CFR 372.3). We request comment on our use of this definition for today's proposed rule. (An additional point, the phrase "generally at a single physical location" in the proposed definition of establishment does not mean that under today's proposal, "same industry" is somehow limited only to materials generated and reclaimed on site. As discussed throughout this preamble, today's proposed exclusion can apply to materials sent off site from the generator facility.)

*Multiple Establishments.* Thus far, we have discussed how the NAICS system defines an establishment, and how that establishment is classified to an industry from the 2002 NAICS Manual of industry classifications. We are proposing that hazardous secondary materials, generated at an establishment, are excluded if reclaimed at the same or another establishment, whether on-site or off-site, where the establishment reclaiming the material is classified under the same NAICS (at the 4-digit level) classification as the generating establishment (industry). This approach is relatively straightforward when it involves transactions within and between sites where each site has a single establishment, classified to a particular NAICS industry group. All one needs to know is the correct industry classifications, and then determining whether or not the secondary material is being reclaimed within the generating industry in accordance with today's proposed exclusion should be a straightforward task.

However, some locations will have two or more establishments operating, where these establishments are classified differently from one another under the NAICS. Where there are two or more different industries (establishments) operating at the location where the secondary material is generated, or at the location where the secondary material is reclaimed, the individual establishments that generate and reclaim the secondary materials, respectively, must be classified the same under NAICS, in order to be excluded under today's proposed rule. In other words, where there are multi-industry sites, we look to whether NAICS classifications of the specific

establishments generating and reclaiming the secondary material are the same. We are not suggesting that a particular multi-industry site be classified as a single industry, based for example on some type of determination of the "dominant" or "primary" industry or establishment at that site.<sup>9</sup> In fact, one scenario under today's proposal would be that secondary materials are not considered to be reclaimed in a continuous process within the same industry when sent from one industry to a different industry on the same site. While there may be opportunities for legitimate recycling between two different industries at the same site, for reasons already discussed, we are limiting today's exclusion to a "same industry" approach. Although "inter-industry" recycling is outside the scope of today's proposal, we would be interested in obtaining additional information on specific examples of situations where two different industries (based upon the NAICS definition proposed today) are located at the same site, and where hazardous secondary materials are generated in one industry and could be reclaimed in a different, on-site industry. Again, this type of recycling is outside the scope of today's proposal, but we solicit comment and would be interested in obtaining examples of where this type of recycling might occur.

*Specialty Batch Chemical Manufacturers.* EPA is also aware of certain practices within the chemical manufacturing industry that might present unique situations regarding defining "intra-industry" reclamation using the NAICS approach. Specifically, within the chemical manufacturing industry, larger manufacturers will contract out production of certain chemicals to smaller manufacturers (referred to as batch or tolling operations). These smaller manufacturers produce chemicals in batches, where the product slates may change several times over the course of a year, for example. These smaller

<sup>9</sup>Whereas the NAICS attaches an industry classification to an individual establishment based upon the most significant activity within that establishment (determined using either the "primary" activity rule, or in some other way as discussed for certain establishments with combined activities), the NAICS Manual does not appear to have any type of "primary rule" for identifying the primary industry at multi-industry facilities. However, there is at least one example of where determining the primary industry is required in a different program; the EPA Toxic Release Inventory (TRI) regulations require that a primary establishment, or industry, be identified at multi-establishment complexes. This is in order to determine applicability of the TRI rules, because the TRI rules, because the TRI program applies to some industries and not others. 40 CFR 372.22(b).

manufacturers (often referred to collectively as Specialty Batch Chemical Manufacturers) may generate hazardous secondary materials that could be returned to the larger chemical manufacturer for reclamation along with similar secondary materials (generated by the larger facility from producing the same chemical). To the extent that the NAICS approach proposed today classifies both establishments (the specialty batch establishment, and the larger chemical manufacturing establishment) the same at the 4-digit level, this reclamation would be excluded under today's proposal. As stated above, we would look to whether the NAICS classifications of the specific establishments generating and reclaiming the secondary material are the same. However, we solicit comment on this particular situation, and are interested to know if there are specific examples of where "same industry" reclamation, as outlined under today's proposed rule, would be precluded as a result of uncertain application of the NAICS classification approach at specialty batch chemical facilities (e.g., due to frequently changing product slates, or different products being produced from the same equipment at different times, etc.).

Under today's definition of industry, we are proposing that owners and operators, as well as implementing agencies, rely on the NAICS system to identify establishments and define the bounds of an industry. As our lead approach, we are not proposing to overlay additional criteria to determine whether or not particular reclamation units, processes, or activities are "adequately" associated with an industry so as to be included within the scope of that industry definition. In fact, we believe the NAICS approach simplifies this determination because it generally views establishments as a collection of activities, and provides a consistent system for classifying the collection of activities as an industry. Generally, where reclamation units, processes or activities are located at a particular site, and are supporting the principal activities of that industry in a legitimate fashion, they should be considered part of that establishment (industry) unless the NAICS approach (e.g., industry descriptions or other guidance in the 2002 NAICS Manual) yields a different answer.

For instance, in the example provided in Section III.A.4. above, if a paint manufacturer reclaims used solvents from within the paint manufacturing industry, the used solvents would not be wastes under today's proposed exclusion. If, based upon the NAICS,

this solvent reclamation activity is part of the paint manufacturing process, and thus merely one of several activities comprising an establishment best classified as paint manufacturing under NAICS, then the reclamation activity would be part of the paint manufacturing industry. Alternatively, if the solvent reclamation activity became a centralized solvent reclamation facility for paint manufacturers, then under the NAICS approach the reclamation could ultimately become so significant (*e.g.*, due to the number of employees, or receipts from its activities, etc.) as to be a separate establishment. In that case, the reclamation activity would likely be classified in an industry other than paint manufacturing, and the used solvents would no longer be excluded because they are not being reclaimed in a continuous process within the same industry.

The key point here is that in one instance, the reclamation activity clearly supports paint manufacturing, and is one of several activities in an establishment called paint manufacturing. In the other instance, the reclamation activity has become significant enough to be a separate establishment, and is thus classified based on its own activity, which would be different from the activity of the establishment (paint manufacture) it serves in this example. Classifying establishments based on their own activity, rather than the activity of the establishment being served, is consistent with the way in which the NAICS is intended to operate in situations involving "auxiliary" establishments.<sup>10</sup>

While we believe the NAICS appears to offer a clear, consistent, and familiar way to classify establishments for purposes of today's rule, we acknowledge that there may be some situations where this system might not provide definitive, "bright line" answers. As discussed above, a reclamation process could expand to a point where such a "sideline" reclamation process would rightly be considered significant enough to be a separate establishment, and a different industry, for the purpose of this rule. The reclamation establishment likely would then be classified as a waste management industry.

<sup>10</sup> Under the SIC, establishments that primarily provided services to manufacturing establishments were classified based on the establishment being served: NAICS changed this to emphasize that each establishment should be classified based upon what the establishment does. (See NAICS Clarification Memorandum No. 3 in docket to today's proposed rulemaking.)

As stated above, the 2002 NAICS Manual contains guidance to help identify whether a particular activity can be defined as a separate establishment, in situations where there are other activities occurring at the same location.<sup>11</sup> However, our concern is whether this guidance is sufficient for determining more precisely when "sideline" reclamation systems would become "significant" enough to be considered separate establishments. Today's proposal would help resolve such issues for certain types of on-site reclamation processes. First, under proposed 40 CFR 261.2(g)(2)(v), if there is still some question (after consulting the 2002 NAICS Manual) as to the correct classification of a particular reclamation unit, process, or activity, we are proposing that with respect to hazardous secondary materials generated and reclaimed on site (as defined in 40 CFR 260.10), the on-site reclamation unit, process, or activity be considered part of the generating industry with which it is associated. This proposed provision reflects the idea that the scale or "significance" of on-site reclamation processes should be less relevant for the purpose of this rule when only materials that are generated on-site are involved.

The issue of when an on-site reclamation process would be significant enough to be considered a separate establishment under NAICS is more complex when the process also reclaims hazardous secondary materials generated off-site. Facilities that decide to accept such secondary materials from off-site for reclamation need to know at what point such reclamation processes would be considered separate establishments. In the paint manufacturer example discussed above, a risk-averse facility manager might unnecessarily restrict his or her reclamation activity. We believe that it may be advisable in the final rule to provide some more specific means of determining when such sideline reclamation processes would be significant enough to be considered separate establishments and, therefore, separate (and different) industries.

In order to clarify when a sideline operation becomes a waste management operation, EPA could identify several relevant criteria for facilities and regulators to evaluate. One of the criteria could be how much secondary

<sup>11</sup> These are (1) No one industry description in the classification includes such combined activities; (2) separate reports can be prepared on the number of employees, their wages and salaries, sales or receipts, and expenses; and (3) employment and output are significant for both activities. NAICS Manual, 2002, pp. 21–22.

material from off-site is being reclaimed in the process. For example, the regulation could specify that an on-site reclamation process should be a separate establishment if more than 50% of the material reclaimed originates from off-site. Some different percentage (*e.g.*, 25% or 75%) could also be appropriate for this purpose. Another criterion could be based on how much of the facility's revenue (*e.g.*, more than 50%) is generated from reclaiming material from off-site. Another criterion might be based on the number of off-site generators (*e.g.*, more than five) that supply secondary material to the reclamation process. The Agency requests comment on the need for additional regulatory clarification to determine when such sideline reclamation processes would be significant enough to be considered separate establishments, particularly where reclamation processes take materials from off-site generators. We also request comment on the specific options outlined above for addressing this issue.

We point out that elsewhere in today's preamble, we discuss co-proposing two options as part of defining what is a "continuous process within the generating industry." (See Section III.A.4. above, where under one option we propose that hazardous secondary materials that are generated and reclaimed in a continuous process within the same industry would not be eligible for today's exclusion, if the reclamation takes place at a facility that also recycles regulated hazardous wastes generated in a different industry.) However, here in this section we are requesting comment on possible ways to more clearly define industry, or more specifically, establishment, particularly where there are materials being received and reclaimed from off-site sources. While these two aspects of today's proposal address similar issues (*e.g.*, improving clarity, and identifying reclamation outside the scope of today's proposal), we emphasize that here we are asking for comment on possible criteria for further defining establishment, which would conceivably apply under either of the co-proposed options described in section III.A.4.

EPA also requests comment on using the existing 2002 NAICS Manual for implementing the definition of industry under today's rule, and specifically as it is incorporated into the industry categories and definitions in the newly proposed Appendix X. We anticipate that for most locations, in most cases, the NAICS classification system described in the 2002 NAICS Manual,

summarized above, will serve the purpose of a clear and consistent definition of industry.

#### Regulatory Option for On-Site Recycling

As explained in the preceding discussion, today's proposed exclusion would only be available for materials recycled within the same industry in which they are generated, and we are proposing to use the NAICS system as the primary means of identifying and classifying the industries associated with generation and reclamation of recyclable materials. However, as discussed above, we acknowledge that our proposed approach may have certain drawbacks, particularly with regard to situations where the recycling activities all occur on-site. For example, we expect there will be numerous facilities that will have two or more establishments that would be classified as separate industries according to the NAICS system (e.g., a facility that produces petrochemicals as well as pharmaceuticals). As proposed today, materials would not be excluded if the generating and reclaiming establishments were in different industries according to NAICS, even if both establishments were situated at the same site and operated by the same company. In a somewhat different example, a large manufacturer such as an integrated steel production plant may find it advantageous to have a separate, specialized company operate a dedicated reclamation process at the plant site. Under the NAICS system, that reclamation process would likely not be classified as part of the steel making industry, since it could be viewed as a distinct, separate economic unit. We also acknowledge that for large, integrated facilities it could be difficult using the NAICS guidance to easily classify processes that may produce different types of outputs, but are physically or operationally linked. Finally, as discussed previously, a specific unit or process at a facility may be flexibly designed to produce a variety of outputs, and its NAICS classification might thus change relatively often, depending on which products are being produced at any given time.

In developing today's proposal, several stakeholders suggested that an exclusion for on-site recycling could be a more practical and simpler approach to encouraging legitimate recycling while maintaining environmental protections. The Agency believes that such an option may have merit, and in light of the potential difficulties in making clear, definitive NAICS classifications at more complex facilities, we are considering a

regulatory option that could simplify implementation of today's proposed exclusion in situations where materials are all generated and reclaimed in a continuous process on-site.<sup>12</sup> Under this option, the NAICS system would be used to classify generating and reclaiming industries that are located at different sites, consistent with today's proposal. However, materials that are generated and reclaimed in a continuous process at the same site would be excluded, regardless of whether different industries were involved. This option would also involve the same notification requirements that would apply to off-site, intra-industry recycling excluded under today's proposal.

It should be noted that such an on-site recycling exclusion would not be based on the direction of the D.C. Circuit Court (in the opinions discussed in section II.D of this preamble), but rather would rest on the premise that materials recycled on-site in a continuous process are unlikely to be discarded because they would be closely managed and monitored by a single entity who is intimately familiar with both the generation and reclamation of the material, no off-site transport of the material (with its attendant risks) would occur, and there would be few questions as to potential liability in the event of mismanagement or mishap.

We believe that this regulatory option would have the advantage of being somewhat more straightforward to implement, both for industry and regulators, by avoiding many of the uncertainties and complexities of using the NAICS system, particularly at larger facilities. We also believe that it would likely encourage more legitimate recycling than would occur under today's proposed regulatory framework for intra-industry recycling. We request comment on this regulatory option.

#### 7. How Is EPA Proposing to Define "Continuous Process?"

##### What Is a "Continuous Process?"

As explained above, we are proposing today to define "discard" for Subtitle C purposes in the context of the opinions of the D.C. Circuit pertaining to the definition of solid waste. EPA is proposing to exclude from the Subtitle C definition of "solid waste" materials recycled in a continuous process within the generating industry. In this section of the preamble, we propose that generation and reclamation of materials would take place in a "continuous process" only if the materials are

handled exclusively by facilities or entities (except for transporters) that are within the generating industry, and the materials are not "speculatively accumulated" as defined in 40 CFR 261.1(c)(8).

Today's proposed definition for continuous process would not allow a generator to ship excluded materials to a broker or other middleman before it is received at a reclamation facility. While middlemen such as brokers are often better able to find markets for recyclable secondary materials, and thus can facilitate their beneficial reuse, we do not believe that such arrangements are consistent with the idea of recycling in a "continuous process." Brokers do not manufacture the same goods or provide the same type of services as the entities which generate the secondary materials. We do not regard them as falling within the same industry as the generators. Moreover, often a generator who consigns materials to a broker does not know where or how the material will be reclaimed. This suggests that these generators are more likely to be "finished" with a material and to be willing to let the material go to a different industry for reclamation. We also note that brokers have been associated with releases requiring cleanups, though we have not compiled definitive data on any such recent damage cases. In sum, we regard the use of brokers as a significant discontinuity in the use of a secondary material, although we request comment on this issue. Today's proposal would, however, allow the use of independent transporters (who typically would not be in the same industry that generated the secondary material) to ship excluded materials from one facility to another, as long as each facility is within the generating industry.

In addition to requiring materials to be shipped directly between generator and reclaimer, we believe that a continuous process requires some limitations on the timing of the activities in question; *i.e.*, how soon a material is reclaimed and reused after being generated. Obviously, if a secondary material is generated but never reclaimed and reused it must be considered a waste. On the other hand, if a material is generated and subsequently reclaimed and reused more or less immediately (e.g., within a few hours or days), it might easily be concluded that such recycling takes place in a "continuous process."

To address this timing aspect in defining continuous process, we are proposing to use RCRA's existing "speculative accumulation" provisions (see 40 CFR 261.1(c)(8)) to distinguish

<sup>12</sup> "On-site" is defined for RCRA Subtitle C purposes in 40 CFR 260.10.

between processes that are continuous and those that are not. Under this existing rule, a material is accumulated speculatively if the person accumulating it cannot show that the material is potentially recyclable and has a feasible means of being recycled. More importantly for the purpose of this proposal, the person accumulating the material must show that during a calendar year (beginning January 1) the amount of material that is recycled, or transferred to a different site for recycling, must equal at least 75 percent by weight or volume of the amount of that material at the beginning of the period. This provision already applies to secondary materials not otherwise considered to be wastes when recycled, such as materials used as ingredients or commercial product substitutes, materials that are recycled in a closed-loop production process, or unlisted sludges and byproducts being reclaimed. These restrictions on speculative accumulation have been an important element of the RCRA recycling regulations since they were promulgated on January 4, 1985.

EPA believes that using the existing regulatory provisions for speculative accumulation as the time limit for defining "continuous process" in this rule is consistent with the D.C. Circuit Court's direction, and fits well within the existing regulatory structure for hazardous waste recycling. In the ABR decision, the Court suggested that temporary storage of secondary materials prior to reclamation may be a necessary phase in the overall reclamation process. However, in that decision the court did not suggest a particular time limit beyond which accumulation of materials could no longer be considered part of a continuous process.

For most types of recycling that are excluded from regulation under RCRA, the existing speculative accumulation provisions serve to define the point at which potentially recyclable secondary materials nevertheless become solid and hazardous wastes. As an example, secondary materials that can be directly used or reused without reclamation are not considered wastes, as long as they are not speculatively accumulated. Today's rule is consistent with this regulatory approach, in that it applies the same logic and limitations to storage of materials prior to recycling. We see no compelling reason why the speculative accumulation provisions should not serve the same purpose for recycling that would be excluded under today's proposal, and recycling that is excluded under other, existing regulatory provisions.

With regard to implementing the existing restrictions on speculative accumulation, persons accumulating secondary materials are required to demonstrate that they are recycling materials in the amounts specified in 40 CFR 261.1(c)(8). Making such demonstrations will generally require such persons to provide appropriate documentation to substantiate their claims, as specified in existing 40 CFR 261.2(f). In the preamble to the final speculative accumulation rule (50 FR 636, January 4, 1985), the Agency discussed certain types of documentation that would be appropriate in making satisfactory demonstrations, such as customarily maintained data on industrial process throughputs, and bills of lading for shipments sent off-site to a recycler. Other such documentation could include records identifying the recyclers receiving the secondary materials, or contracts and correspondence with a recycler.

The Agency believes that today's proposed definition of "continuous process" is consistent with the direction in the D.C. Circuit Court's opinions. Thus, this definition, as it fits within the broader context of today's proposed exclusion, should help to ensure that materials that would be excluded from regulation under today's proposal will not be discarded, and therefore do not need to be regulated as wastes under Subtitle C.

#### What Alternatives Did EPA Consider for Defining "Continuous Process?"

EPA considered several alternative approaches to placing time limits on "continuous process" in this proposed rule. One such alternative was to establish a limit of 90 days for accumulation of recyclable materials as the maximum time limit for a "continuous process." This would in some ways be consistent with the current time limit for accumulation of hazardous wastes by large quantity generators that do not have RCRA permits. Another alternative could be to establish a somewhat longer limit, such as 180 days (this alternative has some support in the decision of the U.S. Court of Appeals for the Fourth Circuit in *Owen Electric Steel Co. v. Browner*, 37 F. 3d 146 (4th Cir. 1994)). This is also the allowable accumulation time for small quantity generators that do not have RCRA permits.

Establishing a specific time limit in this rule (such as 90 or 180 days) to define "continuous process" could be coupled with a provision that would allow generators to exceed such time limits (for example, up to one-year) in

cases where they could demonstrate that recycling of the materials would be done within the extended time frame.

EPA chose not to set such stricter time limits to define "continuous process," largely because we believe that using the speculative accumulation provisions is more consistent with the current regulatory framework for recycling, and is familiar to the regulated community. It represents EPA's longstanding judgment that materials recycled within the one calendar year timeframe are in continuous use, and therefore are not discarded. Moreover, EPA is concerned that it might be difficult to select a shorter time limit that would be appropriate to the wide variety of materials and industries covered by this rule. This approach also offers greater flexibility for generators and reclaimers to optimize recycling opportunities. Shorter time limits could discourage some promising recycling opportunities, particularly in industries that tend to generate recyclable secondary materials episodically, as is often the case with (for example) specialty batch chemical manufacturers.

The Agency is aware, however, that there may be some potential complications with using the speculative accumulation time limit to define "continuous process." For one thing, establishing how long specific secondary materials have been stored at a generator's facility can be difficult for regulatory agencies, particularly since there are no explicit record keeping requirements in the regulations for speculative accumulation. Although we are not proposing today to modify the current regulations for speculative accumulation, we solicit comment as to whether those regulations should be strengthened as they would apply specifically to today's proposed exclusion, or perhaps more generally. Specifically, we request comment on the idea of requiring generators and off-site recyclers to maintain records that would serve to establish when specific volumes of materials were generated, and when they were recycled. EPA believes that such record keeping requirements might assist inspectors from regulatory agencies to verify that secondary materials stored for recycling are actually being reclaimed on a regular basis, rather than accumulating in increasing volumes over months and years. We also believe that such record keeping would likely impose a minimal burden on generators, since we understand that maintaining such records of inputs and outputs, and bills of lading for off-site shipments, is a standard business practice.

In addition to requiring direct transfer of excluded materials from generators to reclaimers, and using the speculative accumulation concept to establish a time limit on storage of such materials, we considered whether there are other aspects of "continuous process" that we should attempt to capture in defining the term. For example, it could be argued that inherent in the concept of "continuous process" is the idea of regularity or predictability; *i.e.*, that the generation and subsequent reclamation of materials should take place in a more or less routine, ongoing manner. It might be further argued that the term "continuous process" implies some kind of physical linkage between the processes that generate specific secondary materials and the processes that reclaim them. Similarly, some might say that some type of geographic limit should also be imposed, such that (for example) materials shipped from New Jersey to California might not be considered within a continuous process, even if they remained within the same industry.

EPA chose not to impose further tests or requirements in defining continuous process, beyond the limits established for speculative accumulation. For one thing, we believe that placing additional restrictions on what we would consider to be a continuous process for the purpose of this rule could create additional complexity in its implementation. Such additional restrictions might also be somewhat arbitrary, since it would be difficult to develop restrictions appropriate to the wide range of materials and processes potentially covered by this rule. Such an approach could also discourage beneficial recycling in some industries where generation and reclamation of secondary materials happen in a less than routine, predictable manner. We are interested, however, in receiving comments on this issue, particularly any specific suggestions as to how today's proposed definition of continuous process could be refined or enhanced, and the benefits that such changes would bring.

#### 8. What Type of Notification Would Be Required?

Today's proposal would require generators who wish to use the 40 CFR 261.2(g) exclusion to submit a one-time notice to EPA or the authorized state. As specified in 40 CFR 261.2(g)(3), the notice would need to identify the name, address and EPA ID number (if applicable) of the generating facility, the name and telephone number of a contact person for that facility, the type of material(s) that would be subject to

the exclusion, and the industry that generated the material, as classified according to Appendix X of Part 261.

This notice requirement would only apply to generators of secondary materials that have previously been regulated under RCRA Subtitle C, and that would become excluded under today's proposal. Thus, generators of materials that have been previously exempted or excluded from regulation under other provisions because they are recycled would not need to submit a one-time notice. If a generator were to generate both types of materials (*i.e.*, materials that were previously regulated, as well as materials that were previously excluded or exempted under different provisions), the generator would have to submit a one-time notice only for the materials that were previously regulated.

As discussed in the following section of this preamble, we are proposing today to modify or eliminate existing exemptions and exclusions that "overlap" with the proposed 40 CFR 261.2(g) exclusion. Thus, materials that heretofore have not been subject to regulation under existing provisions would remain unregulated, but would be subject to the new exclusion. It should be noted that, with few exceptions, the current regulations do not require generators of excluded materials to notify EPA or authorized state agencies. Requiring these generators to submit one-time notices once they become subject to the new 40 CFR 261.2(g) exclusion would in effect be a more stringent requirement. Since today's proposal is intended to be generally de-regulatory, we do not believe it appropriate to impose such a new notice requirement on generators who have not been required to submit such notices under the current regulations.

To illustrate, generators of secondary materials that (for example) are recycled in a "closed loop" system have been excluded from regulation under 40 CFR 261.2(e)(iii), and have not heretofore been required to notify the Agency of their recycling activities. Since we assume that closed loop recycling is intra-industry, today's proposal would subsume and eliminate the existing closed loop exclusion, and the materials would become subject to today's proposed exclusion. These generators would not need to submit the one-time notice required under proposed 40 CFR 261.2(g)(4). However, if a generator has been recycling regulated hazardous wastes that would become newly excluded under today's proposal, he/she would need to submit the notice.

The Agency is not proposing any specific format or form for these one-time notices. However, to provide one idea of how such a notice might be formatted, we have included a sample form in the docket for today's rule (*see Sample Notification Form for Materials that are Excluded from the Definition of Solid Waste Under 40 CFR 261.2(g)*). This sample form is also available on the web site that EPA has established for this rulemaking.

The intent of today's proposed notification requirement is to provide basic information to regulatory agencies as to who would be managing hazardous secondary materials under the terms of today's exclusion, and the types of materials being recycled. We believe our right to require such basic notification is inherent in our authority to regulate discarded materials, and we consider this to be the minimum information needed to enable credible oversight of such activities, and ensure that the terms of the exclusion are being met by generators and recyclers. As such, we believe that this minimal notification is a reasonable requirement for those who will find advantage in the regulatory exclusion proposed today. We estimate that this requirement will impose an incremental reporting "burden" of approximately one hour per affected facility.

It should be understood that as proposed, providing this notification would not be required more than once. We are also requesting comment, however, on an alternative option for such notification. Under this alternative, generators would be required to submit revised notices if certain information on the original notice were to change. Requiring submission of revised notices might particularly be appropriate, for example, if the location or ownership of the generating facility changes or if the type of excluded material were to change.

Another option being considered with regard to reporting would be a requirement that notifications be signed by a responsible corporate official. In addition, we are considering the option of requiring persons using the 40 CFR 261.2(g) exclusion to submit periodic (*e.g.*, annual) reports detailing their recycling activities, to provide information on the types and volumes of materials recycled, where off-site shipments were sent, the types of reclamation processes used, the types of products produced from the reclamation processes, how residuals from reclamation processes were managed, and other relevant information. Requiring such additional information could give regulators and the public a

much clearer picture of the types of recycling being conducted under this exclusion, where it is being done, and by whom. We are also considering (and solicit comment on) the option of requiring the information in the proposed notice to be submitted in a particular format (such as in the sample form cited above), or submitted electronically.

**Recordkeeping.** Section 261.2(f) requires persons managing materials under exclusions from the Subtitle C definition of solid waste to be able to provide "appropriate documentation" that they meet the terms of the exclusion they are claiming. Nevertheless, in addition to the notification requirements discussed above, we are considering the option of requiring generators and reclaimers to keep on-site records relating to types and volumes of materials they handle. For example, we are considering requiring generators of materials subject to this exclusion to keep records of volumes generated, volumes reclaimed onsite, and volumes sent offsite, while requiring offsite reclaimers to keep records of shipments received and volumes actually recycled.

The Agency chose not to include more frequent or more detailed reporting requirements in today's proposal such as those discussed above, primarily because we are committed to minimizing recordkeeping and reporting requirements. In fact, the Agency recently proposed a "burden reduction" rule that would eliminate a number of existing RCRA reporting and record keeping requirements that the Agency believes are unnecessary or duplicative (67 FR 2517, January 17, 2002).

We invite comment on whether or not any (or all) of the regulatory options discussed above for increased reporting and recordkeeping by generators and other parties may be necessary and appropriate in providing sufficient data for regulatory oversight, and should therefore be included in the final rule.

#### 9. What Conforming Changes to Existing Regulations Are Proposed?

As discussed above, today's proposed exclusion for intra-industry recycling would affect a number of existing regulatory provisions that also provide regulatory relief for hazardous secondary materials that are recycled. We are therefore proposing a number of specific "conforming changes" to the existing regulations to address these situations where today's proposed regulatory exclusion "overlaps" with existing regulatory provisions. Since we are co-proposing two different options for defining "continuous process within

the same industry" (see section III.A.3 of this preamble), the conforming changes that would be necessary would differ depending on which option is adopted in the final rule. The following is an explanation of our proposed conforming changes for each regulatory option.

A. Proposed conforming changes for co-proposed regulatory Option #1—Provisions that would be deleted. Under regulatory Option #1, several existing regulatory provisions that provide waivers or exclusions for recycled hazardous secondary materials would be rendered entirely moot, since all of the materials that are potentially subject to these provisions would be excluded under today's proposal for intra-industry recycling. To illustrate, 40 CFR 261.4(a)(6) currently provides an exclusion from the definition of solid waste for "pulping liquors \* \* \* that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively." Under proposed Option #1 this existing exclusion would no longer be needed, since we believe that the exclusion for intra-industry recycling would cover all of the pulping liquors that are currently excluded under 40 CFR 261.4(a)(6).

The following is a list of existing provisions that would be eliminated entirely under today's co-proposed Option #1. We believe that each of these provisions would completely overlap with the Option #1 exclusion, and we are thus proposing to delete them entirely if the Agency decides to finalize this option.

A. Section 261.2(e)(1)(iii). Under this existing provision, materials are not solid wastes when they are recycled by being "returned to the original process from which they are generated, without first being reclaimed or land disposed." We are proposing to eliminate this provision, since we believe that all of the materials that it potentially applies to would be addressed by today's proposed exclusion (Option #1) for intra-industry recycling.

B. Section 261.4(a)(6). This existing provision excludes from the definition of solid waste "pulping liquors (*i.e.*, black liquors) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively." We believe that all of the materials excluded under this current provision would be excluded under 40 CFR 261.2(g) (Option #1), and are therefore proposing to eliminate this provision.

C. Section 261.4(a)(8). This existing "conditional exclusion" is for "secondary materials that are reclaimed

and returned to the original process or processes in which they were generated where they are reused in the production process." This is often referred to as the "closed loop reclamation" exclusion. The following conditions apply to this exclusion:

- Only tank storage may be involved, and the entire process through completion of reclamation must be closed by being entirely connected with pipes or other comparable closed means of conveyance;
- Reclamation must not involve controlled flame combustion;
- The secondary materials must not be accumulated in tanks for over twelve months without being reclaimed; and
- The reclaimed material must not be used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

This conditional exclusion would no longer be necessary if the exclusion in today's proposed Option #1 were promulgated, and we are thus proposing to eliminate it. In fact, such closed loop recycling processes may be particularly clear examples of intra-industry recycling that does not involve discard, and that would therefore be covered under the proposal.

#### 2. Exclusions and Variances That Would Be Partially Affected by Today's Co-proposed Option #1

In addition to the existing regulatory provisions that could be eliminated completely under today's proposed Option #1, we are proposing conforming changes to several other provisions that would only partially "overlap" with the 40 CFR 261.2(g) exclusion. Most of these existing exclusions and exemptions are not contingent on intra-industry recycling, and allow secondary materials to be generated and reclaimed in different industries. Thus, in cases where materials are generated and reclaimed in different industries, the existing exclusions would still be needed to provide regulatory relief for such materials. Accordingly, EPA is proposing to retain existing exclusions and waivers that allow for recycling across different industries, while clarifying that the proposed 40 CFR 261.2(g) exclusion will apply to materials that are recycled in a continuous process within the same industry. These existing provisions are in some cases conditioned on compliance with certain management practices and/or notification or record keeping requirements; we are not proposing to modify the substance of these provisions. Rather, in each case we are simply proposing to add regulatory language to clarify that the

existing exemptions and exclusions will be somewhat narrower in scope, and the exclusion for intra-industry recycling may instead apply to some materials previously subject to the existing provisions.

The following is a brief description of existing exclusions and variances that would likely apply to a smaller universe of materials if today's proposed Option #1 exclusion were promulgated, and for which we are proposing clarifying conforming changes:

A. Conforming change to 40 CFR 261.4(a)(9). This existing conditional exclusion is for "spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose," and "wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood." The conditions for this exclusion, which are prescribed in more detail in 40 CFR 261.4(a)(9)(iii)(A)–(E), are as follows:

- The excluded materials must be reused on-site for their original intended purpose;
- Prior to reuse, the excluded materials must be managed to prevent releases to land or groundwater;
- Units managing excluded materials must be readily determined to be preventing such releases;
- Drip pads used to manage excluded materials must comply with the standards for drip pads in Subpart W of 40 CFR Part 265; and
- A one-time notice must be submitted by the facility owner/operator to the appropriate regulatory agency.

Some of these wood preserving solutions would actually be eligible for today's proposed exclusion, and some would not. Thus, the existing exclusion would need to be maintained in order for some of these materials to continue to be managed outside the Subtitle C regulatory system. The reason these materials would not be eligible for today's proposed 40 CFR 261.2(g) exclusion is because the product of the recycling process (treated lumber) is often used in "a manner constituting disposal" (*i.e.*, the treated lumber is used in or on the land, such as for landscaping timbers, fenceposts, railroad ties, etc.). As explained in previous sections of this preamble, this is one of the specific types of recycling that the Agency believes should remain regulated, even if the recycling is conducted intra-industry.

It is possible, of course, that in some cases lumber treated with recycled spent wood preserving solutions would not be used in a manner constituting disposal. In these cases the new exclusion for intra-industry recycling

would apply. Thus, both exclusions are needed for this particular recycling practice. For the purpose of clarity, we are proposing today to add a new paragraph (F) to the current 40 CFR 261.4(a)(9) exclusion, which would read as follows: "If the products of this recycling practice are not used in a manner constituting disposal, the spent wood preserving solutions are subject to the exclusion in 40 CFR 261.2(g), rather than this paragraph, provided the wood preserving solutions are generated and reclaimed in a continuous process within the same industry."

B. Conforming change to 40 CFR 261.4(a)(17). EPA is proposing to revise the existing conditional exclusion at 40 CFR 261.4(a)(17) to conform with today's proposal. Currently, 40 CFR 261.4(a)(17) excludes from the definition of solid waste "spent materials \* \* \* generated within the primary mineral processing industry from which minerals, acids, cyanide, water or other values are recovered by mineral processing or by beneficiation." Under today's proposal, spent materials from mineral processing that are subsequently reclaimed within the mineral processing industry would not be solid wastes for purposes of Subtitle C. We are therefore proposing to delete the reference to mineral processing in the existing exclusion, since it would no longer be needed for those materials. However, "beneficiation" is not included within the "mineral processing industry" and, therefore, the existing exclusion as it pertains specifically to beneficiation would still be necessary and would remain in effect.

C. Conforming change to 40 CFR 260.30(b), and the associated criteria in 260.31(b). Current 40 CFR 260.30(b) allows variances to be granted on a case-by-case basis for materials that are "reclaimed and then reused within the original production process in which they were generated." This provision is sometimes known as the "closed loop reclamation" variance. The standards and criteria for granting such variances are specified in 40 CFR 260.31(b). This provision is not, however, limited to intra-industry recycling—there may be situations in which a generator of a secondary material could arrange for reclamation of the material by a reclaimer in a different industry (*e.g.*, the waste management industry). We therefore intend to maintain this existing variance to address such situations. We are proposing, however, to clarify its applicability by adding the following language: "If the materials are reclaimed as part of a continuous process within the generating industry,

they are subject to the exclusion in 40 CFR 261.2(g) rather than the standards and criteria listed in 40 CFR 260.31(b)."

D. 40 CFR 260.30(c), and the associated criteria in 40 CFR 260.31(c). Under this existing provision, a variance from being classified as a solid waste can be obtained on a case-by-case basis for materials that "have been reclaimed but must be reclaimed further before the materials are completely recovered." This is commonly referred to as the "partially reclaimed" variance. Since this type of recycling may occur within the same industry or between two or more different industries (similar to 40 CFR 260.30(b), discussed above), we are proposing to add the following language as a conforming change: "If the materials are reclaimed as part of a continuous process within the generating industry, they are subject to the exclusion in 40 CFR 261.2(g) rather than the standards and criteria listed in 40 CFR 261.31(c)."

E. Section 261.4(a)(7). This provision excludes from the definition of solid waste "spent sulfuric acid used to produce virgin sulfuric acid," unless it is accumulated speculatively. To address situations where this type of recycling occurs in a continuous process within the same industry, we are proposing to add the following language as a conforming change to 40 CFR 261.4(a)(7): "Spent sulfuric acid that is reclaimed to produce virgin sulfuric acid in a continuous process within the generating industry is subject to the exclusion in 40 CFR 261.2(g), rather than this paragraph." Similar language is proposed to be added as a conforming change to each of the following provisions (F through J, below) that would be partially affected by today's proposed rule:

F. Section 261.4(a)(10). This is a conditional exclusion for certain types of hazardous wastes that are recycled to coke ovens or to produce coal tar.

G. Section 261.4(a)(11). This conditional exclusion applies to non-wastewater splash condenser dross residue from treatment of K061 in high-temperature metals recovery (HTMR) units.

H. Section 261.4(a)(13). This exclusion is for certain scrap metal being recycled.

I. Section 261.4(a)(14). This provides a conditional exclusion for shredded circuit boards being recycled.

J. Section 261.4(a)(19). This is a conditional exclusion for "spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid."

The Agency solicits comment on these proposed conforming changes.



### 3. Proposed Conforming Changes for Co-proposed Regulatory Option #2

As explained above, under co-proposed Option #1 some existing regulatory waivers and exclusions would be rendered moot, since all of the materials addressed by those provisions would also be covered under the proposed 40 CFR 261.2(g) exclusion. However, this would not be the case under Option #2, since a recycler of these currently unregulated materials would be ineligible for today's proposed exclusion if the recycling facility also managed regulated hazardous wastes generated from a different industry. To illustrate, a recycler handling pulping liquors that are currently excluded from regulation under 40 CFR 261.4(a)(6) would not be able to use the 40 CFR 261.2(g) exclusion if he/she also were recycling hazardous wastes from a different industry. Thus, under this option we would need to maintain the existing 40 CFR 261.4(a)(6) exclusion in order to avoid changing the coverage of the existing exclusion.

If the Agency chooses to adopt Option #2 in the final rule, we are proposing that the four existing provisions which would be rendered moot and deleted under Option #1 (these are discussed above in section III.A.7.a of this preamble) would be retained, but would be amended so that they would remain effective for recyclers that would not be eligible for the 40 CFR 261.2(g) exclusion. For example, the current 40 CFR 261.4(a)(6) exclusion for pulping liquors would be retained, but would be amended to add the following sentence: "Pulping liquors that are reclaimed as part of a continuous process within the generating industry are subject to the exclusion in 40 CFR 261.2(g) rather than this paragraph." The other three provisions that would otherwise be eliminated completely under Option #1 would be amended similarly if Option #2 were promulgated in the final rule.

In the above discussion of conforming changes for co-proposed Option #1, we identify a number of existing provisions that would be only partially affected by today's proposed exclusion, and we are proposing to add text to each provision specifying that if the materials are reclaimed as part of a continuous process within the generating industry they would be subject to the exclusion in 40 CFR 261.2(g), rather than the existing provision. Under Option #2, these provisions would also be only partially affected. We are thus proposing to make the same conforming changes to those provisions in the final rule if we choose to adopt Option #2 to define

"continuous process within the generating industry."

EPA invites comment on the proposed conforming changes described above, for both regulatory options.

### 4. Used Oil Regulations—40 CFR Part 279

This part contains management standards for used oil, including used oil that is recycled. Used oil is a solid waste under RCRA. Because EPA promulgated these provisions pursuant to a specific Congressional mandate governing used oil (*i.e.*, section 3014 of RCRA, as amended by the Used Oil Recycling Act of 1980), they will not be affected by today's proposed 40 CFR 261.2(g).

### 10. How Would the Proposal Be Implemented and Enforced?

*Implementation.* Since the exclusion from the definition of solid waste in today's proposal is de-regulatory in nature, implementing the rule as proposed may have important consequences at certain facilities where recycling activities are currently regulated under RCRA, but would no longer be regulated if this rule were promulgated and became effective.

One key issue has to do with the effects of the rule on facilities that currently have RCRA permits or interim status, and are managing hazardous wastes that would become excluded under this rule. Under one scenario, a facility that manages a variety of hazardous waste materials, including some that become excluded under this rule, would be affected only to the extent that certain units or processes at the facility would no longer be subject to hazardous waste regulations. A somewhat different scenario could involve a facility whose hazardous wastes would all become excluded from regulation when this rule takes effect (*i.e.*, the facility is no longer a hazardous waste management facility).

For permitted facilities that would be managing hazardous secondary materials excluded under this rule in addition to regulated hazardous wastes, some changes to the facility's permit would likely need to be made, though they may be relatively minor. These facilities would need to maintain their permits, but the units used solely to manage excluded materials would no longer need to be subject to permit conditions. In such cases, the facility owner/operator could seek a permit modification from EPA or the authorized state agency to remove the formerly subject unit(s) from the permit.

A permitted facility that would no longer be considered a hazardous waste

management facility under the exclusion (*e.g.*, a facility managing only hazardous secondary materials that become excluded under today's proposal) would no longer need a hazardous waste operating permit. Owner/operators of such facilities could therefore apply to the overseeing agency to have the facility's permit terminated. However, where such a facility has not yet completed facility-wide corrective action (*see* 40 CFR 264.101), the obligation to conduct such cleanup would remain in effect. Therefore, in such cases, the permit would not be terminated, but could be modified to remove the requirements that applied to the now-excluded material, and maintain the corrective action provisions of the permit. In such a case, the facility would thereafter have a Corrective action-only permit that would expire only when facility-wide corrective action is determined to be complete. It should be noted that for facilities in these situations, EPA or an authorized state might also choose to address a facility's cleanup obligations under an alternative Federal or State enforcement mechanism that may be available, rather than continuing to pursue corrective action under a permit.

A facility that is operating under RCRA interim status would be affected by promulgation of today's proposed rule in much the same way as permitted facilities, and the issue of corrective action would be addressed in a similar manner. For an interim status facility managing only materials that become excluded under today's proposal, the part 265 interim status standards that applied to the hazardous waste management units at the facility, as well as the general facility standards in part 265, would be moot and no longer in effect. Under RCRA regulations, however, cessation of hazardous waste operations alone does not eliminate a facility's interim status. *See* 40 CFR 270.73. A facility that wishes to no longer be in interim status could seek a denial of its pending permit application. Since the Agency believes it appropriate to ensure that corrective action is addressed prior to denying a permit under these circumstances, we would expect to grant the denial only when we concluded that the facility's corrective action obligations have been satisfied.

In addition to the above described issues relating to permits and corrective action, today's proposed rule may also have implications with regard to closure of hazardous waste storage units at affected facilities. In cases where hazardous waste storage units would only be managing excluded material pursuant to today's proposal, the



current regulations could be read as triggering the closure requirements for those units, since owners/operators of non-land based hazardous waste units (e.g., tanks, containers, containment buildings) must begin closure within 90 days of receiving a unit's final volume of hazardous wastes. See 40 CFR 264.113(a) and 265.113(a). EPA is concerned that requiring closure of units in these situations would serve little environmental purpose, since after closure the unit would be immediately reopened and used to store the same (now excluded) material. It should also be noted that, under today's proposal, units storing excluded materials would be considered essentially the same as similar units used to store products. Thus, we do not believe that requiring these particular units to close through RCRA Subtitle C procedures is necessary to protect human health and the environment.

The Agency is today proposing that closure of storage units would not be required when such units cease storing hazardous wastes and are subsequently used to store the same materials that would no longer be regulated as wastes under today's proposed exclusion. If, however, such units were used previously to store different types of hazardous wastes, the units would be subject to hazardous waste closure requirements. We request comment as to whether more explicit regulatory provisions to address RCRA closure requirements in these types of situations would be appropriate in the final rule.

#### *Enforcement*

Today's proposed rule describes an exclusion from Subtitle C regulations for hazardous secondary materials recycled in certain ways, with the regulatory text describing the "boundaries" of the exclusion. If a material is not managed within these boundaries, the material is not excluded and is a hazardous waste for Subtitle C purposes from the time the generator first generated it. Therefore, each person who manages a hazardous secondary material that loses its exclusion would have to manage it consistently with hazardous waste management requirements from the point when the material was first generated, regardless of whether the person is the one who actually causes the loss of the exclusion.<sup>13</sup> EPA could

<sup>13</sup> The loss of the exclusion for some materials at a facility does not automatically effect the status of other hazardous secondary materials managed under the exclusion. For example, if a hazardous secondary material at a reclaimer loses the exclusion and thus is hazardous waste, the status of other hazardous secondary materials managed by that reclaimer remain unaffected, provided that

choose to bring an enforcement action under RCRA section 3008(a) for all violations of Subtitle C requirements occurring from the time the material is generated through the time that it is finally disposed. States could choose to enforce for violations of state hazardous waste requirements under state authorities. Any enforcement action would address the management of those hazardous secondary materials that are outside the boundaries of the exclusion.

EPA believes that this approach, which treats hazardous secondary material that does not come within the boundaries of the exclusion as hazardous waste from its point of generation, provides everyone involved with an incentive to handle materials to prevent the loss of the exclusion. It also encourages each person to use all appropriate steps to see that others handle the material so it is legitimately reclaimed.

To illustrate, if the generator of a hazardous secondary material claims the exclusion and then sends the material, via a transporter, to a reclamation facility not in the same industry, then the material would not be excluded. It would be a hazardous waste. Further, if a generator considered a hazardous secondary material to be excluded, and sent the material via a transporter to a reclaimer who decided to dispose of it rather than reclaim it, the material again would be a hazardous waste. In both cases, EPA and an authorized state could choose to bring an enforcement action against the reclaimer, transporter, and/or generator, for violations of applicable RCRA hazardous waste requirements. The material would be a hazardous waste from the time the generator first generated it. Those who managed the waste also could be subject to EPA and/or state enforcement.

As with any violation, EPA and authorized states would have a range of enforcement options. Enforcing agencies would use their discretion to select the option that is appropriate to a specific case and its factual circumstances. Some of these options include sending a notice of violation, ordering that the situation be remedied, or assessing fines or other penalties as appropriate.

In an enforcement action, a respondent who claims that a particular hazardous secondary material is excluded because that material was managed consistently with 40 CFR 261.2(g) would have the burden of proof, including the burden of persuasion, to demonstrate that the

they are managed consistently with the boundaries of the exclusion.

material has been managed in a manner that maintains the exclusion from the point it was generated. 40 CFR 261.2(f). For example, a reclamation facility rebutting an allegation that it disposed of hazardous waste in violation of RCRA Subtitle C would have the burden of proving the material was an excluded hazardous secondary material because it had been managed consistently with 40 CFR 261.2(g) from the point when it was generated.

In addition, the exclusion in today's rule would not affect the obligation to promptly respond to and remediate any releases of hazardous secondary material that may occur. If, for example, a hazardous secondary material is spilled or released, then the material would be discarded. Any management of the released material not in compliance with applicable Federal and State hazardous waste requirements could result in an enforcement action. For example, a person who spilled or released a hazardous secondary material, and failed to immediately clean it up, could potentially be subject to enforcement for illegal disposal of the waste. See, for example, 40 CFR 264.1(g)(8). In addition, the waste could potentially be addressed through enforcement orders, such as orders under RCRA sections 3013 and 7003.

#### *B. Legitimate Recycling*

##### 1. What Is Legitimate Recycling?

Under the current Subtitle C definition of solid waste, many hazardous secondary materials that would otherwise be subject to regulation under RCRA's "cradle to grave" system are not considered wastes if they are recycled. The general idea behind this construct is that recycling of such materials often closely resembles normal industrial production, rather than waste management. Since there can be a considerable economic incentive to manage recyclable materials outside the RCRA regulatory system, there is a clear potential for some handlers to claim that they are recycling, when in fact they are conducting waste treatment and/or disposal in the guise of recycling.

In the preamble to the 1985 regulations (50 FR 638, January 4, 1985), EPA articulated the need to distinguish between "sham" and "legitimate" recycling of hazardous secondary materials. The issue is whether these activities are legitimate recycling, or are rather some form of treatment or disposal being called recycling in an attempt to evade regulation. The 1985 preamble discussion cited above outlined several guidelines for making such distinctions. Subsequent guidance

(discussed in more detail below) elaborated on those guidelines, and reinforced the principle that recycling of hazardous secondary materials that is not legitimate amounts to treatment or disposal, which is a regulated activity under RCRA.

In recent years, a wide range of RCRA stakeholders, including many state agency officials, have expressed concern that the statements in preamble and current guidance on legitimate recycling do not provide sufficient clarity or predictability for making recycling legitimacy determinations. Because of these concerns, many stakeholders have encouraged EPA to revise and clarify the current legitimacy criteria, and to promulgate them in regulations.

EPA believes that today's proposed rulemaking is a good opportunity to establish RCRA's recycling legitimacy criteria in regulations, and at the same time to make clarifying revisions to them. Accordingly, today's proposal includes specific regulatory provisions for distinguishing legitimate recycling from sham recycling practices, which reorganize and clarify the existing criteria that have been articulated in preamble statements and guidance. Today's proposal to codify recycling legitimacy criteria is not based on any direction from the D.C. Circuit Court.

Today's proposed legitimacy criteria are intended primarily to clarify and simplify the same basic legitimacy principles that have been in use since 1985. We believe that the new codified regulatory criteria will, when applied to actual recycling scenarios, result in determinations that are consistent with those based on current guidance. As such, we do not anticipate the need for overseeing agencies to revisit previous legitimacy determinations if the proposed criteria are finalized.

## 2. What Is the Current Guidance for Legitimate Recycling?

In the January 4, 1985 preamble to the final rule that established the current definition of solid waste regulations, EPA described several indications of sham recycling. A similar discussion that addressed legitimacy as it pertains to burning materials for energy recovery was presented in the preamble to the January 8, 1988 proposed amendments to the definition of solid waste (53 FR 522), portions of which were never finalized. On April 26, 1989, the Office of Solid Waste issued a memorandum that consolidated preamble statements concerning legitimate recycling into a single list of criteria to be considered in evaluating legitimacy (OSWER directive 9441.1989(19)). This memorandum has been, and still is, the primary source of

guidance for the regulated community and for overseeing agencies in distinguishing between legitimate and sham recycling.

As explained in the 1989 memorandum, a legitimacy determination involves evaluating case-specific information to determine whether or not a secondary material being recycled is in effect being used as a commodity, rather than as a waste. The 1989 memorandum identified six criteria to be considered in evaluating this fundamental question, explaining that each recycling scenario is likely to require a case-specific evaluation. The memorandum further explained that, depending on the case-specific facts and circumstances, certain criteria may weigh more heavily than others in making legitimacy determinations. The general criteria presented in the 1989 guidance memorandum are as follows:

- Is the secondary material similar to an analogous raw material or product?
- What degree of processing is required to produce a finished product?
- What is the value of the secondary material?
- Is there a guaranteed market for the end product?
- Is the secondary material handled in a manner consistent with the raw material/product it replaces?
- Other relevant factors (*e.g.*, economics of the recycling process, toxic constituents "along for the ride")?

## 3. Today's Proposed Criteria for Legitimate Recycling

A. What types of recycling would be addressed by today's legitimacy criteria? Today's proposal would add a new paragraph (h) to the 40 CFR 261.2 definition of solid waste, specifying four general criteria to be used in determining whether recycling of hazardous secondary materials is legitimate.<sup>14</sup> These legitimacy criteria are intended to apply generally to the following types of materials:

- Recyclable hazardous secondary materials that would be excluded from Subtitle C regulation as wastes under today's proposal for intra-industry recycling.
- Hazardous secondary materials that, because they are recycled, are excluded

<sup>14</sup> It should be noted that today's proposed legitimacy criteria are not intended to apply to recycling of materials that are non-hazardous (*i.e.*, materials that are not listed hazardous wastes, and that do not exhibit a hazardous characteristic). Thus, for example, recycling of non-hazardous household wastes, such as newspapers and aluminum cans, would not be subject to the proposed criteria. Likewise, the proposed criteria would not apply to recycling of non-hazardous secondary materials generated from industrial operations.

or exempted from Subtitle C regulation under other regulatory provisions (see, for example, the exclusions in 40 CFR 261.4).

- Recyclable hazardous wastes that are regulated under Subtitle C prior to recycling.

Today's proposal is the Agency's first attempt to codify in regulatory form general, broadly applicable principles for making recycling legitimacy determinations. It should be noted, however, that the Agency has examined in depth a number of waste-specific and industry-specific recycling practices, and has promulgated regulations that address the legitimacy of many of these practices in much more specific terms. Thus, there will be situations where today's broadly-applicable proposed criteria would in a sense overlap with these more specific legitimacy provisions. One example of this would be the recently promulgated regulations for zinc fertilizers made from recycled hazardous secondary materials, which (among other things) specifies numerical limits on five heavy metal contaminants and dioxins in these zinc fertilizer products (67 FR 48393, July 24, 2002). Other examples of more specific legitimacy provisions are found in the regulations promulgated for comparable fuels (63 FR 33782, June 19, 1998), the "use constituting disposal" provisions in 40 CFR part 266, subpart C, and the "burning for energy recovery" provisions in 40 CFR part 266, subpart H.

Where more specific criteria or requirements have been established in regulations, affected parties should look to those regulatory provisions, in addition to the generic legitimacy criteria being proposed in today's rule. For example, for a zinc micronutrient fertilizer manufacturer, the analysis of "toxics along for the ride" (see Criterion #4, discussed below) would involve an analysis of whether his fertilizer product meets the contaminant limits specified in 40 CFR 261.4(a)(21). The Agency specifically requests comments on any scenarios where the public sees a conflict between the generic legitimacy criteria and more specific regulatory provisions for a particular recycling practice, and what potential problems could arise from any such conflicting legitimacy provisions.

If EPA or an authorized state agency determines that a process is not legitimate recycling, the activity would be considered waste treatment or disposal and would thus be subject to regulation under RCRA Subtitle C, if hazardous. These proposed criteria are intended to apply to all recycling of hazardous secondary materials,

including any recycling that may be covered under today's proposed exclusion for "materials recycled in a continuous process within the generating industry." If an owner/operator claims they are conducting legitimate recycling but the appropriate regulatory agency determines that the process is sham recycling, the recycler and the generator(s) of the recycled material may be subject to enforcement action. As noted earlier, if a hazardous secondary material is discarded through sham recycling, the generator and all others who have handled or managed the material may be subject to enforcement for violations of RCRA Subtitle C requirements. To avoid enforcement, a prudent generator will take steps to ensure that the recycling of his materials is legitimate.

B. What are today's proposed legitimacy criteria, and how would they be used? The following is a discussion of today's proposed legitimacy criteria, with an explanation of how each of the proposed criteria relates to preamble statements and guidance currently in use. The four proposed criteria are:

1. Criterion #1: The secondary material to be recycled is managed as a valuable commodity. Where there is an analogous raw material, the secondary material should be managed in a manner consistent with the management of the raw material. Where there is no analogous raw material, the secondary material should be managed to minimize the potential for releases into the environment.

2. Criterion #2: The secondary material provides a useful contribution to the recycling process or to a product of the recycling process and evaluating this criterion should include consideration of the economics of the recycling transaction. The recycling process itself may involve reclamation, or direct reuse without reclamation.

3. Criterion #3: The recycling process yields a valuable product or intermediate that is: (i) Sold to a third party; or (ii) Used by the recycler or the generator as an effective substitute for a commercial product or as a useful ingredient in an industrial process.

4. Criterion #4: The product of the recycling process:

(i) Does not contain significant amounts of hazardous constituents that are not found in analogous products; and

(ii) Does not contain significantly elevated levels of any hazardous constituents that are found in analogous products; and

(iii) Does not exhibit a hazardous characteristic that analogous products do not exhibit.

As proposed today, these legitimacy criteria are not expressed as questions to be answered, as they were in the 1989 guidance. Rather, they are expressed as principles to be assessed on a case-specific basis. As proposed, therefore, a legitimacy determination would be a case-specific judgment as to whether a particular recycling practice is consistent with the four criteria in 40 CFR 261.2(h).

The proposed legitimacy criteria are intended to apply to a wide range of recycling scenarios across a wide array of industries. Although EPA expects that most, if not all, legitimate recycling practices will conform to each of the four criteria, the application of the criteria will require some subjective evaluation and balancing. Furthermore, there may be situations when a recycling activity that does not conform to one or more of the criteria could be considered legitimate. For example, with regard to the first criterion listed above, there could be a situation in which the secondary material to be recycled is managed in a different (though protective) manner than analogous raw materials are managed. Such recycling might nevertheless be considered legitimate if the recycling process satisfied the other three criteria, and management of the materials is reasonable and appropriate. There are likely to be other types of situations where a particular legitimacy criterion may not be met, but where the overall recycling practice would nevertheless be considered legitimate. Although we believe that today's proposed criteria would provide a sound basis for making legitimacy determinations, we are interested in any examples of legitimate recycling practices that might not meet all of the criteria proposed today.

The proposed legitimacy criteria, if finalized, would continue to be used in the same way as the current guidance has been used. That is, we would expect the regulated community to continue to evaluate their recycling operations using the criteria, and reach their own conclusions without prior approval by an overseeing agency. Such conclusions would, of course, be subject to review by EPA or the authorized state should the need arise.

EPA requests comment as to whether the proposed legitimacy criteria should be structured differently in the final rule, such as in the form of mandatory requirements that must all be met, or perhaps in a system where certain criteria are mandatory and others are not. We are especially interested as to whether structuring the legitimacy criteria differently would necessitate revisiting previous legitimacy

determinations made by regulated entities or implementing agencies. We are also interested in comments as to any case-specific examples of legitimate recycling where one or more of the proposed factors would not be relevant in making determinations, and whether or not other additional criteria beyond those proposed today should be considered in making legitimacy determinations.

The following is an explanation of each of the four proposed legitimacy criteria, including a discussion of how each proposed criterion relates to existing guidance.

1. Criterion #1: "The secondary material to be recycled is managed as a valuable commodity. Where there is an analogous raw material, the secondary material should be managed in a manner consistent with the management of the raw material. Where there is no analogous raw material, the secondary material should be managed to minimize the potential for releases into the environment."

In EPA's view, a recycler will value secondary materials that provide an important contribution to his process or product and will manage them in a manner consistent with a valuable feedstock material (*i.e.*, will manage them to minimize their loss). If the recycler does not manage them as he would manage valuable feedstock, it may indicate that the "recycling" practice actually involves disposal of the secondary material.

Therefore, the secondary material to be recycled should be managed prior to recycling in essentially the same way as raw materials are managed in the course of normal manufacturing. EPA expects all parties involved in handling secondary materials destined for recycling to handle them as carefully as "analogous" raw materials would be handled. Such parties include generators, transporters, and recyclers, as well as any other parties that manage the secondary materials prior to recycling. To illustrate, hazardous metal-bearing secondary materials can often be used as substitutes for "raw" metal ore concentrates in making metal products. Assuming both types of materials have similar physical properties, the Agency would expect the secondary materials and the metal ore concentrates to be managed in the same or similar units. If, however, in this example the secondary materials were managed in outdoor piles, while the ore concentrate materials were managed in containers, an overseeing agency might well determine that the practice of storing the secondary materials in outdoor piles indicates sham recycling.

(In addition, any releases of the hazardous secondary materials to the environment would also be considered discard under RCRA.)

In some recycling situations, a hazardous secondary material could be used as a substitute for a raw material that has very different physical characteristics, and thus would not be considered "analogous" for the purposes of this criterion. This could be the case, for example, if a secondary material is in dry powder form, while the raw material is a solid material that is not susceptible to dispersal by wind or rain. Similarly, if the secondary material contains hazardous constituents that the raw material it replaces does not, it also might not be considered "analogous" for the sake of this criterion. Similarly, there may be some situations where there is no "analogous" raw material, such as where the recycling process is uniquely designed to use a specific secondary material.

In these types of situations, where it may be difficult to compare management of secondary materials with "analogous" practices for raw materials, consideration of this specific legitimacy criterion should focus on whether or not the secondary material is managed to minimize the potential for releases into the environment. This is consistent with the idea that normal manufacturing processes are designed to use valuable material inputs efficiently, rather than allowing them to be released into the environment. Thus, in situations where it is not feasible to compare management practices for hazardous secondary materials with analogous practices, assessment of this legitimacy criterion would involve examining the effectiveness of a facility's equipment and systems in preventing releases of the hazardous secondary materials into the environment.

#### How Does This Criterion Compare to Existing Guidance?

Although worded somewhat differently, this criterion is essentially the same as the fifth criterion in the previously cited 1989 guidance memorandum ("Is the secondary material handled in a manner consistent with the raw material/product it replaces?"). The 1985 preamble similarly asked whether recyclable secondary materials were "handled in a manner consistent with their use as raw materials or commercial product substitutes \* \* \*." In one respect, however, today's proposed criterion is less restrictive—the 1989 guidance posed an additional question "Is the

secondary material stored on the land?," implying that storage on the land is an indication of sham recycling. However, the Agency is aware of situations where storage of raw materials on the land is a normal part of the manufacturing process (this is the case with certain large-scale mineral processing operations, for example). Thus, today's proposal does not identify land storage as a specific indicator of sham recycling. EPA notes, however, that land storage may result in releases to the environment that constitute discard.

2. Criterion #2: "The secondary material provides a useful contribution to the recycling process or to a product of the recycling process and evaluating this criterion should include consideration of the economics of the recycling transaction. The recycling process itself may involve reclamation, or direct reuse without reclamation."

This criterion expresses the fundamental principle that secondary materials should actually be useful (*i.e.*, contribute value) to a recycling process. This is intended to prevent the practice of adding secondary materials to manufacturing operations simply as a means of disposing of them, which is sham recycling. An example of a recycling operation that would fail to satisfy this criterion would be a wastewater treatment sludge that is fed into a metals smelter, but that contains no recoverable amounts of metal, and does not otherwise contribute to the smelting process. Another example would be using a toxic metal-bearing sludge as a feedstock to make ceramics, where neither the toxic metals or other components of the sludge contribute valuable properties to the ceramic products. There may also be situations where some amount of a secondary material is useful to a recycling process, but much larger volumes of the material are actually introduced into the process. A material that is added in excess of the amount actually needed to make an end-product might also fail to meet this criterion for useful contribution.

Not every component of a secondary material would necessarily have to contribute to the product or process to satisfactorily meet this criterion. For example, a legitimate recycling operation involving recovery of precious metals might not recover all of the components of a hazardous secondary material, but would recover precious metals with sufficient value to justify the recycling. A similar example might be where recycling involves recovery of the hazardous component of a secondary material (*e.g.*, cadmium in batteries), where the more inert constituents of the secondary material

are not recovered or reused, but the recovered portion is of sufficient value to justify reclamation.

This proposed criterion consolidates and clarifies existing guidance that addresses how useful or valuable a hazardous secondary material should be to a recycling process. In practice, this issue has often been viewed primarily as an economic question, such as whether the secondary material is marketable as a valuable commodity, or whether it has a marketplace value comparable to an analogous virgin material. EPA is not proposing a particular economic test for evaluating this criterion, nor do we necessarily believe that a secondary material must be marketable to the public in order for it to have sufficient value for the recycling process to be legitimate recycling. In general, we believe that evaluation of the usefulness of a secondary material to the recycling process should be based on the nature of the material and its value to the recycling process. The question of who pays whom, the amounts of money involved, and other aspects of the transaction between the generator and recycler can be an indicator as to whether or not the recycling is legitimate or is disposal in the guise of recycling. It is EPA's experience that in many legitimate recycling transactions the generator pays the recycler to accept the material to be recycled. However, the Agency is also aware that in many sham recycling cases the recycler has received payment from the generator. The usefulness of the secondary material to the recycling process (whether established through knowledge of the material and process or consideration of the economics of the transaction) needs to be evaluated along with the other legitimacy criteria articulated in today's proposal in evaluating whether the recycling is legitimate.

Another issue that could arise in evaluating this "useful contribution" criterion is the efficiency of a recycling process in recovering or regenerating the useful component of a recyclable material. For example, if the objective of a recycling process were recovery of copper from a secondary material, but only a small fraction of the copper in the material is actually recovered, sham recycling could be indicated. If, however, the recycling process was reasonably efficient and recovered all but a small amount of the copper (*e.g.*, 90 to 95 percent), it would likely meet this criterion and thus indicate legitimate recycling. A pattern of mismanagement of the residues by the recycling facility may also be an indicator of sham recycling.

In a similar vein, there may be instances where more than one secondary material is used in a single recycling process, and the materials are mixed or blended as part of the process. In such cases, each of the recyclable materials used would need to satisfy the "useful contribution" criterion. This is to avoid situations where a relatively worthless secondary material could be mixed with a more valuable or useful material in an attempt to disguise and dispose of it, which is sham recycling.

Given the wide variety of possible recycling practices that may be subject to legitimacy determinations under today's proposed criteria, and the many different ways materials may be "useful" to those practices, the following examples are offered to clarify what we mean by "useful contribution" under this criterion.

The secondary material contributes valuable ingredients to a product of the recycling process. Secondary materials often contribute to a recycling process by becoming ingredients in a product. For example, spent solvents from a paint spray booth can often be used directly as ingredients in manufacturing paint. In some cases, secondary materials will need to be reclaimed first to remove contaminants or to make them otherwise suitable for use as ingredients in making a product. An example would be a zinc-bearing sludge that is first processed (*i.e.*, reclaimed) into zinc oxide, which is used as a feedstock in an electrolytic zinc refinery that manufactures zinc metal.

The secondary material replaces a catalyst or carrier in the process. In some cases, secondary materials can be reused (either directly, or after being reclaimed) in production processes, but are not incorporated as ingredients in the resulting products. This includes catalysts and chemicals that act as carriers or synthesis media for other chemicals in a production process. In either case, the secondary material must be useful for that purpose.

The secondary material is the source of a valuable constituent(s) recovered in the recycling process. Many legitimate recycling operations involve reclamation of a secondary material primarily to recover a specific, valuable component of the material. A common example is mineral processing, where metal-bearing secondary materials such as baghouse dusts and other sludges are reclaimed to extract valuable minerals.

The secondary material is regenerated by the recycling process. Regeneration is a type of "useful contribution," where a spent material is reclaimed to restore its original useful properties so that it can be reused. Regeneration of spent

solvents through distillation is one example of this type of recycling. Another example is regeneration of acid baths used to "pickle" steel by removing impurities and restoring their acidic properties.

The secondary material is used as an effective substitute for a commercial product. In many cases, a secondary material can be used directly as a substitute for a commercial product without reclamation. This type of recycling is perhaps the clearest example of "useful contribution," in that the secondary material is used productively, and it replaces a commercial product that would otherwise have to be purchased. Use of spent pickling acid as a conditioning agent in wastewater treatment plants is an example of such a practice.

How Does This Criterion Compare to Existing Guidance?

This proposed criterion addressing "useful contribution" has been distilled from and clarifies concepts in the Agency's existing guidance for legitimate recycling. For example, the preamble to the January 4, 1985 recycling regulations noted that if a secondary material is "ineffective or only marginally effective for the claimed use, the activity is not recycling but surrogate disposal." Similarly, the January 8, 1988 proposed rule discussed as a legitimacy concept "how much energy or material value each waste contributes to the recycling purpose." In the 1989 legitimacy guidance, the issue of effectiveness was addressed by the questions: "Is much more of the secondary material used as compared with the analogous raw material/product it replaces?"; "Is only a nominal amount used?"; and "Is the secondary material as effective as the raw material or product it replaces?" The guidance also addressed the value of the secondary material by posing the questions, "Is it (the secondary material) listed in industry news letters, trade journals, etc.?" and "Does the secondary material have economic value comparable to the raw material that normally enters the process?"

3. Criterion #3: "The recycling process yields a valuable product or intermediate that is:

- (i) Sold to a third party; or
- (ii) Used by the recycler or the generator as an effective substitute for a commercial product or as a useful ingredient in an industrial process."

This proposed criterion is intended to capture the fundamental precept that legitimate recycling must produce something of value. If a "recycling" process creates a material that no one

wants or will use, it can be presumed that the process is conducted to dispose of the material; *i.e.*, it is sham recycling.

For the purpose of this criterion, a recycled product may be considered "valuable" if it can be shown to have either economic value, or a value that is more intrinsic (*i.e.*, it is useful to the end user, though it may not be salable as a product or commodity in the marketplace). One relatively simple way to demonstrate that the recycling process yields a valuable product would be the documented sale of a recycled product to a third party. Such documentation could be in the form of receipts, as well as contracts or agreements establishing the terms of sale or transaction. A recycler that has not yet arranged for sale of its product to a third party could establish the value of the recycled product by demonstrating that it can replace another product or intermediate (process input) that is available in the marketplace. It is also possible that in some situations a recycled product could be sold at a loss (*e.g.*, as a "loss leader" to attract customers, or because of normal market fluctuations), and nevertheless be considered a "valuable product" under this criterion. In such cases, however, the recycler would need to demonstrate how selling the product at a loss is economically beneficial to the seller, and that the product is actually valuable to the person who uses it.

Many recycling processes produce outputs that are not sold to another party, but are instead used by the generator or recycler. For example, some recycled products or intermediates may be very useful as feedstocks in a specific manufacturing process, but may have no established monetary value in the marketplace. Such recycled products or intermediates would be considered to have "intrinsic" value, though demonstrating that value may be less straightforward than for products that are sold in the marketplace.

Demonstrating the value of recycled products that are not sold to third parties could involve showing that the recycled product replaces an alternative product or material that would otherwise have to be purchased. In other cases, the recycler could show that the product or intermediate meets certain specific product specifications, or meets established industry standards. Another approach to demonstrating the value of these types of recycled products or intermediates could be to compare their characteristics (*e.g.*, their physical/chemical properties, or their efficacy for certain uses or applications) with

comparable products or intermediates made from raw materials.

Some recycling processes may consist of multiple steps, which may occur at separate facilities. In some cases, each processing step will yield a valuable product, such as when a metal-bearing sludge is processed to reclaim a precious metal, and is then put through another process to reclaim a different mineral. When each step in the process yields a valuable product that is salable or usable in that form, that recycling process would meet this proposed criterion. If, however, a particular step in a recycling process does not yield a separate salable or ready-for-use product, that process step would typically need to add value to the material in some way in order to satisfy this criterion. Thus, for example, if the first step in reclaiming a metal-bearing secondary material results in a fused or agglomerated material, a second step consisting of particle size reduction may be necessary to facilitate the next reclamation step. Although reducing the particle size in this case would not by itself produce a valuable product, it may add value to the recycling process and is consistent with the intent of this criterion.

#### How Does This Criterion Compare to Existing Guidance?

This proposed criterion distills several of the questions posed by the 1989 legitimacy guidance. In that guidance, the value of recycled products sold to third parties was addressed by posing the questions, "Is there a guaranteed market for the end product?" and "Is there a contract in place to purchase the "product" ostensibly produced from the hazardous secondary materials?" The guidance addressed recycled products used by the recycler or the generator as process ingredients by posing the questions "\* \* \* is the product used by the (recycler)? The generator? Is there a batch tolling agreement?" The "usefulness" of a recycled material was addressed by the questions: "Is the (recycled) product a recognized commodity?" and "Are there industry-recognized quality specifications for the product?" The language we are proposing today attempts to reflect these concepts in a concrete manner by, for example, making it clear that one needs to assess not only whether there are industry-recognized quality specifications, but also that the recycled product would need to meet or exceed any applicable specifications to be considered legitimate recycling. We believe that today's proposed Criterion #3 captures the essence of the original guidance.

The 1989 guidance posed additional questions aimed at distinguishing recycling operations that involve direct use or reuse of secondary materials from recycling operations that involve reclamation. These concepts, however, are not particularly relevant to distinguishing legitimate from sham recycling, and we therefore did not attempt to capture them in today's proposed legitimacy criteria.

4. Criterion #4: "The product of the recycling process:

(i) Does not contain significant amounts of hazardous constituents that are not found in analogous products; and

(ii) Does not contain significantly elevated levels of any hazardous constituents that are found in analogous products; and

(iii) Does not exhibit a hazardous characteristic that analogous products do not exhibit."

This proposed criterion addresses "toxics along for the ride" in products made from recycled secondary materials. Put another way, the question posed by this criterion is whether hazardous constituents are "discarded" by being incorporated into a product made from hazardous secondary materials, which would indicate sham recycling.<sup>15</sup>

In evaluating this aspect of legitimacy, a recycler would ordinarily compare the recycled product to an analogous product made with raw materials. Thus, if a recycling process produced (for example) paint, the levels of hazardous constituents in the paint could be compared with the levels of the same constituents found in similar paint made from raw materials.

Although this criterion focuses on hazardous constituents that may be found in the end-products of recycling processes, a recycler could choose to evaluate this criterion indirectly by comparing the hazardous constituents in the secondary material feedstock with those in an analogous raw material feedstock. If the secondary material feedstock does not contain higher concentrations of hazardous constituents than the raw material feedstock, then the end product of the recycling process should not contain excess hazardous constituents "along for the ride." This feedstock comparison may be simpler than the product comparison when the recycler knows the secondary material is very similar in profile to the raw material. It may also be more practical than the product comparison when there is no analogous

product, or when production of the recycled product has not yet begun.

Today's proposed criterion #4 identifies three specific tests for evaluating whether or not this criterion is met. This criterion is designed to determine whether or not unacceptable amounts of toxic constituents are passed through to recycled products. The first test specifies that where analogous products made with raw materials do not contain hazardous constituents, the recycled product should not contain significant amounts of any hazardous constituent. For example, if paint made from reclaimed solvent contains significant amounts of cadmium, while the same type of paint made from raw materials does not contain cadmium, it would likely indicate that the cadmium serves no useful purpose and is being passed through the recycling process and discarded.

The second test addresses situations where an analogous product does contain some hazardous constituents, and asks whether those hazardous constituents are found in the recycled product at levels significantly higher than in the analogous product. This test ensures that levels of hazardous constituents in recycled products are comparable to levels of the same constituents in analogous products made from raw materials. For example, if a lead-bearing hazardous sludge was used as an ingredient in making ceramic tiles, and the amount of lead in the tiles was significantly higher than the lead level found in similar tiles made of raw materials, discard would likely be indicated. As with the previous test, the comparison could be made product-to-product, or could be made by comparing the constituent levels in the secondary material with those in the analogous raw material.

The third test under this criterion is whether the recycled product exhibits a hazardous characteristic that analogous products do not exhibit. This test ensures that recycled products do not exhibit the characteristics of toxicity, ignitability, corrosivity, or reactivity when the analogous products do not.<sup>16</sup> The Agency believes that most issues associated with "toxics along for the ride" will involve the presence of toxic constituents, which are addressed under the first two tests discussed above. We believe that there are few, if any, cases where the first two tests described above would be met for a recycled product, but the product would nevertheless

<sup>15</sup> Hazardous constituents are defined in 40 CFR part 261, Appendix VIII.

<sup>16</sup> These characteristics are defined in 40 CFR Part 261, Subpart C.

exhibit the hazardous characteristic of toxicity.

It is possible, though, that the use of a hazardous secondary material as an ingredient could cause a product to exhibit a hazardous characteristic, such as corrosivity, that is not exhibited by analogous products. We seek comments as to how often this test might be relevant to making legitimacy determinations, and information as to any specific recycling processes that might be affected by this test.

In evaluating this criterion for a particular recycling process, regulators and the regulated community may frequently need to assess what amount of a hazardous constituent is a "significant amount" or a "significantly elevated level." EPA is not proposing a specific formula or method for defining "significant" in this context. Given the exceptional diversity and variability of potentially recyclable materials, we believe that this issue is best addressed on a case-by-case basis, instead of imposing a generic limit that could apply to all recycling and all recyclable materials.

The following examples are offered to illustrate how "significant" might be evaluated for certain recycled products. In one example, if zinc galvanizing metal made from recycled hazardous secondary materials contains 500 parts per million (ppm) of lead, while the same zinc product made from raw materials typically contains 475 ppm, this difference in concentration would likely not be considered "significant" in evaluating this legitimacy criterion. If, on the other hand, in this example the lead levels in the recycled zinc product were 1,000 ppm, it would likely indicate discard of significant amounts of lead. To offer another example, if a "virgin" solvent contains no detectable amount of barium, while spent solvent that has been reclaimed contains a minimal amount of barium (e.g., 1 ppm), this difference might not be considered significant. If, however, the barium in the reclaimed solvent were at much higher levels (e.g., 50 ppm), it would likely indicate discard of the barium.

Evaluating the "significance" of levels of hazardous constituents in recycled products for the purpose of this criterion may involve taking into account several factors, such as the type of product, how it is used and by whom, whether or not elevated levels of hazardous constituents compromise in any way the efficacy of the product, and other factors. To illustrate one such situation, if a recycled plastic product contains low but detectable levels of vinyl chloride (a human carcinogen) that analogous plastics do not contain,

and the plastic could be used to make children's teething toys, a more rigorous evaluation of the "significance" of the vinyl chloride in the recycled product would be called for than if the product were used for some type of industrial application.

#### How Does This Criterion Compare to Existing Guidance?

The 1989 guidance and the preamble statements that support it have addressed the question of "toxics along for the ride" in a more general way than today's proposed criterion. The 1989 guidance, for example, places emphasis on examining the presence of toxic constituents in the secondary material destined for recycling, rather than focusing primarily on the presence of such constituents in the recycled product. As noted above, today's criterion is intended to primarily address the question of "toxics along for the ride" in the products of recycling. We believe that the presence of toxic constituents in recyclable secondary materials is less relevant to assessing the legitimacy of recycling, primarily because much if not most recycling (as well as manufacturing) involves removing or destroying such harmful materials. As reflected in this proposed criterion, the central question is whether or not (and in what amount) hazardous constituents pass through the recycling process and become incorporated into the products of recycling.

We do not believe that this shift in emphasis will substantially affect the outcome of legitimacy determinations. In fact, the approach in today's proposal (i.e., focusing on toxic constituents in recycled products) may be somewhat less restrictive than the guidance it would replace. It is possible, however, that by focusing the proposed criterion on toxics in recycled products, some recycling that may have previously been considered legitimate might not be under today's proposal. We invite comment on this issue, and specifically solicit examples where existing legitimacy determinations could change if today's proposed criterion were finalized.

#### Alternatives Considered

The Agency examined two main alternative approaches to addressing the issue of "toxics along for the ride" that would have provided greater specificity in assessing the "significance" of elevated levels of toxic constituents in recycled products. These regulatory alternatives are discussed below.

"Bright Line" Approach. One alternative approach would be to

establish a specific numerical limit to define "significant" for the purpose of evaluating this legitimacy criterion. This approach would in effect establish a "bright line" for defining "significant amounts" and "significantly elevated levels" under today's proposal. Under such an approach, this criterion might specify that the amount of hazardous constituents in a recycled product could be present at levels no greater than one or two standard deviations above those in an analogous product made from raw materials. The limit could also be expressed as a percentage (e.g., "no greater than 5 percent more \* \* \*").

Such a bright line approach could provide greater clarity and predictability to the regulated community and state and federal agencies overseeing new regulations for legitimate recycling. On the other hand, this alternative, in establishing a specific quantitative test for whether hazardous constituents are along for the ride in a recycled product, could be somewhat arbitrary, and depending on the particular constituents of concern and product use, could result in either over-regulation or under-regulation, or both.

Risk-based Approach. The "bright line" approach described above would only function to compare levels of constituents in recycled products with those in analogous products. That approach would not, therefore, directly address the issue of the potential risks posed by those hazardous constituents. Depending on the hazardous constituents of concern and the uses of the recycled product, some increased levels of hazardous constituents may not pose any risk to workers (where the recycled product is a process intermediate) or the public (where the recycled product is a consumer product). It is also possible that such hazardous constituents could pose unacceptable risks, even if they are present at levels below a statistical "cutoff" limit that might be established under the option described above. Thus, in developing this proposed criterion, we considered an alternative approach that would more explicitly address the risks posed by toxic constituents in recycled products.

One possible approach could be to specify that if a recycled product contains hazardous constituents at higher levels than those in an analogous product made with raw materials, the recycler would need to assess the risks to human health and the environment posed by those increased levels. This criterion would be met if the risks were acceptable ("acceptable" risks would presumably also be defined under such an approach).



This approach would likely require recyclers in many cases to perform a life-cycle risk assessment, examining potential exposure scenarios from use of recycled products, and estimating the risks associated with such exposures. In many cases, such analyses could be relatively straightforward "screening" analyses, though in other cases more elaborate analysis might be needed, particularly for consumer products.

EPA is not proposing a risk-based approach to setting limits on "toxics along for the ride," primarily due to its potential complexity. It can also be argued that the legitimacy of a recycling process relates more directly to how it compares with normal industrial production, rather than the risks that may be posed by recycled products (since products made from raw materials can also pose risks). Finally, a risk-based approach in assessing toxics along for the ride would be a radical departure from how this issue is currently considered, which is not our intent in today's proposal.

The Agency invites comment on the alternative approaches described above, and other approaches for establishing legitimate recycling with regard to hazardous constituents or characteristics in recycled products.

#### **IV. Request for Comment on a Broader Exclusion for Legitimate Recycling**

While the scope of today's lead proposal is limited to materials that are generated and reclaimed within the same industry, discussions with various stakeholders during the development of this proposal identified an alternative regulatory option that could further encourage recycling and reuse while maintaining protection of human health and the environment. EPA is considering this regulatory option, and may adopt it in the final rule; we therefore solicit comment on the option, as described below.

This option, as identified by stakeholders, would provide a broader regulatory conditional exclusion from RCRA regulation for essentially all materials that are legitimately recycled by reclamation, whether the recycling is done within the generating industry, or between industries. Although RCRA provides the authority to regulate many of those materials recycled between industries, such a broader regulatory exclusion, properly crafted, could encourage additional recycling and reuse while protecting human health and the environment. It is not envisioned that such a broader regulatory exclusion would alter the current status of the three types of recycling practices that are specifically

outside the scope of today's proposal (*i.e.*, burning for energy recovery, as defined at 40 CFR 261.2(c)(2); use constituting disposal, as defined at 40 CFR 261.2(c)(1); or recycling of inherently waste-like materials, as defined at 40 CFR 261.2(d)).

By removing most regulatory controls from all legitimate reclamation, this broader option could encourage additional recycling of hazardous secondary materials above and beyond that expected as a result of the intra-industry option proposed today. This broader regulatory exclusion could thus potentially result in less disposal of valuable materials, less use of virgin materials, and better resource conservation. In addition, it could result in lower costs associated with RCRA permits, manifesting, and other requirements. Such an approach might be of particular benefit for an industry that is composed primarily of small business entities. For onsite recycling to be economically feasible, large quantities of secondary materials may be required. Small businesses generally do not generate such large quantities. Therefore, smaller businesses may often not be able to recycle materials themselves, and may rely primarily on third party recyclers that are considered part of the waste management industry. These specialized recycling businesses may have particular expertise with reclaiming materials and finding markets for them. A broader exclusion would tend to encourage these types of inter-industry recycling transactions. Stakeholders suggesting this approach also believe that legitimate recycling activities do not pose risks of hazardous material releases or human exposures to such releases, and hence such an exclusion could achieve the benefits of increased recycling and at the same time protect human health and the environment.

A broader regulatory exclusion of this kind would apply only to hazardous secondary materials that are legitimately recycled by reclamation. With regard to defining legitimate recycling, today's proposal specifies four legitimacy criteria that would be evaluated on a case-by-case basis in judging whether a particular recycling practice is legitimate. As discussed in detail in section III.B., there may be some situations in which a recycling activity that does not conform to one or more of the criteria could be considered legitimate. The proposed criteria, and the manner in which they would be used, are modeled on EPA's current guidance for legitimate recycling.

Today's proposed legitimacy criteria could be adopted as part of a broader

regulatory exclusion for legitimate recycling. Alternatively, the same legitimacy principles could be expressed as explicit regulatory requirements that would each have to be met, rather than as criteria to be considered, as discussed in section III.B. Expressing legitimacy principles as regulatory requirements could result in more transparent and predictable legitimacy determinations, which could be an advantage in implementing a broader regulatory exclusion that would apply to a wider, more diverse set of industries and recycling practices. However, such an approach would be a departure from the current system for evaluating legitimacy, and could be considered more stringent than the legitimacy criteria proposed today. We anticipate that, whichever approach to defining legitimacy is adopted in the final rule (*i.e.*, the approach proposed today, or expressing legitimacy principles as regulatory requirements), the new legitimacy provisions would apply universally to all recycling, rather than only to materials affected by the new exclusion. We solicit comment on this issue.

If a broader regulatory exclusion were to be adopted, we envision that certain key requirements in today's proposal would be maintained. For example, persons claiming the exclusion would be required to submit a one-time notification to the appropriate State or EPA Region, as proposed today in 40 CFR 261.2(g)(4). Persons handling these materials would also be required to comply with the existing requirements for speculative accumulation (see 40 CFR 261.1(c)(8) and 261.2(c)(4)). We generally impose these limits when we issue conditional exclusions from the definition of solid waste, to help ensure that secondary materials are actually recycled.

In addition, to ensure protection of human health and the environment, it might be appropriate to impose additional requirements or conditions beyond those included for the intra-industry option discussed in section III.A of this preamble. For example, more frequent reporting and recordkeeping requirements might be appropriate, similar to those types of conditions included in EPA's recently-promulgated rulemaking for zinc fertilizers made from hazardous secondary materials (*see* 67 FR 48393, July 24, 2002). Alternatively, recordkeeping approaches as discussed in section III.A.8. of today's rule could provide additional safeguards through monitoring and documentation. Additional safeguards on storage or handling (*e.g.*, a ban on land placement,



or requiring a tracking system for off-site shipments) might also be appropriate to ensure environmental protection and/or assist regulatory agencies in their oversight efforts.

Regulatory text implementing such a broader exclusion for legitimately reclaimed materials would be codified in 40 CFR 261.4(a), which lists a series of exclusions from the definition of solid waste. Specifically, a new exclusion would be added at 40 CFR 261.4(a), stating that secondary materials that are legitimately recycled by reclamation are not solid wastes, provided that certain conditions are met. The exclusion would include a notification requirement identical to that set out in 40 CFR 261.2(g)(4) of the regulatory text proposed today for the intra-industry option, except that identification of the industry would not be required. The exclusion would also include a requirement prohibiting speculative accumulation identical to that set out in 40 CFR 261.2(g)(3)(ii) of the regulatory text proposed today for the intra-industry option. If it were determined appropriate to express the legitimacy principles for this broader exclusion as regulatory requirements, the exclusion would restate the legitimacy criteria proposed today in 40 CFR 261.2(h), and would specify that each of the four criteria must be met. If it were determined appropriate to apply today's proposed legitimacy criteria to this broader option, restating the criteria would not be necessary because 40 CFR 261.2(h) as proposed would apply to all recycling (including materials subject to the broader exclusion).

The regulatory text for this broader exclusion would also include a provision specifying that materials used in a manner constituting disposal, materials burned for energy recovery, and inherently waste-like materials are not eligible for the exclusion. This provision would be identical to that set out in 40 CFR 261.2(g)(1)(i)–(3) of the regulatory text proposed today. Finally, the text for the broader exclusion would (if deemed necessary) include a provision specifying any additional reporting and any recordkeeping requirements applied to the exclusion, and any other conditions determined appropriate to protect human health and the environment.

EPA seeks comment on the potential advantages and disadvantages of the broader regulatory exclusion for reclaimed materials described above. Specifically, we request comment on the increased recycling and reuse that would result from broadening the rule in this way, as well as comment on the potential effects to human health and

the environment. We also request comment on whether the legitimacy criteria proposed today would be sufficient to ensure that only real recycling and reuse would be exempted under such a provision, and on whether the proposed criteria should be reformulated into more prescriptive regulatory requirements. We are further interested in whether a case-by-case variance mechanism (*i.e.*, analogous to the existing provision for variances from classification as a solid waste—*see* 40 CFR 260.30) would be a more appropriate means of providing the type of regulatory relief for reclaimed materials that would flow from a broader exclusion based on legitimate recycling. Finally, we request comment on any additional requirements, restrictions or conditions that should be added to such a broader exclusion. The Agency will carefully consider all comments received on this regulatory option in determining the appropriate scope of the final rule.

#### **V. Effect of Today's Proposal on Other Programs**

##### *A. Exports and Imports*

The 40 CFR 261.2(g) exclusion in today's proposed rule for materials that are recycled "intra-industry" does not place any geographic restrictions on movements of such materials, provided they remain within the generating industry. It is therefore possible that in some cases excluded materials could be generated in the United States and subsequently exported for reclamation to a facility in a foreign country that is in the same industry that generated the material. Under today's proposal, the exclusion would be effective while the excluded material is within the United States. However, such excluded materials may be subject to regulation as hazardous wastes in the receiving country, even if they are excluded from the definition of solid waste domestically (*i.e.*, under RCRA). If this is the case, the U.S. exporter of the excluded material will need to comply with any applicable requirements of the importing country.

It is also important to note that there is an international agreement regarding imports and exports of hazardous wastes and other wastes that can affect international waste shipments. As of November 2002, 152 countries are Parties to the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal ("Basel Convention"). The Basel Convention prohibits transboundary movements of Basel-controlled hazardous and other wastes

between Parties and non-Parties, unless a Party and a non-Party have concluded a separate agreement pursuant to Article 11 of the Basel Convention. The United States signed the Basel Convention in 1990, but has not ratified it and therefore is not a party to the Convention. The United States is a party to two bilateral agreements and one multilateral agreement governing exports of RCRA-defined hazardous wastes. The 1986 "Agreement Between the Government of United States of America and the Government of Canada Concerning the Transboundary Movement of Hazardous Waste," and the 1986 "Agreement of Cooperation Between the United Mexican States and the United States of America Regarding the Transboundary Movement of Hazardous Waste and Hazardous Substances" are valid Basel Convention Article 11 bilateral agreements, and the 2001 "Decision C(2001)107 Concerning the Revision of Decision C(92)39 on the Control of Transboundary Movements of Wastes Destined for Recovery Operations" of the Organization for Economic Cooperation and Development (OECD) is a valid Basel Convention Article 11 multilateral agreement among the 30 OECD member countries.

The U.S. government over the last decade has considered ratification of the Basel Convention at various times. In order to ratify the Convention, legislation must be enacted that would amend RCRA to provide new authorities necessary to implement the terms of the Convention fully. The Basel Convention defines "hazardous waste" more broadly than RCRA does, subjecting a larger universe of materials to its jurisdiction. EPA is currently studying options for implementing the Basel Convention, including ways of defining "waste" for import and export purposes. Under various approaches, certain materials that are excluded from the RCRA definition of solid wastes domestically would be regulated for purposes of the Basel Convention when they are exported. Basel Convention protocols would not affect the domestic classification of excluded materials while such materials are physically located within the legal jurisdiction of the United States.

If the U.S. ratifies the Basel Convention, Basel-covered hazardous and other wastes, potentially including certain domestically excluded materials that are exported, would be subject to notice and consent procedures. Furthermore, if such wastes and excluded materials were to be exported to countries with which we do not have Article 11 agreements, EPA would have

to be satisfied that there is no reason to believe the exported wastes and materials would not be managed in an "environmentally sound manner" (ESM) at the receiving facility in the importing country. For example, certain copper plating wastes are excluded from the RCRA definition of solid waste, even though they may exhibit the toxicity characteristic for lead, cadmium, chromium, or even cyanide. If the U.S. were to ratify the Basel Convention, these materials would be subject to the Basel Convention (assuming the importing country defined the materials as hazardous wastes), and the U.S. exporter would be required to comply with notification and consent procedures for the export of the materials. Additionally, if these materials were to be exported to smelters in countries with which we do not have existing Article 11 agreements, such as Chile or Peru, the export would be subject to additional requirements, including ESM determinations by EPA.

Imported Basel Convention hazardous and other wastes that meet domestic exclusions under the definition of solid waste would become subject to their exclusions upon entry into the legal jurisdiction of the United States; however, U.S. importers of such excluded materials may be required to comply with certain Basel Convention requirements if necessary for the U.S. to meet its Basel obligations and/or if the exporting Basel Party requires it. For example, the Basel Convention requires that, "\* \* \* each person who takes charge of a transboundary movement of hazardous wastes or other wastes, sign the movement document upon delivery or receipt of the wastes in question." (Basel Convention Article 6, paragraph 9). Thus, the U.S. importer, transporter(s) and receiving facility would be required to undertake this responsibility for the excluded material when it is imported into the United States.

### B. Superfund

A primary purpose of today's proposed rule is to encourage safe, beneficial recycling of hazardous secondary materials. In 1999, Congress enacted the Superfund Recycling Equity Act (SREA), explicitly defining those hazardous substance recycling activities that potentially may be exempted from liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA section 9627. Today's proposed rule does not change the universe of recycling activities that could be exempted from CERCLA liability pursuant to CERCLA section 127.

Today's proposed rule only changes the regulatory definition of solid waste for purposes of implementing the RCRA Subtitle C regulatory requirements. The proposed rule also does not limit or otherwise affect EPA's ability to pursue potentially responsible persons under section 107 of CERCLA for releases or threatened releases of hazardous substances.

## VI. State Authority

### A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer the RCRA Subtitle C hazardous waste program within the state. Following authorization, EPA retains Subtitle C enforcement authority, although authorized states have primary enforcement responsibility. EPA retains (and does not delegate) authority under sections 3007, 3008(h), 3013 and 7003. The standards and requirements for state authorization are found at 40 CFR part 271.

Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a State with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities in that State, since only the State was authorized to issue RCRA permits. When new, more stringent Federal requirements were promulgated, the State was obligated to enact equivalent authorities within specified time frames. However, the new Federal requirements did not take effect in an authorized state until the State adopted the Federal requirements as state law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized States at the same time that they take effect in unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized States, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA related provisions as State law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

Authorized states are required to modify their programs only when EPA enacts Federal requirements that are

more stringent or broader in scope than existing Federal requirements. RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program (*see also* 40 CFR 271.1). Therefore, authorized States may, but are not required to, adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous Federal regulations.

### B. Effect on State Authorization

Today's proposed rule is less stringent than the current federal program. Because states are not required to adopt less stringent regulations, they do not have to adopt the exclusions being proposed, although EPA encourages them to do so. If a state's standards for the materials discussed here are less stringent than those in today's proposed rule, the state will need to amend its regulations to make them equivalent to today's standards and pursue authorization.

### C. Interstate Transport

Because some states may choose not to seek authorization for today's proposed rulemaking, there will probably be cases where the materials in question will be transported through states with different regulations governing these wastes.

First, a waste which is subject to an exclusion from the definition of solid waste regulations may be sent to a state, or through a state, where it is subject to the full hazardous waste regulations. In this scenario, for the portion of the trip through the originating state, and any other states where the waste is excluded, neither a hazardous waste transporter with an EPA identification number per 40 CFR 263.11 nor a manifest would be required. However, for the portion of the trip through the receiving state, and any other states that do not consider the waste to be excluded, the transporter must have a manifest, and must move the waste in compliance with 40 CFR part 263. In order for the final transporter and the receiving facility to fulfill the requirements concerning the manifest (40 CFR 263.20, 263.21, 263.22, 264.71, 264.72, 264.76 or 265.71, 265.72, and 265.76), the initiating facility should complete a manifest and forward it to the first transporter to travel in a state where the waste is not excluded. The receiving facility must then sign the manifest and send a copy to the initiating facility. EPA recommends that the initiating facility note in block 15 of the manifest (Special Handling Instructions and Additional

Information) each state where the wastes are not covered by an exclusion.

Second, a hazardous waste generated in a state which does not provide an exclusion for the waste may be sent to a state where it is excluded. In this scenario, the waste must be moved by a hazardous waste transporter while the waste is in the generator's state or any other states where it is not excluded. The initiating facility would complete a manifest and give copies to the transporter as required under 40 CFR 262.23(a). Transportation within the receiving state and any other states that exclude the waste would not require a manifest and need not be transported by a hazardous waste transporter. However, it is the initiating facility's responsibility to ensure that the manifest is forwarded to the receiving facility by any non-hazardous waste transporter and sent back to the initiating facility by the receiving facility (see 40 CFR 262.23 and 262.42).

Third, a waste may be transported across a state in which it is subject to the full hazardous waste regulations although other portions of the trip may be from, through, and to states in which it is excluded. Transport through the State must be conducted by a hazardous waste transporter and must be accompanied by a manifest. In order for the transporter to fulfill its requirements concerning the manifest (subpart B of part 263), the initiating facility must complete a manifest as required under the manifest procedures and forward it to the first transporter to travel in a state where the waste is not excluded. The transporter must deliver the manifest to, and obtain the signature of, either the next transporter or the receiving facility.

As more states streamline their regulatory requirements for these wastes, the complexity of interstate transport will be reduced.

## VII. Statutory and Executive Order Reviews

### A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735), the Agency must determine whether this regulatory action is "significant" and therefore subject to formal review by the Office of Management and Budget (OMB) and to the requirements of the Executive Order, which include assessing the costs and benefits anticipated as a result of the proposed regulatory action. The Order defines "significant regulatory action" as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the

economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the Agency has determined that today's proposed rule is a significant regulatory action because this proposed rule may have an annual effect on the economy of \$100 million or more. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the docket to today's proposal.

To estimate the cost savings, incremental costs, economic impacts and benefits from this rule to affected regulated entities, we completed an economic analyses for this rule. Copies of these analyses (entitled "Economic Assessment of the Association of Battery Recyclers Proposed Rule") have been placed in the RCRA docket for public review. The Agency solicits comment on the methodology and results from the analysis as well as any data that the public feels would be useful in a revised analysis.

#### 1. Methodology

To estimate the cost savings, incremental costs, economic impacts and benefits of this rule, the Agency estimated both the affected volume of hazardous secondary materials and affected entities. The Agency has evaluated a baseline (pre-regulatory) scenario based on prior management practice in the 1997 and 1999 Biennial Reporting System database. The Agency identified on-site recycling or recycling that occurred offsite between facilities with the same 4 digit SIC code.<sup>17</sup> Entities that reclaimed hazardous wastes in 1997 but abandoned (e.g., landfilled or incinerated) in 1999 are modeled to abandon their waste in the

<sup>17</sup> Note: The Standard Industrial Classification (SIC) system was the predecessor to the North American Industrial Classification System (NAICS) that the Agency is using to define industry today. Because only the SIC code as a data element was reported in the 1997 and 1999 BRS, EPA is using 4 digit SIC codes as a proxy for the 4 digit NAICS code with the exception of the definitions of petroleum and mineral processing which remain as previously described and are discussed above in this proposal.

1999 baseline and reclaim post-rule. Entities that reclaim in the 1999 baseline are modeled to continue reclaiming at lower costs. EPA has also evaluated regulated entities that recycled their waste off-site at facilities outside of their industry, generally commercially established hazardous waste treatment facilities. Finally, the Agency has evaluated entities that have land disposed of wastes that may be technically and economically recycleable under today's proposal.

EPA has estimated incremental costs and costs savings for affected entities through comparing hazardous waste management costs in the 1999 baseline (whether recycled or abandoned) with the cost of reclaiming these secondary materials as excluded from RCRA jurisdiction. To do this, the Agency examined two options as previously described above as Co-Proposal Option # 1 and Co-Proposal Option # 2. Option 1 provides that hazardous secondary materials that are recycled within the same generating industry are not solid wastes under RCRA irrespective of whether the recycling facility also receives wastes from other industries. By contrast, Option 2 limits the scope of the exclusion to facilities that solely recycle hazardous secondary materials from within the same generating industry and do not receive waste from other industries.

The benefits from today's proposed rulemaking are presented qualitatively. EPA solicits comment on the need and means to evaluate more quantitative benefits from today's rule.

#### 2. Results

##### a. Volume

The estimated volume of secondary materials affected by this rulemaking for Option 1 are 1570 thousand tons. Of this total 1506 thousand tons of material are recycled onsite and 64 thousand tons of material recycled offsite. This volume of material is generated by 1749 affected plants. For Option 2 the estimated volume is 1534 thousand tons. Because it is possible for the affected volume of hazardous waste to be either higher or lower than the estimated volume, EPA notes that the estimated cost savings and impacts to affected entities could be greater or smaller as well. The Agency solicits comment on how it should adjust its methodology to account for this uncertainty and whether it would be more appropriate to use a range than this value.

##### b. Cost/Economic Impact

For Option 1, EPA has estimated the average annual cost savings from this

rulemaking at \$178 million. For Option 2, EPA has estimated this amount at \$172 million. These cost savings for both those who are modeled to switch to recycling and those who currently recycle either on-site or within the same industry comes from reduced administrative costs, transportation costs, disposal/management costs, state hazardous waste taxes, contingency planning costs and increased salvage revenue (for entities that shift from disposal to recycling). The Agency notes that the cost saving results are relatively sensitive (*i.e.*, change with) to the proportion of entities and volumes that are modeled to shift from disposal to recycling. In particular, the estimated cost savings in this rulemaking for entities that shift from treatment and disposal to recycling are much higher on a per ton basis due to the disposal cost avoided by recycling and the salvage revenue of the reclaimed product. Salvage revenue is the market price of the reclaimed material less the cost of recycling it. The Agency also notes that it has only been able to evaluate a portion of those entities in the Biennial Reporting Systems 1997 and 1999 database who potentially may elect to shift from disposal to recycling. And although there is uncertainty inherent in estimating these cost savings for both entities that are modeled to recycle pre-rule and post-rule, as well as those who are modeled to shift from disposal to recycling, the Agency notes that the potential magnitude of this uncertainty is greater in those who are modeled to shift from disposal to recycling both because the cost savings are more sensitive to these volumes and because the coverage of these types of entities is less complete than it is for those who currently recycle. EPA solicits comment on additional methodologies, sources of data or other information that would help to minimize this uncertainty in prospective analysis.

To estimate the economic impact of this proposed rule, the Agency evaluated the cost savings or incremental costs as a percentage of firm sales. In virtually all cases, economic impacts are cost savings and are less than one percent of firm sales. The average cost savings for an affected entity that either recycles onsite or within the same industry in the 1999 BRS or did so in the 1997 and is projected to shift back to recycling post-rule from this proposal for both Options ranges from \$4 thousand to \$150 thousand annually.

### c. Benefits

EPA has evaluated the qualitative benefits and to a lesser extent, the quantitative benefits of the proposed revisions to the definition of solid waste. Some of the benefits resulting from today's rule include conservation of landfill capacity, increase in resource efficiency, growth of a recycling infrastructure and development of innovative technologies for affected secondary materials. EPA estimates that approximately 425 thousand tons or over 460 thousand cubic feet of secondary materials would be redirected away from landfills towards recycling under the Agency's proposal today. In addition, as mentioned above, the use of secondary materials generated onsite or within the same industry benefits the manufacturer by mitigating the need to purchase expensive virgin feed materials. This rule will facilitate the growth and development of the innovative recycling technologies in the United States by reducing regulatory barriers to new technologies becoming established.

The Agency acknowledges that some 1500 thousand tons of hazardous secondary materials would be no longer subject to regulation as hazardous waste under subtitle C of RCRA under this proposal. As part of today's proposal, EPA has not evaluated any potential for changes resulting in either higher or lower releases to the environment of hazardous constituents from different handling methods for affected secondary materials. The Agency notes that most hazardous waste that is currently recycled is stored in tanks, containers or buildings prior to the reclamation process. And this practice is likely to continue post-rule both because most affected entities have already purchased these storage units and as a means of avoiding legal liability for releases to groundwater from land based units (materials excluded from RCRA subtitle C regulation if recycled under this proposal would still be considered hazardous wastes if released to the environment and then abandoned). Also, residuals from excluded recycling processes would still be considered hazardous wastes if they exhibit a hazardous characteristic and are discarded.<sup>18</sup> However, residuals from formerly listed hazardous wastes would not be considered hazardous wastes under the derived-from rule if recycled

<sup>18</sup> Note, characteristic sludges and byproducts from recycling processes that are themselves recycled are not solid wastes or hazardous wastes currently (40 CFR 261.2(c)(3)) and would not be under today's proposal.

under this proposal. In such cases, these residuals could be land disposed in units other than hazardous waste landfills. The Agency has not evaluated the potential for such management of these materials to result in a change in releases to the environment.

### B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 2106.01) and a copy may be obtained from Susan Auby by mail at U.S. Environmental Protection Agency, Collection Strategies Division (Mail Code 2822), 1200 Pennsylvania Avenue, NW., Washington, DC 20460-0001, by e-mail at [auby.susan@epamail.epa.gov](mailto:auby.susan@epamail.epa.gov), or by calling (202) 260-4901. A copy may also be downloaded off the internet at <http://www.epa.gov/icr>.

Under Section 3001 of RCRA, Congress directed EPA to promulgate regulations identifying the characteristics of hazardous waste and listing particular hazardous wastes. The proposed exclusion, when finalized, will be self-implementing. Notification of a facility's basis for claiming the exclusion would allow authorized States or EPA Regions to more effectively render assistance to recyclers wishing to ensure that their operations are within the exclusion. In addition, persons claiming to be excluded from hazardous waste regulation because they are engaged in recycling must be able to demonstrate that the recycling is legitimate. These demonstration criteria are comparable to, if not more streamlined than, the existing guidance. Following are the affected ICRs, along with a brief description of relevant assumptions:

Manifest ICR (EPA ICR Number 801): All claimants are expected to be relieved of manifesting their excluded waste under the proposal. O&M costs are associated with postage for sending and returning copies of the manifest forms.

Generator Standards ICR (EPA ICR Number 820): Large quantity generators (LQGs) generating excluded waste under 40 CFR 261.2(g) are expected to become small quantity generators (SQGs) under the rule, *i.e.*, their excluded waste will not count toward their generator status determinations. SQGs are subject to less burdensome paperwork requirements than LQGs. O&M costs are associated with postage for sending various documents to EPA.

Biennial Report ICR (EPA ICR Number 976): Claimants are expected to be relieved of the need to prepare a Waste Generation and Management (GM) Form for their excluded materials. Destination facilities will be relieved of the need to prepare a Waste Received from Off-Site (WR) Form. O&M costs are associated with maintaining copies of GM and WR Forms.

Specific Units ICR (EPA ICR Number 1572): EPA assumes that recyclers with a storage permit will be relieved of the need to comply with their permit conditions for their storage units, if they receive and recycle only hazardous materials generated, reclaimed, and legitimately reused within their same four digit NAICS code. Based on 1999 BRS data, EPA estimates that each year approximately 12 recyclers would be relieved of these requirements.

Part B ICR (EPA ICR Number 1573): EPA assumes that recyclers with a storage permit will be relieved of the need for a permit under the rule, if they receive and recycle only hazardous materials generated, reclaimed, and legitimately reused within their same four digit NAICS code. Based on 1999 BRS data, EPA estimates that each year approximately 12 recyclers would be relieved of the requirement to renew their permit.

EPA estimates the total annual burden to respondents to be approximately 226 hours and \$7,018. The total bottom-line burden to respondents over three years is estimated to be approximately 678 hours and \$21,054. EPA estimates the total annual aggregate burden savings to respondents to be approximately 15,985 hours and \$531,169. The total bottom-line burden savings over three years is estimated to be approximately 47,955 hours and \$1,593,507. EPA estimates the total annual burden to the Agency under the proposed rule to be about 260 hours and \$10,807. The total bottom-line burden to the Agency over three years is estimated to be about 780 hours and \$32,421.

EPA believes the proposed notification requirement is needed to ensure safe and compliant management of waste. Because the exclusion at 40 CFR 261.2(g) is self-implementing, EPA believes that submittal of the notification is necessary to inform the regulatory agency of the exclusion claim and the claimant's excluded waste. As shown in Exhibit 3 of ICR No. 2106.01, EPA believes the notification requirement would result in only a minor burden to respondents. This burden would be greatly offset by the expected savings for no longer complying with the existing RCRA

paperwork requirements for the excluded waste. The public reporting burden from the notification requirement is estimated to be about 30 minutes per respondent. This time includes reading the rule and preparing/submitting the one-time notification. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, Collection Strategies Division; U.S. Environmental Protection Agency (2823); 1200 Pennsylvania Avenue NW., Washington, DC 20460-0001; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. NW., Washington, DC 20503, marked "Attention: Desk Officer for EPA." Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after October 28, 2003, a comment to OMB is best assured of having its full effect if OMB receives it by November 28, 2003. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

#### *C. Regulatory Flexibility Act*

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 generally requires an agency to prepare a regulatory flexibility analysis of any rule

subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that has fewer than 1000 or 100 employees per firm depending upon the SIC code the firm primarily is classified; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

The economic impact analysis conducted for today's proposal indicates that these revisions to the definition of solid waste would generally result in savings to affected entities compared to baseline requirements. The rule is not expected to result in a net cost to any affected entity. Thus, adverse impacts are not anticipated.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

#### *D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for the proposed and final rules with "federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year.

Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least

costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enable officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The Agency's analysis of compliance with the Unfunded Mandates Reform Act (UMRA) of 1995 found that today's proposed rule imposes no enforceable duty on any State, local or tribal government or the private sector. This proposed rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. In addition, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. The Act generally excludes from the definition of "federal intergovernmental mandate" (in sections 202, 203, and 205) duties that arise from participation in a voluntary Federal program. Today's proposed rule is voluntary, and because it is less stringent than the current regulations, state governments are not required to adopt the proposed changes. The UMRA generally excludes from the definition of "Federal intergovernmental mandate" duties that arise from participation in a voluntary Federal program. The UMRA also excludes from the definition of "Federal private sector mandate" duties that arise from participation in a voluntary Federal program. Therefore we have determined that today's proposal is not subject to the requirements of sections 202 and 205 of UMRA.

#### *E. Executive Order 13132: Federalism*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. "Policies that have federalism implications" is defined in the Executive Order to include

regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. This proposed rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175.

#### *G. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks*

Executive Order 13045: "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Order has the potential to influence the regulation. This proposed rule defines some of the limits of EPA's regulatory jurisdiction under Subtitle C of RCRA. It is not based on any analysis of health or safety risks. EPA believes that it is not subject to Executive Order 13045.

#### *H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Today's proposed rule excludes secondary materials reclaimed within the generating industry from RCRA Subtitle C jurisdiction. By encouraging reuse and recycling, the rule may save energy costs associated with manufacturing new materials. It will not cause reductions in supply or production of oil, fuel, coal, or electricity. Nor will it result in increased energy prices, increased cost of energy distribution, or an increased dependence on foreign supplies of energy.

#### *I. National Technology Transfer and Advancement Act of 1995*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This rule does not establish technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

**List of Subjects****40 CFR Part 260**

Administrative practices and procedure, Confidential business information, Hazardous waste.

**40 CFR Part 261**

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

Dated: October 20, 2003.

**Marianne Lamont Horinko**,  
*Acting Administrator.*

For the reasons set forth in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as follows:

**PART 260—HAZARDOUS WASTE  
MANAGEMENT SYSTEM: GENERAL**

**Subpart C—[Amended]**

1. The authority citation for part 260 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921–6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

2. Section 260.30 is amended by removing and reserving paragraph (b), and by revising paragraph (c) to read as follows:

**§ 260.30 Variances from classification as solid wastes.**

\* \* \* \* \*

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered. If the materials are reclaimed as part of a continuous process within the generating industry, they are subject to the exclusion in § 261.2(g) rather than the standards and criteria listed in § 261.31(c).

**§ 260.31 [Amended]**

3. Section 260.31 is amended by removing and reserving paragraph (b).

**PART 261—IDENTIFICATION AND  
LISTING OF HAZARDOUS WASTE**

**Subpart A—[Amended]**

4. The authority citation for part 261 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

5. Section 261.2 is amended by:

a. Revising the heading for Column 3 of Table 1 in paragraph (c)(4) to read: Reclamation (261.2(c)(3)), except for materials marked with an “\*” that are generated and reclaimed in a continuous process within the generating industry, as provided in § 261.2(g).

b. Revising paragraph (c)(3).  
c. Removing paragraph (e)(1)(iii).  
d. Adding paragraphs (g) and (h).  
The revisions and additions read as follows:

**§ 261.2 Definition of solid waste.**

\* \* \* \* \*

(c) \* \* \*

(3) Reclaimed. Materials noted with a “-” in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an “\*” in column 3 of Table 1 are solid wastes except when generated and reclaimed in a continuous process within the same industry, as provided in paragraph (g) of this section.

\* \* \* \* \*

(g) *Hazardous secondary materials generated and reclaimed in a continuous process within the same industry.* (1) Spent materials, listed sludges and listed by-products that are identified in paragraph (c)(3) of this section and accompanying Table 1 of this section are not discarded, and therefore are not solid wastes, if they are generated and reclaimed in a continuous process within the same industry. This exclusion does not apply, however, to the following materials:

(i) Materials that are inherently waste-like, as provided in paragraph (d) of this section.

(ii) Materials used in a manner constituting disposal, or used to produce products that are applied to the land, as provided in paragraph (c)(1) of this section.

(iii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels, as provided in paragraph (c)(2) of this section.

**Option 1 for Paragraph (g)(2)**

(2) For the purposes of this paragraph:

(i) Both the generation and reclamation of the hazardous secondary materials must occur within a single industry listed in Appendix X of this Subpart. Such reclamation may involve one or more processing steps, provided that all steps take place within the same industry in which the secondary material was generated, and that such reclamation produces a product or ingredient that is used or reused without further reclamation. Reclamation steps need not take place at the site where the material was generated, provided such reclamation activities take place within the generating industry.

(ii) If such reclamation produces any materials that are sent to a different industry for further reclamation, those materials will not be eligible for the exclusion in paragraph (g)(1) of this section. This would not, however, affect

the exclusion for other materials that are generated and reclaimed within the same industry.

(iii) The guidelines and industry classifications specified in Appendix X of this Part must be used to identify the appropriate industry classification of each establishment that generates or reclaims materials excluded under this paragraph (g). An “establishment” for the purpose of this paragraph is an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed. An establishment is the smallest such unit for which records provide information on the cost of resources, materials, labor and capital employed to produce the units of output.

(iv) Facilities comprised solely of establishments engaged in waste management services are in industries not eligible for this exclusion. This includes facilities with establishments classified under NAICS Codes 5621, 5622, or 5629, and any other facility that reclaims secondary materials received from off-site generators, and that does not produce any products made from non-secondary materials. Hazardous secondary materials sent to these facilities are not considered to be generated and reclaimed in a continuous process within the same industry.

(v) If, using the guidelines in Appendix X of this Part, it is not clear whether a reclamation unit, process, or activity is part of the same industry in which the material was generated, then the generation and reclamation of these materials will be presumed to occur within the same industry, provided that the reclamation unit, process, or activity is located on-site (as defined in § 260.10) with respect to the process that generated the material.

**Option 2 for Paragraph (g)(2)**

(2) For the purposes of this paragraph:

(i) Both the generation and reclamation of the hazardous secondary materials must occur within a single industry listed in Appendix X of this Subpart. Such reclamation may involve one or more processing steps, provided that all steps take place within the same industry in which the secondary material was generated, and that such reclamation produces a product or ingredient that is used or reused without further reclamation. Reclamation steps need not take place at the site where the material was generated, provided such reclamation activities take place within the generating industry.

(ii) If such reclamation produces any materials that are sent to a different industry for further reclamation, those materials will not be eligible for the exclusion in paragraph (g)(1) of this section. This would not, however, affect



(ii) If such reclamation produces any materials that are sent to a different industry for further reclamation, those materials will not be eligible for the exclusion in paragraph (g)(1). This would not, however, affect the exclusion for other materials that are generated and reclaimed within the same industry.

(iii) The guidelines and industry classifications specified in Appendix X of this Part must be used to identify the appropriate industry classification of each establishment that generates or reclaims materials excluded under this paragraph (g). An "establishment" for the purpose of this paragraph is an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed. An establishment is the smallest such unit for which records provide information on the cost of resources, materials, labor and capital employed to produce the units of output.

(iv) Facilities comprised solely of establishments engaged in waste management services are in industries not eligible for this exclusion. This includes facilities with establishments classified under NAICS Codes 5621, 5622, or 5629, and any other facility that reclaims secondary materials received from off-site generators, and that does not produce any products made from non-secondary materials. Hazardous secondary materials sent to these facilities are not considered to be generated and reclaimed in a continuous process within the same industry.

(v) If, using the guidelines in Appendix X of this Part, it is not clear whether a reclamation unit, process, or activity is part of the same industry in which the material was generated, then the generation and reclamation of these materials will be presumed to occur within the same industry, provided that the reclamation unit, process, or activity is located on-site (as defined in § 260.10) with respect to the process that generated the material.

(vi) The exclusion provided under this paragraph for materials that are generated and reclaimed in a continuous process within the same industry does not apply if the reclamation facility also recycles hazardous waste from a different industry.

(3) For the purpose of this paragraph, materials are generated and reclaimed in a continuous process if:

(i) The materials are not handled by any entity or facility outside of the generating industry, except for a transporter; and

(ii) The materials are not speculatively accumulated, as defined in § 261.1(c)(8).

(4) Generators of secondary materials that have previously been subject to regulation as hazardous wastes, but which will be excluded from regulation under this paragraph, must send a one-time notification to the Regional Administrator. The notification must identify the name, address, and EPA ID number (if applicable) of the generator facility; the name and phone number of a contact person; the type of material that will be excluded; and the industry that generated the material, as classified according to Appendix X of this Part.

(h) *Legitimate Recycling.* Materials that are not legitimately recycled are discarded and are solid wastes. Persons who recycle hazardous wastes, as well as persons claiming to be excluded from hazardous waste regulation under § 261.2 or § 261.4(a) because they are engaged in recycling, must be able to demonstrate that the recycling is legitimate. Moreover, hazardous wastes must be legitimately recycled to qualify for special management standards under 40 CFR 261.6 and 40 CFR Part 266. Determinations as to the legitimacy of specific recycling activities must be made by considering whether:

(1) The secondary material to be recycled is managed as a valuable commodity. Where there is an analogous raw material, the secondary material should be managed in a manner consistent with the management of the raw material. Where there is no analogous raw material, the secondary material should be managed to minimize the potential for releases to the environment.

(2) The secondary material provides a useful contribution to the recycling process or to a product of the recycling process and evaluating this criterion should include consideration of the economics of the recycling transaction. The recycling process itself may involve reclamation, or direct reuse without reclamation.

(3) The recycling process yields a valuable product or intermediate that is:

(i) Sold to a third party; or

(ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient in an industrial process.

(4) The product of the recycling process:

(i) Does not contain significant amounts of hazardous constituents that are not found in analogous products; and

(ii) Does not contain significantly elevated levels of any hazardous

constituents that are found in analogous products; and

(iii) Does not exhibit a hazardous characteristic that analogous products do not exhibit.

6. Section 261.4 is amended by removing and reserving paragraphs (a)(6) and (a)(8), and by revising paragraphs (a)(7), (a)(10), (a)(11), (a)(13), (a)(14), (a)(17) introductory text and (a)(19) and by adding paragraph (a)(9)(iii)(F) to read as follows:

#### § 261.4 Exclusions.

(a) \* \* \*

(6) [Reserved]

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in § 261.1(c). Spent sulfuric acid that is reclaimed to produce virgin sulfuric acid in a continuous process within the generating industry is subject to the exclusion in § 261.2(g), rather than this paragraph.

(8) [Reserved]

(9) \* \* \*

(iii) \* \* \*

(F) If the products of this recycling practice are not used in a manner constituting disposal, the spent wood preserving solutions are subject to the exclusion in § 261.2(g), rather than this paragraph, provided the wood preserving solutions are generated and reclaimed in a continuous process within the same industry.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-product processes that are hazardous only because they exhibit the Toxicity Characteristic (TC) specified in § 261.24 when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the coal tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar. If the wastes described above in this paragraph are reclaimed and recycled in a continuous process within the generating industry and are not burned for energy recovery, they are subject to the exclusion in § 261.2(g), rather than this paragraph.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery. If the residue is reclaimed as part of a continuous process within the generating industry,



it is subject to the exclusion in § 261.2(g), rather than this paragraph.

\* \* \* \* \*

(13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled. If the scrap metal is recycled in a continuous process within the generating industry, it is subject to the exclusion in § 261.2(g), rather than this paragraph.

(14) Shredded circuit boards being recycled provided that they are stored in containers sufficient to prevent a release to the environment prior to recovery; and free of mercury switches, mercury relays and nickel-cadmium or lithium batteries. Shredded circuit boards that are reclaimed in a continuous process within the generating industry are subject to the exclusion in § 261.2(g), rather than this paragraph.

\* \* \* \* \*

(17) Spent materials (as defined in § 261.1) (other than hazardous wastes listed in subpart D of this part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by beneficiation, provided that:

\* \* \* \* \*

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in § 261.1(c). Such spent caustic solutions that are reclaimed in a continuous process within the generating industry are subject to the exclusion in § 261.2(g), rather than this paragraph.

\* \* \* \* \*

7. Part 261 is amended by adding new Appendix X, to read as follows:

**Appendix X to Part 261—Industries for the Purpose of § 261.2(g)**

(a) This Appendix defines “industry” for the purposes of § 261.2(g). It does not affect other industry definitions within 40 CFR Parts 260 through 283.

(b) Primary Mineral Processing Industry. For the purpose of this Appendix, an establishment falls within the primary mineral processing industry if it: (1) involves operations that follow beneficiation of an ore or mineral; (2) serves to remove the desired product from or enhance the characteristics of and ore or mineral or a beneficiated ore or mineral; (3) uses feedstock that is comprised of less than 50 percent scrap materials; (4) produces either a final or an intermediate to the final mineral product, and (5) does not combine the mineral product with another material that is not an ore or mineral, or beneficiated ore or mineral (e.g., alloying) and does not involve fabrication or other manufacturing activities.

(c) Petroleum Refining Industry. This industry is defined as petroleum refining, exploration, production and bulk storage, and transportation incident thereto, as specified in 40 CFR 261.4(a)(12).

(d) All other industries are classified using the following categories; these classifications must be made in accordance with the reference document “North American Industry Classification System” or NAICS, effective January 1, 2002:

1111 Oilseed and Grain Farming  
 1112 Vegetable and Melon Farming  
 1113 Fruit and Tree Nut Farming  
 1114 Greenhouse, Nursery, and Floriculture Production  
 1119 Other Crop Farming  
 1121 Cattle Ranching and Farming  
 1122 Hog and Pig Farming  
 1123 Poultry and Egg Production  
 1124 Sheep and Goat Farming  
 1125 Animal Aquaculture  
 1129 Other Animal Production  
 1131 Timber Tract Operations  
 1133 Logging  
 1141 Fishing  
 1142 Hunting and Trapping  
 1151 Support Activities for Crop Production  
 1152 Support Activities for Animal Production  
 1153 Support Activities for Forestry  
 2111 Oil and Gas Extraction  
 2121 Coal Mining,  
 2122 Metal Ore Mining  
 2123 Nonmetallic Mineral Mining and Quarrying  
 2131 Support Activities for Mining  
 2211 Electric Power Generation, Transmission and Distribution  
 2212 Natural Gas Distribution  
 2213 Water, Sewage and Other Systems  
 2361 Residential Building Construction  
 2362 Nonresidential Building Construction  
 2371 Utility System Construction  
 2372 Land Subdivision  
 2379 Other Heavy and Civil Engineering Construction  
 2381 Foundation, Structure, and Building Exterior Contractors  
 2382 Building Equipment Contractors  
 2383 Building Finishing Contractors  
 2389 Other Specialty Trade Contractors  
 3111 Animal Food Manufacturing  
 3112 Grain and Oilseed Milling  
 3113 Sugar and Confectionery Product Manufacturing  
 3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing  
 3115 Dairy Product Manufacturing  
 3116 Animal Slaughtering and Processing  
 3117 Seafood Product Preparation and Packaging  
 3118 Bakeries and Tortilla Manufacturing  
 3119 Other Food Manufacturing  
 3121 Beverage Manufacturing  
 3122 Tobacco Manufacturing  
 3131 Fiber, Yarn, and Thread Mills  
 3132 Fabric Mills  
 3133 Textile and Fabric Finishing and Fabric Coating Mills  
 3141 Textile Furnishings Mills  
 3149 Other Textile Product Mills  
 3151 Apparel Knitting Mills  
 3152 Cut and Sew Apparel Manufacturing  
 3159 Apparel Accessories and Other Apparel Manufacturing

3161 Leather and Hide Tanning and Finishing  
 3162 Footwear Manufacturing  
 3169 Other Leather and Allied Product Manufacturing  
 3211 Sawmills and Wood Preservation  
 3212 Veneer, Plywood, and Engineered Wood Product Manufacturing  
 3219 Other Wood Product Manufacturing  
 3221 Pulp, Paper, and Paperboard Mills  
 3222 Converted Paper Product Manufacturing  
 3231 Printing and Related Support Activities  
 3241 Petroleum and Coal Products Manufacturing<sup>1</sup>  
 3251 Basic Chemical Manufacturing  
 3252 Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing  
 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing  
 3254 Pharmaceutical and Medicine Manufacturing  
 3255 Paint, Coating, and Adhesive Manufacturing  
 3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing (except for third-party operations that reclaim dry cleaning fluids at sites that do not conduct dry-cleaning).  
 3259 Other Chemical Product and Preparation Manufacturing (except for third-party operations that reclaim degreasing solvents at sites that do not conduct degreasing operations).  
 3261 Plastics Product Manufacturing  
 3262 Rubber Product Manufacturing  
 3271 Clay Product and Refractory Manufacturing  
 3272 Glass and Glass Product, Manufacturing  
 3273 Cement and Concrete Product Manufacturing  
 3274 Lime and Gypsum Product Manufacturing  
 3279 Other Nonmetallic Mineral Product Manufacturing<sup>2</sup>  
 3311 Iron and Steel Mills and Ferro alloy Manufacturing<sup>2</sup>  
 3312 Steel Product Manufacturing from Purchased Steel<sup>2</sup>  
 3313 Alumina and Aluminum Production and Processing<sup>2</sup>  
 3314 Nonferrous Metal (except Aluminum) Production and Processing<sup>2</sup>  
 3315 Foundries  
 3321 Forging and Stamping  
 3322 Cutlery and Handtool Manufacturing  
 3323 Architectural and Structural Metals Manufacturing  
 3324 Boiler, Tank, and Shipping Container Manufacturing  
 3325 Hardware Manufacturing

<sup>1</sup> Although this industry classification may include establishments in the petroleum refining industry, note that as specified in subparagraph (c) of this Appendix, the petroleum refining industry for the purpose of the exclusion in § 261.2(g) is defined at § 261.4(a)(12).

<sup>2</sup> Although this industry classification may include establishments in the mineral processing industry, note that for the purpose of the exclusion provided in § 262.2(g), the mineral processing industry is defined in subparagraph (b) of this appendix.

3326 Spring and Wire Product Manufacturing	4238 Machinery, Equipment, and Supplies Merchant Wholesalers	4869 Other Pipeline Transportation
3327 Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	4239 Miscellaneous Durable Goods Merchant Wholesalers	4871 Scenic and Sightseeing Transportation, Land
3328 Coating, Engraving, Heat Treating, and Allied Activities	4241 Paper and Paper Product Merchant Wholesalers	4872 Scenic and Sightseeing Transportation, Water
3329 Other Fabricated Metal Product Manufacturing	4242 Drugs and Druggists' Sundries Merchant Wholesalers	4879 Scenic and Sightseeing Transportation, Other
3331 Agriculture, Construction, and Mining Machinery Manufacturing	4243 Apparel, Piece Goods, and Notions Merchant Wholesalers	4881 Support Activities for Air Transportation
3332 Industrial Machinery Manufacturing	4244 Grocery and Related Product Wholesalers	4882 Support Activities for Rail Transportation
3333 Commercial and Service Industry Machinery Manufacturing	4245 Farm Product Raw Material Merchant Wholesalers	4883 Support Activities for Water Transportation
3334 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	4246 Chemical and Allied Products Merchant Wholesalers	4884 Support Activities for Road Transportation
3335 Metalworking Machinery Manufacturing	4247 Petroleum and Petroleum Products Merchant Wholesalers	4885 Freight Transportation Arrangement
3336 Engine, Turbine, and Power Transmission Equipment Manufacturing	4248 Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	4889 Other Support Activities for Transportation
3339 Other General Purpose Machinery Manufacturing	4249 Miscellaneous Nondurable Goods Merchant Wholesalers	4911 Postal Service
3341 Computer and Peripheral Equipment Manufacturing	4251 Wholesale Electronic Markets and Agents and Brokers	4921 Couriers
3342 Communications Equipment Manufacturing	4411 Automobile Dealers	4931 Warehousing and Storage
3343 Audio and Video Equipment Manufacturing	4412 Other Motor Vehicle Dealers	5111 Newspaper, Periodical, Book, and Directory Publishers
3344 Semiconductor and Other Electronic Component Manufacturing	4413 Automotive Parts, Accessories, and Tire Stores	5112 Software Publishers
3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	4421 Furniture Stores	5121 Motion Picture and Video Industries
3346 Manufacturing and Reproducing Magnetic and Optical Media	4422 Home Furnishings Stores	5122 Sound Recording Industries
3351 Electric Lighting Equipment Manufacturing	4431 Electronics and Appliance Stores	5151 Radio and Television Broadcasting
3352 Household Appliance Manufacturing	4441 Building Material and Supplies Dealers	5152 Cable and Other Subscription Programming
3353 Electrical Equipment Manufacturing	4442 Lawn and Garden Equipment and Supplies Stores	5161 Internet Publishing and Broadcasting
3359 Other Electrical Equipment and Component Manufacturing	4451 Grocery Stores	5171 Wired Telecommunications Carriers
3361 Motor Vehicle Manufacturing	4452 Specialty Food Stores	5172 Wireless Telecommunications Carriers (except Satellite)
3362 Motor Vehicle Body and Trailer Manufacturing	4461 Health and Personal Care Stores	5173 Telecommunications Resellers
3363 Motor Vehicle Parts Manufacturing	4471 Gasoline Stations	5174 Satellite Telecommunications
3364 Aerospace Product and Parts Manufacturing	4481 Clothing Stores	5175 Cable and Other Program Distribution
3365 Railroad Rolling Stock Manufacturing	4482 Shoe Stores	5179 Other Telecommunications
3366 Ship and Boat Building	4483 Jewelry, Luggage, and Leather Goods Stores	5181 Internet Service Providers and Web Search Portals
3369 Other Transportation Equipment Manufacturing	4511 Sporting Goods, Hobby, and Musical Instrument Stores	5182 Data Processing, Hosting, and Related Services
3371 Household and Institutional Furniture and Kitchen Cabinet Manufacturing	4512 Book, Periodical, and Music Stores	5191 Other Information Services
3372 Office Furniture (including Fixtures) Manufacturing	4521 Department Stores	5211 Monetary Authorities—Central Bank
3379 Other Furniture Related Product Manufacturing	4529 Other General Merchandise Stores	5221 Depository Credit Intermediation
3391 Medical Equipment and Supplies Manufacturing	4531 Florists	5222 Nondepository Credit Intermediation
3399 Other Miscellaneous Manufacturing	4532 Office Supplies, Stationery, and Gift Stores	5223 Activities Related to Credit Intermediation
4231 Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	4533 Used Merchandise Stores	5231 Securities and Commodity Contracts Intermediation and Brokerage
4232 Furniture and Home Furnishing Merchant Wholesalers	4539 Other Miscellaneous Store Retailers	5232 Securities and Commodity Exchanges
4233 Lumber and Other Construction Materials Merchant Wholesalers	4541 Electronic Shopping and Mail-Order Houses	5239 Other Financial Investment Activities
4234 Professional and Commercial Equipment and Supplies Merchant Wholesalers	4542 Vending Machine Operators	5241 Insurance Carriers
4235 Metal and Mineral (except Petroleum) Merchant Wholesalers	4543 Direct Selling Establishments	5242 Agencies, Brokerages, and Other Insurance Related Activities
4236 Electrical and Electronic Goods Merchant Wholesalers	4811 Scheduled Air Transportation	5251 Insurance and Employee Benefit Funds
4237 Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	4812 Nonscheduled Air Transportation	5259 Other Investment Pools and Funds
	4821 Rail Transportation	5311 Lessors of Real Estate
	4831 Deep Sea, Coastal, and Great Lakes Water Transportation	5312 Offices of Real Estate Agents and Brokers
	4832 Inland Water Transportation	5313 Activities Related to Real Estate
	4841 General Freight Trucking	5321 Automotive Equipment Rental and Leasing
	4842 Specialized Freight Trucking	5322 Consumer Goods Rental
	4851 Urban Transit Systems	5323 General Rental Centers
	4852 Interurban and Rural Bus Transportation	5324 Commercial and Industrial Machinery and Equipment Rental and Leasing
	4853 Taxi and Limousine Service	5331 Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
	4854 School and Employee Bus Transportation	5411 Legal Services
	4855 Charter Bus Industry	5412 Accounting, Tax Preparation, Bookkeeping, and Payroll Services
	4859 Other Transit and Ground Passenger Transportation	5413 Architectural, Engineering, and Related Services
	4861 Pipeline Transportation of Crude Oil	5414 Specialized Design Services
	4862 Pipeline Transportation of Natural Gas	5415 Computer Systems Design and Related Services

- 5416 Management, Scientific, and Technical Consulting Services
- 5417 Scientific Research and Development Services
- 5418 Advertising and Related Services
- 5419 Other Professional, Scientific, and Technical Services
- 5511 Management of Companies and Enterprises
- 5611 Office Administrative Services
- 5612 Facilities Support Services
- 5613 Employment Services
- 5614 Business Support Services
- 5615 Travel Arrangement and Reservation Services
- 5616 Investigation and Security Services
- 5617 Services to Buildings and Dwellings
- 5619 Other Support Services
- Note:** NAICS Category 562, Waste Management and Remediation Services is not included in appendix X.
- 5629 Remediation and Other Waste Management Services
- 6111 Elementary and Secondary Schools
- 6112 Junior Colleges
- 6113 Colleges, Universities, and Professional Schools
- 6114 Business Schools and Computer and Management Training
- 6115 Technical and Trade Schools
- 6116 Other Schools and Instruction
- 6117 Educational Support Services
- 6211 Offices of Physicians
- 6212 Offices of Dentists
- 6213 Offices of Other Health Practitioners
- 6215 Medical and Diagnostic Laboratories
- 6216 Home Health Care Services
- 6219 Other Ambulatory Health Care Services
- 6221 General Medical and Surgical Hospitals
- 6223 Specialty (except Psychiatric and Substance Abuse) Hospitals
- 6231 Nursing Care Facilities
- 6232 Residential Mental Retardation, Mental Health and Substance Abuse Facilities
- 6233 Community Care Facilities for the Elderly
- 6239 Other Residential Care Facilities
- 6241 Individual and Family Services
- 6242 Community Food and Housing, and Emergency and Other Relief Services
- 6243 Vocational Rehabilitation Services
- 6244 Child Day Care Services
- 7111 Performing Arts Companies
- 7112 Spectator Sports
- 7113 Promoters of Performing Arts, Sports, and Similar Events
- 7114 Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
- 7115 Independent Artists, Writers, and Performers
- 7121 Museums, Historical Sites, and Similar Institutions
- 7131 Amusement Parks and Arcades
- 7132 Gambling Industries
- 7139 Other Amusement and Recreation Industries
- 7211 Traveler Accommodation
- 7212 RV (Recreational Vehicle) Parks and Recreational Camps
- 7213 Rooming and Boarding Houses
- 7221 Full-Service Restaurants
- 7222 Limited-Service Eating Places
- 7223 Special Food Services
- 7224 Drinking Places (Alcoholic Beverages)
- 8111 Automotive Repair and Maintenance
- 8112 Electronic and Precision Equipment Repair and Maintenance (except recycling inkjet cartridges when conducted off-site as a service provided by a third party reclaimer that does not conduct repair of office machines.)
- 8113 Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
- 8114 Personal and Household Goods Repair and Maintenance
- 8121 Personal Care Services
- 8122 Death Care Services
- 8123 Dry-cleaning and Laundry Services
- 8129 Other Personal Services
- 8131 Religious Organizations
- 8132 Grantmaking and Giving Services
- 8133 Social Advocacy Organizations
- 8134 Civic and Social Organizations
- 8139 Business, Professional, Labor, Political, and Similar Organizations
- 8141 Private Households
- 9211 Executive, Legislative, and Other General Government Support
- 9221 Justice, Public Order, and Safety Activities
- 9231 Administration of Human Resource Programs
- 9241 Administration of Environmental Quality Programs
- 9251 Administration of Housing Programs, Urban Planning, and Community Development
- 9261 Administration of Economic Programs
- 9271 Space Research and Technology
- 9281 National Security and International Affairs

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