

TABLE 1—CROP GROUP 20: OILSEED GROUP—Continued

Commodities	Related crop sub-groups
Sweet rocket, <i>Hesperis matronalis</i> L. ....	20A
Tallowwood, <i>Ximenia americana</i> L. ....	20B
Tea oil plant, <i>Camellia oleifera</i> C. Abel ....	20B
Vernonia, <i>Vernonia galamensis</i> (Cass.) Less. ....	20B
Cultivars, varieties, and/or hybrids of these. ....	

(iii) *Table.* The following Table 2 identifies the crop subgroups for Crop Group 20, specifies the representative commodities for each subgroup and lists all the commodities included in each subgroup.

TABLE 2—CROP GROUP 20 SUBGROUP LISTING

Representative commodities	Commodities
<b>Crop Subgroup 20A.</b> Rapeseed subgroup. Rapeseed, canola varieties only. ....	Borage, Crambe, Cuphea, Echium, Flax seed, Gold of pleasure, Hare's ear mustard, Lesquerella, Lunaria, Meadowfoam, Milkweed, Mustard seed, Oil radish, Poppy seed, Rapeseed, Sesame, Sweet rocket, cultivars, varieties, and/or hybrids of these.
<b>Crop Subgroup 20B.</b> Sunflower subgroup. Sunflower, seed. ....	Calendula, Castor oil plant, Chinese tallowtree, Euphorbia, Evening primrose, Jojoba, Niger seed, Rose hip, Safflower, Stokes aster, Sunflower, Tallowwood, Tea oil plant, Vernonia, cultivars, varieties, and/or hybrids of these.
<b>Crop Subgroup 20C.</b> Cottonseed Subgroup. Cottonseed. ....	Cottonseed, cultivars, varieties, and/or hybrids of these.

\* \* \* \* \*

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**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 320**

[EPA-HQ-SFUND-2009-0265; FRL-9100-5]

RIN 2050-AG56

**Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements Under CERCLA Section 108(b)**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Advance notice of proposed rulemaking (ANPRM).

**SUMMARY:** Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, establishes certain regulatory authorities concerning financial responsibility requirements. Specifically, the statutory language addresses the promulgation of regulations that require classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or

disposal of hazardous substances. In a July 28, 2009, **Federal Register** notice, the Environmental Protection Agency (EPA or the Agency) identified classes of facilities within the Hardrock Mining industry as those for which the Agency will first develop financial responsibility requirements under CERCLA Section 108(b). In that notice, EPA also stated its belief that additional classes of facilities—that is, other than those in the Hardrock Mining industry, also may warrant the development of financial responsibility requirements under CERCLA Section 108(b), and stated that EPA would publish a **Federal Register** notice, by December 2009, identifying additional classes of facilities it plans to evaluate regarding the development of financial responsibility requirements. As a result of examining available data and information, the Agency is identifying the classes of facilities within three industries—that is, the Chemical Manufacturing industry (NAICS 325), the Petroleum and Coal Products Manufacturing industry (NAICS 324), and the Electric Power Generation, Transmission, and Distribution industry (NAICS 2211), as those for which the Agency plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). EPA will carefully examine specific activities, practices, and

processes involving hazardous substances at these facilities, as well as Federal and State authorities, policies, and practices to determine the risks posed by these classes of facilities and whether requirements under CERCLA Section 108(b) will effectively reduce these risks.

In addition, this **Federal Register** notice identifies the Waste Management and Remediation Services industry (NAICS 562), the Wood Product Manufacturing industry (NAICS 321), the Fabricated Metal Product Manufacturing (NAICS 332) industry, and the Electronics and Electrical Equipment Manufacturing industry (NAICS 334 and 335), as well as facilities engaged in the recycling of materials containing CERCLA hazardous substances—as requiring further study before EPA begins the regulatory development process. In identifying classes of facilities within these industries in this notice, the Agency does not intend to indicate that other classes in other industry sectors are no longer being considered.

**DATES:** Submit comments on or before February 5, 2010.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-SFUND-2009-0834, by one of the following methods:

- *Electronic docket at:* [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.

• *E-mail*: Comments may be sent by electronic mail (e-mail) to [superfund.docket@epa.gov](mailto:superfund.docket@epa.gov), Attention Docket ID No. EPA-HQ-SFUND-2009-0834. 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.

• *Fax*: Comments may be faxed to 202-566-0272; Attention Docket ID No. EPA-HQ-SFUND-2009-0834.

• *Mail*: Send your comments to the Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements under CERCLA Section 108(b) Docket, Attention Docket ID No., EPA-HQ-SFUND-2009-0834, Environmental Protection Agency, Mailcode: 5305T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies.

• *Hand Delivery*: Deliver two copies of your comments to the Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements under CERCLA Section 108(b) Docket, Attention Docket ID No., EPA-HQ-SFUND-2009-0834, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions*: Direct your comments to Docket ID No. EPA-HQ-SFUND-2009-0834. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the

comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. 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. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>. For additional instructions on submitting comments, go to the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket*: All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements under CERCLA Section 108(b) Docket, Docket ID No. EPA-HQ-SFUND-2009-0834, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (202) 566-0276. The Public 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 Public Reading Room is (202) 566-1744.

**FOR FURTHER INFORMATION CONTACT**: For more information on this notice, contact Ben Lesser, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, Mail Code 5302P, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone (703) 308-0314; or (e-mail) [Lesser.Ben@epa.gov](mailto:Lesser.Ben@epa.gov); or Barbara Foster, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, Mail Code 5303P, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone (703) 308-7057; or (e-mail) [Foster.Barbara@epa.gov](mailto:Foster.Barbara@epa.gov).

**SUPPLEMENTARY INFORMATION**:

## A. How Can I Get Copies of This Document and Other Related Information?

This **Federal Register** notice and supporting documentation are available in a docket EPA has established for this action under Docket ID No. EPA-HQ-SFUND-2009-0834. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information may not be publicly available, because for example, it may be CBI or other information, the disclosure of which is restricted by statute. Certain material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements under CERCLA Section 108(b) Docket, Docket ID No. EPA-HQ-SFUND-2009-0834, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. The Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Superfund Docket is (202) 566-0270. A reasonable fee may be charged for copying docket materials.

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## I. Introduction

Section 108(b), 42 U.S.C. 9608 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, requires in specified circumstances that owners and operators of facilities establish evidence of financial responsibility. Specifically, it requires the promulgation of regulations that require classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances. The section also instructs that the President: <sup>1</sup>

\* \* \* identify those classes for which requirements will be first developed and publish notice of such identification in the **Federal Register**.

On July 28, 2009, EPA published that notice (see 74 FR 37213). In that notice, EPA identified classes of facilities within the Hardrock Mining industry as its priority for the development of financial responsibility requirements under CERCLA Section 108(b). For purposes of that notice, “hardrock mining” was defined as the extraction, beneficiation, or processing of metals (e.g., copper, gold, iron, lead, magnesium, molybdenum, silver, uranium, and zinc) and non-metallic, non-fuel minerals (e.g., asbestos, phosphate rock, and sulfur).

The notice also stated the Agency’s belief that classes of facilities, in addition to those within the Hardrock Mining industry, may warrant the development of financial responsibility requirements under CERCLA Section 108(b), that the Agency would continue to gather and analyze data on additional classes of facilities, and would consider them for possible development of CERCLA Section 108(b) financial responsibility requirements. The Agency indicated its plans to publish a **Federal Register** notice addressing these additional classes of facilities by December 2009.

This **Federal Register** notice identifies additional classes of facilities—the classes within three industry sectors—for which the Agency plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). EPA will

<sup>1</sup> Executive Order 12580 delegates this responsibility to the Administrator of the U.S. Environmental Protection Agency (“EPA” or “the Agency”) for non-transportation related facilities. (See 52 FR 2923, January 29, 1987.)

carefully examine specific activities, practices, and processes involving hazardous substances at these facilities, as well as Federal and State authorities, policies, and practices to determine the risks posed by these classes of facilities and whether requirements under CERCLA Section 108(b) will effectively reduce these risks. Any financial responsibility regulations developed by the Agency as the result of its analysis will be proposed in the **Federal Register** for public notice and comment.

This notice also identifies classes of facilities within four additional industry sectors, as well as classes of facilities engaged in recycling activities associated with materials containing CERCLA hazardous substances, which do not fit within a particular industry sector, as those classes for which the Agency plans to conduct further in-depth study before deciding whether to begin development of a proposed regulation.

Today’s notice, its identification of classes, and its announcement of further study of other classes is not itself a rule, and does not create any binding duties or obligations on any party. Additional research, outreach to stakeholders, proposed regulations, review of public comments, and finalization of those regulations are needed before any facilities are subject to any financial responsibility requirements.

## II. EPA’s Approach for Identifying Additional Classes of Facilities

EPA has worked to determine which classes of facilities it should identify in this notice for evaluation regarding financial responsibility requirements. In contrast to the statutory mandate under CERCLA Section 108(b)(1) to publish the priority notice (that EPA satisfied in July 2009), there is no statutory requirement for EPA to publish today’s notice. However, EPA is doing so as announced in the July 2009 notice.<sup>2</sup> As was the case with the July 2009 notice, EPA looked to the text of CERCLA Section 108(b) to inform its identification of facility classes. To begin with, the last sentence of Section 108(b)(1) states that “[p]riority in the development of such requirements shall be accorded to those classes of facilities \* \* \* which the President determines present the highest level of risk of injury.”

Examination of CERCLA Section 108(b) as a whole also reveals repeated references to the concept of “risk.” The first sentence of paragraph (b)(1) refers to “requirements \* \* \* that classes of facilities establish and maintain

evidence of financial responsibility consistent with the *degree and duration of risk*” and paragraph (b)(2) states that “[t]he level of financial responsibility shall be initially established, and, when necessary, adjusted to *protect against the level of risk* which the President in his discretion believes is appropriate \* \* \*.” (emphasis added). Accordingly, EPA chose to look for indicators of risk and related effects to inform the selection of classes of facilities for developing requirements under CERCLA Section 108(b).

The Agency indicated in the July 2009 notice that it “may take into account factors such as: (1) The amounts of hazardous substances released to the environment; (2) the toxicity of these substances; (3) the existence and proximity of potential receptors; (4) contamination historically found from facilities; (5) whether the causes of this contamination still exist; (6) experiences from Federal cleanup programs; (7) projected costs of Federal clean-up programs; and (8) corporate structures and bankruptcy potential.” EPA also indicated that it would “\* \* \* consider whether financial responsibility requirements under CERCLA Section 108(b) will effectively reduce these risks.” While some of the factors reflect the basic elements of risk evaluation (i.e., the probability of release, exposure, and toxicity<sup>3</sup>), others more closely relate to the severity of consequences that result when risks are realized, such as the releases’ duration and the exposures that can result if releases are not prevented or quickly controlled (e.g., as a result of economic constraints). Finally, the Agency identified the following specific classes of facilities for examination: hazardous waste generators,<sup>4</sup> hazardous waste recyclers, metal finishers, wood treatment facilities, and chemical

<sup>3</sup> National Research Council, “Risk Assessment in the Federal Government: Managing the Process,” National Academy Press, Washington, DC, 1983.

<sup>4</sup> In the July 2009 notice, EPA identified hazardous waste generators, a diverse group of facilities, defined by the RCRA regulations, as a class of facilities it would consider as part of its analysis leading up to this **Federal Register** notice. However, to conduct its analysis for purposes of this notice, the Agency relied primarily on NAICS codes to define groups of facilities for purposes of comparison. The Agency believes those classes of facilities within NAICS codes 325 and 324 (identified for the development of financial responsibility requirements in this notice), and those within the Hardrock Mining industry (identified for financial responsibility requirements in the July 2009 notice), effectively cover the vast majority of hazardous waste generated (see Table 2). The Agency, therefore, believes that this is a more workable approach to addressing this diverse group of facilities.

<sup>2</sup> 74 FR 37213 at 37219.

manufacturers.<sup>5</sup> The Agency indicated that the list of additional classes of facilities “may be revised as the Agency’s evaluation proceeds.” (See 74 FR 37213, at 37219, July 28, 2009).

To develop the list of classes of facilities discussed in this notice, EPA’s analysis used information related to sites listed on the National Priorities List (NPL), data on hazardous waste generation from the 2007 Resource Conservation and Recovery Act (RCRA) Biennial Report (BR), and data from the Toxics Release Inventory (TRI).<sup>6</sup> These information sources will be explained below. EPA chose these sources because they are well-established, reliable sources of information on facilities associated with hazardous substances, and were readily available to the Agency. Moreover, these data sources generally address all of the factors noted in the July 2009 notice and cited above, either directly or indirectly. More specifically,

- The NPL information addresses the following factors (either directly or indirectly): (1) The amounts of hazardous substances released to the environment; (2) the toxicity of these substances; (3) the existence and proximity of potential receptors; (4) contamination historically found from facilities; (5) whether the causes of this contamination still exist; (6) experiences from Federal cleanup programs; (7) projected costs of Federal cleanup

<sup>5</sup> Although EPA did not solicit comment on the notice, it did receive correspondence related to this notice from a number of sources—Earth Justice; the Association of State and Territorial Solid Waste Management Officials; Treated Wood Council; Southern Pressure Treaters’ Association; Superfund Settlements Project and RCRA Corrective Action Project; American Chemistry Council; American Petroleum Institute; and the Society of Chemical Manufacturers and Affiliates.

Through this correspondence, the Agency received a number of comments on a range of issues related to development of financial responsibility requirements under CERCLA Section 108(b) including, but not limited to:

Suggestions regarding additional sectors to identify for financial responsibility requirements,

Concerns about the Agency’s overall approach under CERCLA Section 108(b),

Suggestion regarding interpretation of the statutory language,

Suggestions for effective implementation of financial responsibility requirements,

Suggestions regarding the focus of rulemaking efforts under CERCLA Section 108(b), and

Industry-specific factors to consider in developing regulatory requirements.

This correspondence can be found in the docket for this **Federal Register** notice. The Agency will consider and address any comments received as part of its proposed and final rulemakings.

<sup>6</sup> TRI estimates include all on-site releases of CERCLA hazardous substances to the land, air and surface water, including those disposed of in RCRA Subtitle C hazardous waste land disposal units and Safe Drinking Water Act (SDWA) permitted underground injection (UIC) wells.

programs; and (8) corporate structures and bankruptcy potential.<sup>7</sup>

- The BR information addresses (either directly or indirectly) (1) the amounts of RCRA hazardous wastes<sup>8</sup> generated or managed.

- The TRI information addresses the following factors (either directly or indirectly): (1) The amounts of hazardous substances released to the environment; (2) the toxicity of these substances; and (5) whether the causes of this contamination still exist.

EPA recognizes that the NPL data reflects activity that, in some cases, pre-dates CERCLA, RCRA, and other legal requirements. In our request for comment about risks at the end of this notice, the Agency welcomes information about current releases of hazardous substances to the environment to help inform EPA’s future actions.

The following sections describe EPA’s evaluation and its results. However, EPA notes that while, in general, the Agency chose to identify those classes of facilities comprising a relatively large percentage or amounts of hazardous substances, it should not be assumed that other industry classes are no longer being considered and will not be identified for future rulemakings.

#### A. Analysis of National Priority List Information

The NPL is a list of national priorities for cleanups among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the U.S. (In addition to the list of sites on the NPL, file information about individual sites was also considered in developing today’s notice.) The Hazard Ranking System, the scoring system EPA uses to assess the relative threat associated with releases or potential releases of hazardous substances from a site, is the primary method used to determine whether a site should be placed on the NPL.<sup>9</sup> The HRS takes into account the three elements of environmental and human health risk: (1) Probability of release; (2) exposure; and (3) toxicity. EPA generally will list on the NPL sites with scores of 28.50 or above. The HRS

<sup>7</sup> While CERCLIS, the Superfund program’s data base, and NPL site files do not account for corporate structures or bankruptcy potential, EPA notes that, as a practical matter and consistent with EPA’s “enforcement first” policies, the lack of a viable party at a site is often a consideration that goes into the decision to list a particular site on the NPL.

<sup>8</sup> RCRA hazardous wastes are, under CERCLA Section 101(14), defined as CERCLA hazardous substances.

<sup>9</sup> EPA 2007. “Introduction to the Hazard Ranking System (HRS).” Available at: [http://www.epa.gov/superfund/programs/npl\\_hrs/hrsint.htm](http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm).

is a proven and accepted tool for evaluating and prioritizing the releases that may pose threats to human health and the environment throughout the nation. As of October, 2009, there were 1,495 proposed, final, and deleted non-Federal sites on the NPL. For purposes of this analysis, the Agency assigned each of the NPL sites the three-digit NAICS code<sup>10 11</sup> that best identified the activities at the site, using available data and best professional judgment. The analysis thus identified the relative prevalence of industry sectors on the NPL.<sup>12</sup>

Based on this analysis, the Agency identified six industry sectors, and one group of facilities, on which to focus further: (1) The Waste Management and Remediation Services industry (NAICS 562) (including municipal and industrial landfills), with 465 sites; (2) the Chemical Manufacturing industry (NAICS 325), with 181 sites; (3) facilities engaged in the recycling of materials containing CERCLA hazardous substances, with 138 sites;<sup>13</sup> (4) the Wood Product Manufacturing industry (NAICS 321), with 94 sites; (5) the Fabricated Metal Product Manufacturing industry (NAICS 332), with 91 sites; (6) the Electronics and Electrical Equipment Manufacturing industry (NAICS 334 and 335), with 71 sites;<sup>14</sup>

<sup>10</sup> North American Industry Classification System (NAICS)—the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. NAICS codes are available at: <http://www.census.gov>.

<sup>11</sup> This information can be found in the docket for this **Federal Register** notice.

<sup>12</sup> In this analysis, EPA excluded sites identified within those classes of Hardrock Mining already discussed in the July 2009 notice.

<sup>13</sup> In the Agency’s Superfund program database, some facilities were simply classified in categories that do not directly correspond with NAICS. Recyclers (REC), Transportation-related facilities (TS) and Product Storage facilities (PS) are included in these categories.

<sup>14</sup> In CERCLIS, the Superfund program’s data base, NPL sites are not categorized by NAICS codes. Rather, CERCLIS uses “site types” to describe each of the NPL sites. These site types include the fields: manufacturing/processing/maintenance, recycling, waste management, and other. Within each site type, there are various “subtypes.” Manufacturing/processing/maintenance contains the following subtypes: chemicals and allied products, electronic/electrical equipment, lumber and wood products, oil and gas refining, and other. When assigning NAICS codes to facilities within the subtype “electronic/electrical equipment,” the Agency could not, based on information from the data base, distinguish between facilities within NAICS 334 (Computer and Electronic Product Manufacturing), and NAICS 335 (Electrical Equipment, Appliance, and Component Manufacturing), so conducted its analysis treating them as one industry sector (hereinafter referred to as “the Electronics and Electrical Equipment Manufacturing” industry). An analysis more detailed than that performed by the

Continued

and (7) the Petroleum and Coal Products Manufacturing industry (NAICS 324), with 30 sites. EPA focused on these seven industry categories because they comprise 1,073 sites, or approximately 70 percent of all non-Federal, proposed, finalized, and deleted sites on the NPL. The findings of the NPL analysis are shown in Table 1.

TABLE 1—TOP INDUSTRIES LISTED ON THE CERCLA NATIONAL PRIORITIES LIST FROM 1981–2009

Category or NAICS code	Includes NPL sites identified as:	Total number of sites	Percentage of total number of sites
562 Waste Management and Remediation Services .....	Industrial waste facility (non-generator), municipal solid waste landfill; co-disposal landfills (municipal and industrial).	465	30.7
325 Chemical Manufacturing .....	Chemicals/chemical waste recovery .....	181	11.9
REC Recycling of Materials Containing CERCLA Hazardous Substances.	Recycled oil/reclaimed copper; solvent recovery/reclamation; reprocessed solvent; recovered metals; used oil recycling, drums/tanks recycling.	138	9.1
321 Wood Products Manufacturing .....	Lumber, wood and paper bag products; wood preservers.	94	6.2
332 Fabricated Metal Product Manufacturing .....	Metal fabrication/finishing/coating and allied industries ...	91	6.0
334 Computer and Electronic Product Manufacturing ...	Electronic/electrical equipment .....	71	4.7
335 Electrical Equipment, Appliance, and Component Manufacturing*.			
324 Petroleum and Coal Products Manufacturing .....	Oil and gas refining, coke production .....	30	1.9
TS Transportation-related Facilities .....	Trucks/ships/trains related components .....	25	1.6
PS Product Storage .....	Product storage/distribution .....	20	1.3
812 Personal and Laundry Services .....	Dry cleaners .....	19	1.3

\* The Agency's CERCLA database does not differentiate facilities in NAICS 334 from those in NAICS 335 (see footnote 14).

The Agency next considered BR and TRI data. Those analyses are explained below.

*B. Analysis of RCRA Biennial Report and Toxics Release Inventory Data*

EPA, in partnership with the States, biennially collects information from large quantity hazardous waste generators, transporters, and treatment, storage, and disposal facilities regarding the generation, management, and final disposition of hazardous waste regulated under RCRA. The BR data, which includes the reporting facilities' NAICS codes, shows that in 2007 there

are two industry sectors that generate the majority of hazardous waste<sup>15</sup>—the Chemical Manufacturing industry (NAICS 325) (approximately 19.8 million tons), and the Petroleum and Coal Products Manufacturing industry (NAICS 324) (approximately 4.2 million tons). These two industry sectors comprise more than 24 million tons, or approximately 74 percent of the total amount of hazardous waste generated annually (see Table 2), and with the Hardrock Mining industry, represent approximately 80 percent of all RCRA hazardous waste generated by large quantity generators. While the next

three industry sectors—Waste Management and Remediation Services, Electronic and Electric Equipment Manufacturing, and Fabricated Metals Product Manufacturing—would include an additional 4.4 million tons (or approximately 14 percent) of additional hazardous waste, as is discussed later in this notice, the Agency believes, for the reasons discussed later in this notice, that it needs to conduct further investigation of these three industry sectors before it makes the decision to develop financial responsibility requirements for these classes of facilities.

TABLE 2—RCRA 2007 BIENNIAL REPORTING DATA ON WASTE GENERATION OF NPL-IDENTIFIED INDUSTRIAL SECTORS—TOP RANKING NAICS CODES

NAICS code	Description	Generated tons	Percentage of total amount of hazardous waste generated
325 .....	Chemical Manufacturing .....	19,767,608	61.10
324 .....	Petroleum and Coal Products Manufacturing .....	4,189,468	12.95
331 .....	Primary Metal Manufacturing <sup>16</sup> .....	2,706,145	8.37
562 .....	Waste Management and Remediation Services .....	2,690,809	8.32
334–335 .....	Computer and Electric Product Manufacturing/Electrical Equipment, Appliance and Component Manufacturing.	1,155,014	3.57
332 .....	Fabricated Metal Product Manufacturing .....	621,739	1.92
336 .....	Transportation Equipment Manufacturing .....	188,102	0.58
928 .....	National Security and International Affairs .....	140,946	0.43
424 .....	Merchant Wholesalers, Nondurable Goods .....	76,678	0.24
326 .....	Plastics and Rubber Products Manufacturing .....	62,887	0.19
327 .....	Nonmetallic Mineral Product Manufacturing .....	55,031	0.17
333 .....	Machinery Manufacturing .....	52,117	0.17

Agency for purposes of this notice will be necessary to further delineate the prevalence of each of these two industry sectors on the NPL.

<sup>15</sup> It should be noted that CERCLA hazardous substances include RCRA hazardous wastes.

TABLE 2—RCRA 2007 BIENNIAL REPORTING DATA ON WASTE GENERATION OF NPL-IDENTIFIED INDUSTRIAL SECTORS—TOP RANKING NAICS CODES—Continued

NAICS code	Description	Generated tons	Percentage of total amount of hazardous waste generated
321 .....	Wood Product Manufacturing .....	48,923	0.15
541 .....	Professional, Scientific, and Technical Services .....	45,288	0.14
561 .....	Administrative and Support Services .....	43,846	0.13
339 .....	Miscellaneous Manufacturing .....	38,970	0.12
493 .....	Warehousing and Storage .....	33,443	0.10
488 .....	Support Activities for Transportation .....	29,989	0.10
531 .....	Real Estate .....	29,740	0.10
323 .....	Printing and Related Support Activities .....	27,810	0.08
322 .....	Paper Manufacturing .....	18,272	0.06
611 .....	Educational Services .....	16,684	0.05
2211 .....	Electric Power Generation, Transmission and Distribution .....	15,703	0.05
Total .....	Amount of Hazardous Waste Generated .....	32,331,213	.....

TRI is a database that contains detailed information on nearly 650 chemicals and chemical categories, many of which are hazardous substances under CERCLA, that over 23,000 industrial and other facilities manage through disposal or other releases, recycling, energy recovery, or treatment. The TRI data, which includes the reporting facilities' NAICS codes, shows that in 2007 two industry sectors identified in the NPL analysis were also

among those reporting the largest quantities of on-site releases of hazardous substances (not including the Hardrock Mining industry)—*i.e.*, the Chemical Manufacturing industry (NAICS 325) (reporting the largest quantity); and the Waste Management and Remediation Services industry (NAICS 562). In addition, another sector emerged from the TRI analysis—the Electric Power Generation, Transmission and Distribution industry

(NAICS 2211), and was the sector reporting the second-largest quantity of on-site releases of hazardous substances. (See Table 3.) These three industry sectors comprise approximately 530 million pounds, or approximately 25 percent, of the total amount of on-site releases of hazardous substances, and with the Hardrock Mining industry represent over 75 percent of the total amount of on-site releases of hazardous substances.

TABLE 3—2007 TRI ON-SITE RELEASES OF CERCLA HAZARDOUS SUBSTANCES FOR NPL-IDENTIFIED INDUSTRIAL SECTORS—TOP RANKING NAICS CODES

NAICS code	Description	On-site releases (1,000 lbs)	Percentage of total on-site releases
2122 .....	Metal Ore Mining .....	1,099,573	51.1
325 .....	Chemicals Manufacturing .....	220,246	10.2
2211 .....	Electric Power Generation, Transmission and Distribution .....	161,053	7.5
331 .....	Primary Metal Manufacturing .....	156,811	7.3
562 .....	Waste Management and Remediation Services .....	152,397	7.1
311 .....	Food Manufacturing .....	107,406	5.0
324 .....	Petroleum and Coal Products Manufacturing .....	46,052	2.1
322 .....	Paper Manufacturing .....	43,491	2.0
326 .....	Plastics and Rubber Products Manufacturing .....	32,612	1.5
.....	No TRI NAICS code .....	28,578	1.3
336 .....	Transportation Equipment Manufacturing .....	25,921	1.2
327 .....	Nonmetallic Mineral Product Manufacturing .....	17,669	0.8
323 .....	Printing and Related Support Activities .....	11,798	0.5
332 .....	Fabricated Metal Product Manufacturing .....	10,292	0.5
337 .....	Furniture and Related Product Manufacturing .....	7,180	0.3
321 .....	Wood Product Manufacturing .....	6,479	0.3
334–335 .....	Computer and Electric Product Manufacturing/Electrical Equipment, Appliance and Component Manufacturing.	5,840	0.3
2121 .....	Coal Mining .....	5,473	0.2
3274 .....	Lime and Gypsum Product Manufacturing .....	3,459	0.2
333 .....	Machinery Manufacturing .....	2,690	0.1
339 .....	Miscellaneous Manufacturing .....	2,488	0.1
313 .....	Textile Mills .....	1,996	0.1
4247 .....	Petroleum and Petroleum Products Merchant Wholesalers .....	1,388	0.1

<sup>16</sup> When the Agency assigned NAICS codes to the NPL sites (see Section II.A.), it included within the definition of Hardrock Mining many activities that fall within NAICS 331 Primary Metal

Manufacturing. Thus, while Primary Metal Manufacturing ranks high in the TRI and BR analysis conducted for this notice, the Agency had already considered those releases in identifying the

classes within Hardrock Mining for financial responsibility requirements in the July 2009 notice.

TABLE 3—2007 TRI ON-SITE RELEASES OF CERCLA HAZARDOUS SUBSTANCES FOR NPL-IDENTIFIED INDUSTRIAL SECTORS—TOP RANKING NAICS CODES—Continued

NAICS code	Description	On-site releases (1,000 lbs)	Percentage of total on-site releases
Total .....	Amount of On-Site Releases of Hazardous Substances .....	2,151,723	.....

### C. Conclusions From the NPL/BR/TRI Analyses

As described in Section II.A. above, the analysis of the NPL provided the Agency with six industry sectors, and one group of facilities, to consider further—(1) The Waste Management and Remediation Services industry, (2) the Chemical Manufacturing industry, (3) facilities engaged in the recycling of materials containing CERCLA hazardous substances, (4) the Wood Product Manufacturing industry, (5) the Fabricated Metal Product Manufacturing industry, (6) the Electronics and Electrical Equipment Manufacturing industry, and (7) the Petroleum and Coal Products Manufacturing industry.

The Agency then evaluated data from the BR and TRI to determine whether any of the seven industry categories provided by the NPL analysis emerged as classes of facilities for further consideration because of the quantities of hazardous substances generated and managed. Finally, the Agency considered additional factors, which will be discussed below, to determine whether to begin the regulatory development process.

Analysis of the BR data, which is described in Section II.B. above, shows that two of the industry sectors identified in the NPL analysis generate the majority of hazardous waste—the Chemical Manufacturing industry, and the Petroleum and Coal Products Manufacturing industry. Further, the TRI data, also described in Section II.B. above, shows that in 2007, two industry sectors identified in the NPL analysis were also among those reporting the largest quantities of on-site releases of hazardous substances—the Chemical Manufacturing industry, and the Waste Management and Remediation Services industry.

Therefore, classes of facilities within two industry sectors emerged as clearly appropriate for consideration based on the results of the analysis—the Chemical Manufacturing industry (NAICS 325) and the Petroleum and Coal Products Manufacturing industry (NAICS 324).<sup>17</sup> Specifically, the

<sup>17</sup> The Waste Management and Remediation Services industry also seems, at first glance, to emerge from this analysis as appropriate for

Chemical Manufacturing industry (NAICS 325) was ranked second on the NPL analysis (representing approximately 12 percent of the NPL sites), ranked first on the BR analysis (representing approximately 61 percent of the total amount of hazardous waste generated), and ranked second on the TRI analysis (representing approximately 10 percent of the total on-site releases of hazardous substances). With respect to the Petroleum and Coal Products Manufacturing industry (NAICS 324), it ranked second on the BR analysis (representing approximately 13 percent of the total amount of hazardous waste generated), and sixth on the TRI analysis (representing approximately 2 percent of the total on-site releases of hazardous substances). While this industry sector did rank lower on the NPL analysis, we note that many petroleum refineries, as part of their operations, have released and are likely continuing to release hazardous substances to the environment, and thus, the actual number of facilities in this industry sector that have environmental releases is much larger than as measured by the NPL. Based on these data, the Agency believes it is appropriate to identify the classes within these two industry sectors as among those for which it plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b).

In addition, the Agency believes it is appropriate to also identify classes of facilities within the Electric Power Generation, Transmission, and Distribution industry (NAICS 2211) as among those for which it will consider a proposed rulemaking regarding financial responsibility under CERCLA Section 108(b). Our basis for this is several-fold. Specifically, this industry sector ranked third in the TRI analysis, representing approximately 7.5 percent of total on-site releases of hazardous substances. Further, although it did not rank high in the BR analyses, it would

development of a proposed rule but, for reasons described in section II.E. of this notice, the Agency believes more information is needed regarding this category of facilities.

not be expected to produce these results since coal combustion residuals (CCRs) are “Bevill exempt”<sup>18</sup> wastes, and thus not subject to BR reporting requirements. In addition, while this industry sector was not identified in the NPL analysis, the Agency has documented evidence of proven damages to groundwater or surface water in 27 damage cases<sup>19</sup> involving these wastes—17 cases of damage to groundwater, and ten cases of damage to surface water, including ecological damages in seven of the ten.<sup>20</sup> Finally, a recent catastrophic release in Tennessee of about one billion gallons of coal ash from the Tennessee Valley Authority’s Kingston Plant has demonstrated the significant cleanup costs that can be generated by this industry sector. (This is so even though this industry sector was not identified as a relatively common presence on the NPL in the analysis above.) This additional information, discussed more fully in Section II.D.3 of this notice, supplements the NPL, BR, and TRI analyses to indicate that development of proposed financial responsibility requirements for this industry sector is appropriate.

As a result of evaluating this information, the Agency is today identifying classes of facilities within three industries—the Chemical

<sup>18</sup> The “Bevill” exemption is codified at 40 CFR 261.4(b)(7).

<sup>19</sup> Per the May 2000 Regulatory Determination (see 65 FR 32224), proven damage cases are those with (i) documented exceedances of primary MCLs or other health-based standards measured in groundwater at sufficient distance from the waste management unit to indicate that hazardous constituents have migrated to the extent that they could cause human health concerns, and/or (ii) where a scientific study demonstrates there is documented evidence of another type of damage to human health or the environment (e.g., ecological damage), and/or (iii) where there has been an administrative ruling or court decision with an explicit finding of specific damage to human health and the environment.

<sup>20</sup> The 24 cases identified in EPA’s “Coal Combustion Waste Damage Case Assessments,” July 9, 2007, available at: <http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&d=EPA-HQ-RCRA-2006-0796-0015> with the addition of Martins Creek, Pennsylvania, where in August, 2005, a dam confining a 40-acre CCR surface impoundment failed, resulting in the discharge of 100 million gallons of coal ash and contaminant water; Gambrells, MD; and Kingston/TVA, TN.

Manufacturing industry (NAICS 325), the Petroleum and Coal Products Manufacturing industry (NAICS 324), and the Electric Power Generation, Transmission, and Distribution industry (NAICS 2211) as those for which the Agency plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). In identifying classes of facilities within these industries in this notice, the Agency does not intend to indicate that other classes in other industry sectors are no longer being considered. (See Section II.E. for discussion of additional classes of facilities that EPA plans to study further before deciding whether to initiate the development of a proposed regulation.)

#### *D. Additional Information Regarding the Classes of Facilities for Which EPA Plans To Develop a Proposed Regulation*

As was discussed above, the Agency is identifying in this **Federal Register** notice the classes of facilities within the Chemical Manufacturing (NAICS 325), Petroleum and Coal Products Manufacturing (NAICS 324), and Electric Power Generation, Transmission, and Distribution (NAICS 2211) industries as those for which EPA plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). EPA identified the classes within these industry sectors based on the analyses and information described above.

As was also discussed above, the Agency identified, in the July 2009 notice, eight factors it would take into consideration when evaluating any additional classes of facilities. To take these factors into account in its analysis, the Agency relied on readily available, reliable sources of information that reflected the factors—*i.e.*, the NPL, BR, and TRI (see discussion in Section II of this notice).

After identifying the classes of facilities in the Chemical Manufacturing, Petroleum and Coal Products Manufacturing, and Electric Power Generation, Transmission, and Distribution industries, the Agency further evaluated those industry sectors by gathering additional information related to the eight factors, to the extent it was practicable to do so. The results verified the Agency's analysis. The following discussion describes the results for each of the industry sectors, in turn.

#### 1. Chemical Manufacturing (NAICS 325)

For purposes of this **Federal Register** notice, EPA has included the following classes of facilities, which are encompassed by the NAICS code 325 definition of the "Chemical Manufacturing" industry: facilities involved in the transformation of organic and inorganic raw materials by a chemical process and in the formulation of products.<sup>21</sup> As is explained below, chemical manufacturing facilities share common characteristics, and are thus being identified as a group. At the same time, those facilities included in the definition above differ such that "chemical manufacturing facilities" are properly considered to encompass multiple "classes" of facilities. The various classes in this **Federal Register** notice's definition of chemical manufacturing are primarily involved in one or more of three general activities: (1) Preparation of raw material inputs, (2) chemical reactions and synthesis, and (3) recovery of reaction products through purification, isolation, separation, drying, and a variety of other methods, to create a good that can be either sold as a finished material or as an intermediate for further processing by other manufacturers.

The chemical industry is an integral part of the United States' (U.S.) economy, converting various raw materials into more than 70,000 diverse products. These raw material inputs are generally either organic (oil, natural gas) or inorganic raw materials (ores or natural elements taken from the earth).<sup>22</sup> In many instances, these raw material inputs need to undergo chemical or physical processes before they are introduced in the chemical reaction, and these processes tend to be a large source of hazardous substances. For example, in the production of chlorine, raw brine requires the removal of impurities, such as calcium, magnesium, and other trace metals, to obtain the process input sodium

chloride.<sup>23</sup> The removal of impurities leads to the formation of brine muds, a large waste stream containing the hazardous substances sulfate, chloride, and carbon tetrachloride.<sup>24</sup>

The next step in chemical and allied products manufacturing process, chemical reaction and/or synthesis, exhibits variety both across and within sectors in the chemical manufacturing industry, although with the common characteristic of using a chemical process to formulate a product. Some examples of chemical reactions include halogenation in the formation of chlorinated solvents, and polymerization in the formation of plastic resins. Inputs will often go through more than one reaction. In many sectors, a reactor vessel acts as a host to the reaction, as well as sometimes acting as a crystallizer, heater, mixer, or evaporator.<sup>25</sup> Chemical synthesis can be responsible for significant emissions of hazardous substances, including ammonia, ethylene, aromatics, alcohols, oxides, acids, and chlorine.<sup>26</sup> In organic chemical manufacturing, inputs are generally added by either a batch process, in which all reactant chemicals are added to a reaction vessel at the same time and the products are emptied completely when the reaction is finished, or by a continuous process, in which reactants are added and products are removed at a constant rate. Chemicals may be emitted more at the beginning and end of the reaction during operations, such as vessel loading and product transfer.<sup>27</sup>

The desired end products are rarely obtained in pure form out of the reaction or synthesis process, and by-products and unreacted inputs must be removed. Once the reaction occurs, the targeted product or products must be isolated and purified, and this

<sup>23</sup> EPA 1995. "Office of Compliance Sector Notebook: Profile of the Inorganic Chemical Industry." EPA/310-R-95-004 SIC Code: 281. Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/inorganic.html>.

<sup>24</sup> International Finance Corporation, World Bank Group 2007. "Environment, Health, and Safety Guidelines: Large Volume Inorganic Compounds Manufacturing and Coal Tar Distillation." Available at: <http://www.ifc.org/ifcext/sustainability.nsf/Content/EnvironmentalGuidelines>.

<sup>25</sup> EPA 1997. "Office of Compliance Sector Notebook: Profile of the Pharmaceutical Industry." EPA/310-R-97-005: 283. Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/pharmaceutical.html>.

<sup>26</sup> EPA 2002. "Office of Compliance Sector Notebook: Profile of the Organic Chemical Industry." EPA/310-R-02-001 SIC Code: 286. <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/organic.html>.

<sup>27</sup> *Ibid.*

<sup>21</sup> Within NAICS 325 belong the following: Basic Chemical Manufacturing (NAICS 3251); Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252); Pesticides, Fertilizer, and Other Agricultural Chemical Manufacturing (NAICS 3253); Pharmaceutical and Medicine Manufacturing (NAICS 3254); Paint, Coating, and Adhesive Manufacturing (NAICS 3255); Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256); and Other Chemical Product and Preparation Manufacturing (NAICS 3259).

<sup>22</sup> U.S. Department of Energy. Office of Industrial Technologies. (2000). "Energy and Environmental Profile of the U.S. Chemical Industry." Columbia, MD: ENERGETICS Inc. Available at: [http://www1.eere.energy.gov/industry/chemicals/tools\\_profile.html](http://www1.eere.energy.gov/industry/chemicals/tools_profile.html).

purification process will vary based on inputs, processes, and the targeted product. For example, common separation methods used by the organic chemical manufacturing industry include filtration, extraction, or distillation, the latter a method used to separate or purify volatile components from less volatile components. Some environmental concerns associated with distillation include releases to the air from condenser vents, waste streams, and wastes from cleaning.<sup>28</sup> Pharmaceutical manufacturers typically utilize a series of separation, crystallization, purification, and drying stages in formulating a product.<sup>29</sup> These steps can lead to the emission of hazardous substances from uncontained filtering systems and dryers, and wastewaters may be formed from equipment cleaning, spills, leaks, and spent purification solvents. In the production of chlorine and caustic soda, classified under the inorganic chemical manufacturing industry, recovered chlorine gas is processed with sulfuric acid, which may then be released to water or disposed of on the land.<sup>30</sup> Other wastes from the production of chlorine and caustic soda include chlorine gas emissions (both fugitive and point sources); spent acids; Freon (both fugitive and point source); and pollutants originating from electrolytic cell materials and other system parts.<sup>31</sup>

Both because of the way that the facilities covered by this **Federal Register** notice fit together, and because of the range of activities that they cover, EPA believes chemical manufacturing is properly identified as a group and considered to include multiple classes of facilities.

#### a. Releases and Exposure to Hazardous Substances

The Chemical Manufacturing industry typically operates on a large scale, with releases to the environment and, in some situations, subsequent exposure of humans, organisms, and ecosystems to hazardous substances on a similarly large scale. As was previously discussed, the Agency's TRI data revealed that the Chemical Manufacturing industry released large

quantities of CERCLA hazardous substances, approximately 220 million pounds, or approximately 10 percent of the total on-site releases of hazardous substances reported under TRI. This overall percentage, while declining, has still remained large since 2001, ranging from 291 million pounds of total on-site releases of hazardous substances in 2001 to 233 million pounds in 2006. In 2007, the majority of on-site releases of hazardous substances from the Chemical Manufacturing industry were to underground injection, with additional releases to the air, water, and land.<sup>32</sup>

Further, according to the 2007 RCRA BR, the Chemical Manufacturing industry generated approximately 19.8 million tons of hazardous waste, or approximately 61 percent of the total amount of hazardous waste reported by large quantity generators. This waste can take a variety of forms, including spent solvents, distillation bottoms and side-cuts, off specification or unused toxic chemicals, wastewater, wastewater treatment sludge, emission control sludges, filter cake, spent catalysts, by-products, reactor clean out wastes, and container residues.<sup>33</sup>

There are a large number of active facilities operating in the U.S., and thus, there is potential for releases of and exposure to hazardous substances. While estimates of the number of active chemical manufacturing facilities vary, in 2007, the Census Bureau estimated that there were approximately 13,000 chemical manufacturing facilities in the U.S.<sup>34</sup>

In some cases, these wastes have led to ground and surface water contamination when improperly managed.<sup>35</sup> In particular, EPA's review of its NPL site information underscores the risk of chemical manufacturing facilities. To begin with, that review

showed over 180 facilities with sites included on the NPL. Pemaco Maywood, a four-acre facility in Maywood, California, that housed a chemical blending plant operating between the 1940s and 1991, is a prominent example of a facility with high risk to the environment and human health. During its years of operation, hazardous chemicals were stored in both above- and below-ground tanks, and drums included chlorinated and aromatic solvents, flammable liquids, petroleum hydrocarbons, and other volatile organic chemicals (VOCs). In a later study of contamination of the site, several VOCs were identified as infiltrating soil and wells drawing from groundwater. Aqueous samples taken from the wells contained toxic hydrocarbons, such as vinyl chloride, trichloroethene (TCE), 1,1,1-trichloroethane (TCA), 1,1- and 1,2-dichloroethenes, and 1,1-dichloroethane, all listed on the 2007 CERCLA Priority List of Hazardous Substances.<sup>36</sup> The site is of particular concern because 13 water purveyors draw groundwater from 78 wells within four miles of the site to supply drinking water to approximately 339,000 people. Furthermore, the site is in a mixed industrial and residential community, with a residential tract across the street.<sup>37</sup> Similarly, the Woolfolk Chemical Superfund site, in Fort Valley, Georgia, a full-line pesticide plant formulating products in liquid, dust, and granular forms for the agricultural, lawn, and garden markets emitted a large amount of chemicals throughout its years of operation. Monitors detected metals and pesticides, including lead, arsenic, chlordane, DDT, lindane, and toxaphene, in on-site soil and groundwater, and in an open ditch south of the plant. Three of the five Fort Valley municipal water supply wells are within 1,000 feet of the facility, and an estimated 10,000 people obtain drinking water from municipal wells within three miles of the site.<sup>38 39</sup>

<sup>28</sup> See TRI data from Bill Kline, EPA. "On-site Releases of ATSDR (Agency for Toxic Substances and Disease Registry) Hazardous Substances Reported to TRI for 2001 through 2007, by Industry and Year," October 8, 2009.

<sup>29</sup> European Commission. Integrated Pollution Prevention and Control (IPPC). "Reference Document on Best Available Techniques in the Large Volume Organic Chemical Industry." 2003. European Commission Joint Research Centre. Available at: [http://ftp.jrc.es/eippcb/doc/lvo\\_bref\\_0203.pdf](http://ftp.jrc.es/eippcb/doc/lvo_bref_0203.pdf).

<sup>30</sup> American Fact Finder. 325 Chemical Manufacturing. U.S. Census Bureau. 2007 Economic Census. Last updated: March. Accessed at: [http://factfinder.census.gov/servlet/IBQTable?\\_bm=y&-ds\\_name=EC0700CADV1&-NAICS2007=325&-lang=en](http://factfinder.census.gov/servlet/IBQTable?_bm=y&-ds_name=EC0700CADV1&-NAICS2007=325&-lang=en) Accessed: September 9, 2009.

<sup>31</sup> See, for example, the NPL Site Narrative for Diaz Chemical Corporation, available at: <http://www.epa.gov/superfund/sites/npl/nar1708.htm>, or the NPL Site Narrative for Standard Chlorine Chemical Company, available at: <http://www.epa.gov/superfund/sites/npl/nar1672.htm>.

<sup>32</sup> ATSDR (Agency for Toxic Substances and Disease Registry). 2007. "CERCLA Priority List of Hazardous Substances." U.S. Department of Health and Human Services. Available at: <http://www.atsdr.cdc.gov/cercla/>. CERCLA Section 104 (i), as amended by the Superfund Amendments and Reauthorization Act (SARA), requires ATSDR and EPA to prepare a list, in order of priority, of substances that are most commonly found at facilities on the NPL and that are determined to pose the most significant potential threat to human health due to their known or suspected toxicity and potential for human exposure at these NPL sites.

<sup>33</sup> EPA 2009. NPL Site Narrative for Pemaco Maywood. Available at: <http://www.epa.gov/superfund/sites/npl/nar1517.htm>.

<sup>34</sup> EPA 2009. NPL Site Narrative for Woolfolk Chemical Works, Inc. Available at: <http://www.epa.gov/superfund/sites/npl/nar10401315.pdf>.

<sup>28</sup> Ibid.

<sup>29</sup> EPA 1997. "Office of Compliance Sector Notebook: Profile of the Pharmaceutical Industry." EPA/310-R-97-005: 283. Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/pharmaceutical.html>.

<sup>30</sup> EPA 1995. "Office of Compliance Sector Notebook: Profile of the Inorganic Chemical Industry." EPA/310-R-95-004: 281. Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/inorganic.html>.

<sup>31</sup> Ibid.

b. Severity of Consequences Resulting From Releases and Exposure to Hazardous Substances.

These situations, as well as others, EPA believes, have led to, and may continue to lead to, impacts to public health and the environment as a result of releases and exposure of hazardous substances. Specifically, the severity of consequences posed by some chemical manufacturing facilities is evident in the large costs associated with some past and estimated future actions necessary to protect public health and the environment through what are often extensive and long-term remediation efforts. In other words, the documented expenditures for cleanup reflect efforts to correct the realized risks from chemical manufacturing facilities. As noted earlier, chemical manufacturing facilities release, and have the potential to release, large quantities of hazardous substances, which can affect the environment and populations. Groundwater and soil contamination require long-term management and treatment. Remediation of these chemical manufacturing facilities has therefore been historically costly. For the NPL sites identified in the NAICS 325 category, EPA has spent approximately \$2.7 billion through FY 2009.<sup>40 41</sup> For example, Whitmoyer Laboratories, a veterinary and pharmaceutical manufacturing plant, produced, stored, and disposed of arsenic on its 22-acre site. Over the years, the laboratory changed ownership

<sup>39</sup> Facility Detail Report for Woolfolk Chemical Works. Available at: [http://oaspub.epa.gov/enviro/fii\\_master.fii\\_retrieve?fac\\_search=handler\\_id&fac\\_value=GAD003269578&fac\\_search\\_type=Beginning+With&postal\\_code=&location\\_address=&add\\_search\\_type=Beginning+With&all\\_programs=YES&univ\\_search=0&univA=1&univB=1&LIBS=&procname=&program\\_search=2&report=1&page\\_no=1&output\\_sql\\_switch=TRUE&database\\_type=RCRAINFO](http://oaspub.epa.gov/enviro/fii_master.fii_retrieve?fac_search=handler_id&fac_value=GAD003269578&fac_search_type=Beginning+With&postal_code=&location_address=&add_search_type=Beginning+With&all_programs=YES&univ_search=0&univA=1&univB=1&LIBS=&procname=&program_search=2&report=1&page_no=1&output_sql_switch=TRUE&database_type=RCRAINFO) Accessed: September 4, 2009.

<sup>40</sup> This number is in constant 2009 dollars, and represents the Office of Superfund Remediation and Technology Innovation's (OSRTI) analysis of end of FY 2009, cumulative, site-specific, agency-wide, direct expenditures of Superfund appropriated and reimbursable resources extracted from the EPA Integrated Financial Management System (IFMS). Expenditure data include all direct costs, including, but not limited to site assessments, remedial, removal, enforcement, and oversight costs. Data do not include indirect costs, costs incurred by private or other parties performing response actions, or future costs to be incurred at these sites and may not be used for cost recovery purposes. See Memorandum from Elaine Eby, EPA, to The Record, Re: "Superfund Cost Estimates for Selected Classes of Facilities," November 30, 2009.

<sup>41</sup> Expenditure data are converted into 2009 constant dollars using GDP deflation factors derived from: Table 10.1—Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2009, from the Budget of the U.S., FY 2005. Online via GPO access.

and in 1964 detectable levels of arsenic were found in the soil, groundwater and surface water. This site was added to the NPL in 1987, and remediation efforts included demolishing the 17 abandoned buildings and the removal of more than 50,000 tons of arsenic-contaminated waste and soils, with a projected cost of \$124 million.<sup>42 43</sup>

Thus, EPA's past experience with some NPL sites leads it to conclude that chemical manufacturing facilities are likely to and continue to present a substantial financial burden that could be met by financial responsibility requirements.

EPA believes that common corporate structures and interrelated corporate failures within the Chemical Manufacturing industry also increase the likelihood of uncontrolled releases of hazardous substances being left unmanaged, increasing risks. In particular, the existence of a parent-subsidiary relationship can present several risks. First, corporate structures may allow parent corporations to shield themselves from liabilities of their subsidiaries.<sup>44</sup> In a 2005 study, the Government Accountability Office (GAO) cited chemical manufacturing as an example of businesses at risk of incurring substantial liability and transferring the most valuable assets to a parent that could not be reached for cleanup.<sup>45</sup>

Second, EPA believes that chemical manufacturing sites tend to change ownership, making the assignment of appropriate responsibility for remediation costs difficult. For instance, a 500–600 acre Brunswick, Georgia site that was most recently owned by LCP Chemicals has a long history of turnover between owners. The site was originally owned and operated by a petroleum refinery from 1919 until 1930, while portions of the site were also owned by a paint manufacturer and an energy provider. Allied Chemical bought the site in the mid-1950s and manufactured caustic soda, chlorine, and hydrochloric acid, until the site was purchased by LCP Chemicals in 1979. Investigation of

<sup>42</sup> Congress of the U.S. Congressional Budget Office. A CBO Study. 1994. "The Total Cost of Cleaning Up Non-Federal Superfund Sites," at p. 22. Available at: <http://www.cbo.gov/ftpdocs/48xx/doc4845/EntireReport.pdf>.

<sup>43</sup> EPA. Mid-Atlantic Superfund Site, Whitmore Laboratories, Current Site Information. Accessed at: <http://www.epa.gov/reg3hwmd/npl/PAD003005014.htm>.

<sup>44</sup> *United States v. Bestfoods*, 542 U.S. 51, 61 (1998).

<sup>45</sup> U.S. Government Accountability Office 2005. "Environmental Liabilities: EPA Should Do More to Ensure That Liable Parties Meet Their Cleanup Obligations." Report to Congressional Requesters. GAO-05-658, pp. 21–24. Accessed at: <http://www.gao.gov/highlights/d05658high.pdf>.

the area has found on-site contamination of mercury, lead and PCBs. Since being added to the NPL, several different potentially responsibility parties have been identified.<sup>46</sup>

Furthermore, there have been a number of bankruptcies in the Chemical Manufacturing industry that resulted in or will likely require significant Federal responses, such as:

- When the owner/operator of Vertac Chemical Company filed for bankruptcy, it left behind nearly 29,000 drums of chemical waste in Jacksonville, Arkansas. EPA's remediation efforts included the incineration and off-site shipment of these drums, as well as clean-up of contaminated soil and destruction of the remaining industrial structures. These efforts resulted in a cost to EPA of over \$127 million and ongoing disputes over legal responsibility.<sup>47</sup>

- Chemical releases from a Delaware chlorinated benzene manufacturing facility that went bankrupt in 2002 have led to contamination of soil, sediment, a groundwater aquifer, and nearby surface water. Cleanup at this site has included the completion of a groundwater barrier and pump-and-treat system and treatment of contaminated soils. As of 2005, EPA estimated that it had incurred about \$28 million in cleanup costs, and that the total cost will eventually rise to up to \$100 million.<sup>48</sup>

Considering all of this information, EPA concludes that the classes of facilities within the Chemical Manufacturing industry are among those for which EPA should develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b).

## 2. Petroleum and Coal Products Manufacturing (NAICS 324)

For purposes of this **Federal Register** notice, EPA has included the following classes of facilities that are encompassed by the NAICS code 324 definition of the "Petroleum and Coal Products Manufacturing" industry:

<sup>46</sup> EPA 2009. NPL Site Narrative for LCP Chemicals Georgia. Available at: <http://www.epa.gov/superfund/sites/npl/nar1458.htm>.

<sup>47</sup> EPA 2007. "Compliance and Enforcement Annual Results: FY2007 Superfund Enforcement." Available at: <http://www.epa.gov/compliance/resources/reports/endofyear/eoy2007/2007-sp-superfund.html>.

<sup>48</sup> U.S. Government Accountability Office. 2005. "Environmental Liabilities: EPA Should Do More to Ensure That Liable Parties Meet Their Cleanup Obligations." Washington, DC GAO-05-658, p.37. Available at: <http://www.gao.gov/cgi-bin/getrpt?GAO-05-658>.

facilities that transform crude petroleum and coal into usable products (e.g., gasoline, diesel fuel, asphalt base and coatings, heating oil, kerosene, and liquefied petroleum gas).<sup>49</sup> The dominant process in this industry sector (which we discuss in this notice) is petroleum refining which involves the separation of crude petroleum into component products through such techniques as fractionation, distillation, and/or cracking. (However, this industry sector includes activities, such as the production of coke oven products that are not produced at steel mills, including tar derivatives, ammonia, light oil derivatives, and coke oven gas.) Facilities in this industry sector share common characteristics, and are, thus, being identified as a group. At the same time, facilities included in the class differ, and thus, are properly considered to encompass multiple classes of facilities. The various classes in this **Federal Register** notice's definition of petroleum refining are involved in one or more of three general activities: (1) Fractionation; (2) straight distillation of crude oil; and (3) cracking. Depending on the product sought, any or all of these processes may be used. The operations that comprise this industry sector are all part of a sequential process of converting crude petroleum into marketable petroleum-based products, even though the intermediate and end products may differ.

Both because of the way that the facilities covered by this **Federal Register** notice fit together, and because of the range of activities that they cover, EPA believes petroleum and coal products manufacturing is properly identified as a group and considered to include multiple classes of facilities. Facilities not considered to be part of the Petroleum and Coal Products Manufacturing industry—that is, not part of NAICS 324—include establishments that focus primarily on the further processing of refined petroleum products to produce products, such as petrochemicals. For example, facilities that are exclusively involved with any of the following processes are not considered to be part of NAICS 324—the Petroleum and Coal Products Manufacturing industry:

- Manufacturing paper mats and felts and saturating them with asphalt or tar into rolls and sheets (NAICS code 322121);

<sup>49</sup> Within NAICS 324 belongs the following: Petroleum Refineries (NAICS 32411); Asphalt Paving, Roofing, and Saturated Materials Manufacturing (NAICS 32412); and Other Petroleum and Coal Products Manufacturing (NAICS 32419).

- Manufacturing synthetic lubricating oils and greases (NAICS code 325998);<sup>50</sup>

- Recovering natural gas and/or liquid hydrocarbons from oil and gas field gases (NAICS code 21111);

- Manufacturing acyclic and cyclic aromatic hydrocarbons (i.e., petrochemicals) from refined petroleum or liquid hydrocarbons (NAICS code 325110);

- Manufacturing cyclic and acyclic chemicals (except petrochemicals) (NAICS code 32519); and

- Manufacturing coke oven products in steel mills (NAICS code 331111).

#### a. Releases and Exposure to Hazardous Substances

EPA's research indicates that while the petroleum refining industry has facilities throughout the U.S., it is also geographically concentrated, with the highest number of facilities located in Texas (27 facilities), California (20 facilities), and Louisiana (19 facilities).<sup>51</sup> Releases to the environment have resulted, in some situations, in subsequent exposure of humans, organisms, and ecosystems to hazardous substances on a regional scale.

As was previously discussed, the Agency's TRI data revealed that the Petroleum and Coal Products Manufacturing industry released approximately 46 million pounds of CERCLA hazardous substances, or approximately 2.0 percent of the total on-site releases of hazardous substances by U.S. industry reporting to TRI.<sup>52</sup> This overall percentage has remained relatively stable since 2001, ranging from approximately 41 million pounds of total on-site releases of hazardous substances in 2003 to approximately 47 million pounds in 2006. In 2007, the majority of on-site releases of hazardous substances were to surface water and air, with additional releases to the land and underground injection.<sup>53</sup>

There are a large number of active facilities operating in the U.S., and thus, there is potential for releases of and exposure to hazardous substances. In 2007, the U.S. Census Bureau estimated

<sup>50</sup> It should be noted, however, that some of these processes fall within classes identified elsewhere in this **Federal Register** notice—in this case, the classes within NAICS 325.

<sup>51</sup> Energy Information Administration. U.S. Department of Energy. "Refinery Capacity Report 2009." Released June 25, 2009. Available at: [http://www.eia.doe.gov/oil\\_gas/petroleum/data\\_publications/refinery\\_capacity\\_data/refcapacity.html](http://www.eia.doe.gov/oil_gas/petroleum/data_publications/refinery_capacity_data/refcapacity.html).

<sup>52</sup> See TRI data from Bill Kline, EPA. "Onsite Releases of ATSDR Hazardous Substances Reported to TRI for 2001 through 2007, By Industry and Year," October 8, 2009.

<sup>53</sup> Ibid.

the number of active petroleum and coal products manufacturing facilities at approximately 2,300. Of this total, there are approximately 190 operating petroleum refining facilities.<sup>54</sup> Currently operating petroleum refining facilities tend to be very large, high-volume facilities. For example, the aggregate output of the 93 U.S. petroleum refineries listed on the Financial Reporting System (FRS)<sup>55</sup> was 14.17 million barrels per calendar day in 2007.<sup>56</sup> Because refineries tend to be operated for decades, there is a long timeframe for potential releases and exposure of hazardous substances to occur. In addition, because of their need for large amounts of cooling water for operations, refineries tend to be located near navigable waterways or on the seashore, which likely increases the potential to impact groundwater, surface water, aquatic biota, and aquatic vegetation. Other impacts to terrestrial vegetation, wetlands, wildlife, soils, air, cultural resources, and humans that use these resources recreationally or for subsistence also are likely.

Facilities in the Petroleum and Coal Products Manufacturing industry also generate significant quantities of hazardous wastes, which may increase the risk of releases of hazardous substances. According to the 2007 RCRA BR, approximately 4.2 million tons of hazardous waste was generated by this industrial sector (second only to the Chemical Manufacturing industry). These wastes, which include primary and secondary sludges, spent catalysts, filter cakes, sour water, heavy ends (distillation bottoms), dissolved air/nitrogen flotation (DAF/DNF), flotation debris, waste soils, oily sludge, tank bottom sludge, clarified slurry oil, and tank bottoms<sup>57</sup> have the potential to result in adverse environmental consequences if released to the environment. Hazardous wastes generated by the Petroleum and Coal Products Manufacturing industry can contain significant concentrations of

<sup>54</sup> U.S. Census Bureau, 2009. 2007 Economic Census. Accessed at: [http://factfinder.census.gov/servlet/IBQTable?\\_bm=y&-ds\\_name=EC073111&-NAICS2007=324110&-ib\\_type=NAICS2007&-geo\\_id=&-industry=324110&-lang=en](http://factfinder.census.gov/servlet/IBQTable?_bm=y&-ds_name=EC073111&-NAICS2007=324110&-ib_type=NAICS2007&-geo_id=&-industry=324110&-lang=en).

<sup>55</sup> FRS is a reporting system operated by the Energy Information Administration (EIA) through which major energy-producing companies based in the U.S. annually report their worldwide financial and operating data on a uniform and standardized basis via Form EIA-28.

<sup>56</sup> EIA Official Statistics from the U.S. Government, 2009. U.S. and Foreign Petroleum Refining Statistics for FRS Companies. Accessed at: <http://tonto.eia.doe.gov/cfapps/frs/frstable.cfm?tableNumber=28&startYear=1998&endYear=2007>.

<sup>57</sup> See "Wastes Description Generated by Petroleum Refineries (NAICS 3241xx)." November 4, 2009.

certain toxic chemicals (benzene, arsenic, and polycyclic aromatic hydrocarbons (PAHs)).

In some cases, these wastes have led to ground and surface water contamination when improperly managed. In particular, EPA's analysis of NPL sites shows that 30 currently listed NPL sites have been attributed to petroleum and coal products manufacturing processes; of this total, 22 have been attributed to petroleum refinery operations. Sites contaminated by these processes typically contain a number of different contaminants, including toxic organics, such as benzene, polychlorinated biphenyls, phenol, and VOCs; and heavy metals, such as barium, cadmium, chromium, copper, lead, selenium, and zinc. The Falcon Refinery provides an example of contamination resulting from petroleum refining.<sup>58</sup> The Falcon Refinery site occupies approximately 104 acres in San Patricio County, Texas. The site was proposed to be added to the NPL based on evidence that hazardous substances (including arsenic, barium, chromium, copper, lead, manganese, mercury, nickel, selenium, vanadium, zinc, and PAHs) have migrated or could potentially migrate from the facility to active fisheries and sensitive environments within the adjacent wetlands of Redfish Bay, Aransas Bay, and Corpus Christi Bay.

The Falcon Refinery operated intermittently since 1980, and is currently inactive. When in operation, the refinery operated at a capacity of 40,000 barrels per day with primary products consisting of diesel, fuel oil, jet fuel, kerosene, and naphtha. The Falcon Refinery processed material that consisted of not only crude oil, but also contained RCRA hazardous wastes, including EPA Hazardous Waste Nos. K048 (dissolved air flotation float), K049 (slop oil emulsion solids), K050 (heat exchanger bundle cleaning sludge), and K051 (API separator sludge). Other hazardous wastes at the site include: (1) Vinyl acetate, (2) cooling tower sludges containing chromium, (3) non-crude oil constituents detected in a pipeline spill, (4) untreated wastewater released inside tank berms, and (5) leaking drums.<sup>59</sup>

Another example demonstrating the release of hazardous substances at such facilities is the Tennessee Products site in Chattanooga, Tennessee.<sup>60</sup> The site

consists of two distinct source areas of contamination: (1) Certain areas in the flood plain containing uncontrolled coal-tar constituents; and (2) sediments along approximately 2.5 miles of Chattanooga Creek that were contaminated with coal-tar constituents. Contamination in the creek was caused, in part, by a former coal carbonization facility (coke plant). This facility was operated from approximately 1918 until 1987. Various companies operated the facility throughout its history. The Tennessee Products Corporation operated it the longest, from 1926 to 1964. Uncontrolled dumping of coal-tar wastes contaminated the facility, the groundwater underlying the facility, and sediments and surface water in Chattanooga Creek downstream of the facility. These coal-tar wastes contained high levels of various PAHs. Residents from nearby housing projects and homes in this urban area used Chattanooga Creek for swimming, playing, and fishing by both children and adults. After the Tennessee Department of Environment and Conservation issued a health advisory for the Creek in 1983 and a fish consumption advisory in 1992, EPA fenced a section of the Creek to prevent public access. After the site was listed on the NPL in 1995, EPA conducted a removal action that included removal of approximately 25,350 cubic yards of coal-tar and contaminated sediment from the site at a cost of \$12 million dollars.<sup>61</sup> From 2005 to 2007, a remedial action excavated approximately 107,000 tons of stabilized sediment from the creek channel and transported it for disposal at an off-site landfill. A protective barrier also was installed over 5,740 linear feet of creek channel to guard against potential recontamination.<sup>62</sup>

In addition to sites that have been listed on the NPL, EPA notes that many petroleum refineries, as part of their operations, have released and may be continuing to release hazardous substances to the environment, including to groundwater.<sup>63</sup> In certain

[www.epa.gov/region4/waste/npl/npltn/tnprod/chtgcrkppf.pdf](http://www.epa.gov/region4/waste/npl/npltn/tnprod/chtgcrkppf.pdf).

<sup>61</sup> Ibid.

<sup>62</sup> EPA. Site Summary for Tennessee Products (Chattanooga Creek). Available at: <http://www.epa.gov/Region4/waste/npl/npltn/tennprtn.htm#progress>.

<sup>63</sup> RCRA Facility Investigations (RFIs) document releases to the environment from regulated units subject to corrective action under Subtitle C of RCRA. These RFIs are used to characterize the nature, extent, and rate of migration of contaminant releases to soils, ground water, subsurface gas, air, and surface water. They also provide guidance to the regulatory agency to determine if interim corrective measures may be necessary. EPA has reviewed RFIs from petroleum refineries and finds that released hydrocarbons are being recovered

instances, the amount of hydrocarbons released to the groundwater is such that these refineries are actually pumping out the hydrocarbons from the groundwater table, and recovering them back in the refinery,<sup>64</sup> which demonstrates the significant extent to which these materials have been released to the environment.

#### b. Severity of Consequences Resulting From Releases and Exposure to Hazardous Substances

The severity of the consequences impacting human health and the environment as a result of releases and exposure of hazardous substances at petroleum and coal products manufacturing processes is evident by analyzing a number of factors. Specifically, the severity of consequences posed by this industry sector is evident in the large costs associated with past and estimated future costs necessary to protect public health and the environment through what are often extensive and long-term remediation efforts. In other words, the documented expenditures reflect efforts to correct the realized risks from petroleum and coal products manufacturing facilities. These facilities release hazardous substances, which have, in some instances, resulted in contamination that requires long-term management and treatment. Remediation of these sites, therefore, has been historically costly. For the NPL sites identified as petroleum refineries in the NAICS 324 category, EPA has spent approximately \$250 million through FY 2009.<sup>65,66</sup> Thus, EPA's past

from the groundwater and recovered and reprocessed into the facilities oil refining process. See, for example, the Closure and Corrective Action Permit of an Oklahoma Refinery, which includes a "Light Non-Aqueous Phase Liquid (LNAPL) Recovery Plan" (OKD058078775-PC), and which is available in the docket for this **Federal Register notice**.

<sup>64</sup> Ibid.

<sup>65</sup> This number is in constant 2009 dollars, and represents the Office of Superfund Remediation and Technology Innovation's (OSRTI) analysis of end of FY 2009, cumulative, site-specific, agency-wide, direct expenditures of Superfund appropriated and reimbursable resources extracted from the EPA Integrated Financial Management System (IFMS). Expenditure data include all direct costs, including, but not limited to site assessments, remedial, removal, enforcement, and oversight costs. Data do not include indirect costs, costs incurred by private or other parties performing response actions, or future costs to be incurred at these sites and may not be used for cost recovery purposes. See Memorandum from Elaine Eby, EPA, to The Record, Re: "Superfund Cost Estimates for Selected Classes of Facilities," November 30, 2009.

<sup>66</sup> Expenditure data are converted into 2009 constant dollars using GDP deflation factors derived from: Table 10.1—Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2009,

Continued

<sup>58</sup> EPA. NPL Site Narrative for Falcon Refinery. Available at: <http://www.epa.gov/superfund/sites/npl/nar1667.htm>.

<sup>59</sup> Ibid.

<sup>60</sup> EPA Superfund Update. August 2002. Proposed Plan Fact Sheet for Cleanup of Chattanooga Creek—Tennessee Products Superfund Site, Chattanooga, Hamilton County, Tennessee. Available at: <http://>

experience with these sites leads it to conclude that petroleum and coal products manufacturing facilities may be likely to continue to present a substantial financial burden that could be met by financial responsibility requirements. Examples include:

- The Indian Refinery—Texaco Lawrenceville site, located in Lawrenceville, Illinois, was active as a petroleum refinery from the early 1900s until 1995. The refinery has been inactive since November 1995, and demolition activities began in June 1998. During its operation, the refinery produced many products. A variety of waste products was also generated and disposed of or released on and off-site. Petroleum products and hazardous substances, including an acidic sludge (lube oil acid sludge and lube oil filter cake sludge), PAHs, benzene, toluene, ethyl-benzene, xylene, cadmium, lead, and other metals have been detected in surface waters, soil, and in groundwater on or adjacent to the site. This site is being addressed in two stages—immediate actions and long-term actions, focusing on cleanup of the entire (approximately 900 acre) site. The remedial investigation and feasibility study are still ongoing.<sup>67</sup>

- The Double Eagle Refinery and Fourth Street Abandoned Refinery, located adjacent to each other in Oklahoma County, Oklahoma, were proposed for listing on the NPL in 1988, subsequently remediated, and deleted from the NPL in 2008. The Double Eagle Refinery operated through 1980 and the Fourth Street Refinery ceased operating in the late 1960s or early 1970s. Both facilities collected, stored, and re-refined used oils. The principal hazardous substances found at the 12-acre Double Eagle Refinery site in contaminated soils and sediments were xylene, ethylbenzene, and trichloroethane, and lead was found in contaminated sludge. Principal

hazardous substances found at the 27-acre Fourth Street Abandoned Refinery site in contaminated soils and sediments were phenanthrene and naphthalene, and lead and chrysene were found in contaminated sludge. Cleanup costs were estimated at around \$31 million, with over \$21 million for the Double Eagle Refinery site and over \$11 million for the Fourth Street Abandoned Refinery site.<sup>68</sup>

Considering all of this information, EPA concludes that the Petroleum and Coal Products Manufacturing industry (NAICS 324) consists of classes of facilities for which EPA should develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b).

### 3. Electric Power Generation, Transmission, and Distribution (NAICS 2211)

For purposes of this **Federal Register** notice, EPA has included the following classes of facilities that are encompassed by the NAICS code 2211 definition of the Electric Power Generation, Transmission and Distribution (NAICS 2211): Facilities primarily engaged in generating, transmitting, and distributing electric power. Establishments in this industry group may perform one or more of the following activities: (1) Generate electric energy; (2) operate transmission systems that convey the electricity from the generation facility to the distribution system; and (3) operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.

Various sources of energy can be converted into electric energy or electricity. The major, or dominant, sources include fossil fuels, uranium, and water. About 72 percent of electric power generation in the U.S., however, comes from fossil fuels (*i.e.*, coal, oil, or gas). Coal and natural gas are currently the dominant fossil fuels used by the industry. The use of coal results in large quantities of solid waste, including coal combustion residuals (CCR).<sup>69</sup>

<sup>68</sup> EPA. 2009. NPL Site Status Summary for Double Eagle Refinery. Accessed at: <http://www.epa.gov/region6/6sf/pdffiles/0601029.pdf>; U.S. EPA. 2009. NPL Site Status Summary for Fourth Street Abandoned Refinery. Accessed at: <http://www.epa.gov/earth1r6/6sf/pdffiles/0601297.pdf>; and Final Close Out Report, Fourth Street Abandoned Refinery Superfund Site, EPA Region 6 Superfund Division, March, 2006.

<sup>69</sup> U.S. Department of Energy, Energy Information Administration. "Electric Power Industry Overview 2007." Available at: [www.eia.doe.gov/cneaf/electricity/page/prim2/toc2.html](http://www.eia.doe.gov/cneaf/electricity/page/prim2/toc2.html).

The majority of the electricity generated in the U.S. is produced by facilities that employ steam turbine systems. The process of generating electricity from steam comprises four parts: A heating subsystem (fuel to produce the steam), a steam subsystem (boiler and steam delivery system), a steam turbine, and a condenser (for condensation of used steam). Heat for the system is usually provided by the combustion of coal, natural gas, or oil. The fuel is pumped into the boiler's furnace. The boilers generate steam in pressurized vessels in small boilers or in water-wall tube systems in modern utility and industrial boilers. High-temperature, high-pressure steam drives turbine blades, which power the generator to produce electricity.<sup>70</sup>

Wastes from the combustion of fossil fuels include fly ash, bottom ash, boiler slag, and flue gas desulfurization materials. Fly ash is lightweight, uncombusted material that is carried out of the boiler with flue gases. The fly ash is captured in the exhaust stack by electrostatic precipitators, fabric filters, mechanical collectors, or scrubbers. Bottom ash is heavier uncombusted material that settles to the bottom of the boiler. Bottom ash does not melt and, therefore, remains in the form of unconsolidated ash. Boiler slag is uncombusted material that settles to the bottom of the boiler. Slag, unlike bottom ash, forms when operating temperatures exceed ash fusion temperature, and remains in a molten state until it is drained from the boiler bottom. Flue gas desulfurization material is produced during the process of removing sulfur oxide gases from the flue gases using wet or dry scrubbers.<sup>71</sup> In addition, non-combustion wastes, such as cooling, process, and storm water containing hazardous substances, such as chlorine and heavy metals are also generated and discharged into surface waters. Burning of fossil fuels also creates air emissions of hazardous substances, such as VOCs, organic hydrocarbons, and metals.<sup>72</sup>

<sup>70</sup> EPA. September 1997. "Profile of the Fossil Fuel Electric Power Generation Industry." Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/fossil.html>.

<sup>71</sup> EPA. March 1999. "Report to Congress: Wastes from the Combustion of Fossil Fuels, Volume 2, Methods, Findings, and Recommendations" (EPA530-R-99-010). Available at: [http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/volume\\_2.pdf](http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/volume_2.pdf).

<sup>72</sup> EPA. September 1997. "Profile of the Fossil Fuel Electric Power Generation Industry," Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/fossil.html>.

from the Budget of the U.S., FY 2005 Online via GPO access.

<sup>67</sup> EPA. 2009. NPL Fact Sheet for Indian Refinery—Texaco Lawrenceville. Accessed at: <http://www.epa.gov/region5superfund/npl/illinois/ILD042671248.htm>; Public Health Assessment, Indian Refinery—Texaco Lawrenceville (a/k/a. Texaco Incorporated Lawrenceville Refinery) Lawrenceville, Lawrence County, Illinois, CERCLIS No. ILD042671248. Prepared by Illinois Department of Public Health under Cooperative Agreement with the Agency for Toxic Substances and Disease Registry, March 31, 2000. Summary accessed at: [http://www.atsdr.cdc.gov/HAC/pha/indian/ind\\_p1.html#summary](http://www.atsdr.cdc.gov/HAC/pha/indian/ind_p1.html#summary); and U.S. Department of the Interior U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, and Illinois Environmental Protection Agency, Final Preassessment Screen Determination for the Former Indian Refinery NPL Site, June 27, 2003. Accessed at: <http://www.fws.gov/midwest/LawrencevilleNRDA/documents/PASD.pdf>.

#### a. Releases and Exposure to Hazardous Substances

EPA's research indicates that the Electric Power Generation, Distribution, and Transmission industry operates on a large scale, with releases to the environment (and, in some situations subsequent exposure to humans, organisms, and ecosystems) of hazardous substances on a similarly large scale. As an indication of the scope or scale of this industry, the Electric Power, Generation, Distribution, and Transmission industry reported high levels of on-site releases of hazardous substances to TRI—third in quantity after Hardrock Mining and Chemical Manufacturing. That is, the Agency's 2007 TRI data<sup>73</sup> revealed that the Electric Power Generation, Transmission, and Distribution industry (NAICS 2211) reported 161 million pounds of on-site releases of hazardous substances, or approximately 7.5 percent of the total on-site releases of hazardous substances by U.S. industry reporting to TRI.<sup>74</sup> Of this total, 93.8 percent (or approximately 150 million pounds) was released from fossil fuel electric power generation, primarily to the land, with additional on-site releases to the air and surface water. This overall quantity of on-site releases of hazardous substances has been declining somewhat, ranging from approximately 175 million pounds of total on-site releases of hazardous substances in 2005, to approximately 163 million pounds in 2006.<sup>75</sup> The types of hazardous substances that have been released include hydrogen fluoride; vanadium, zinc, copper, and lead compounds; ammonia; and arsenic, cobalt, barium, and selenium compounds; a number of the hazardous substances that are released or potentially released, including hydrogen fluoride and arsenic, are very toxic.

The industry reported approximately 16,000 tons of RCRA hazardous waste generated in the 2007 RCRA BR. However, coal combustion residuals are a very large industrial waste stream containing arsenic, selenium, mercury, and other toxic metals, and dwarfing the volume of hazardous waste generated in

the U.S. In 2007, 131 million tons of CCRs were generated in the U.S., with 75 million tons being disposed of in landfills and surface impoundments, 49.3 million tons being beneficially used, and 6.7 million tons being placed in minefilling operations. These materials, which include fly ash, bottom ash, boiler slag (all composed predominantly of silica and aluminosilicates), and flue gas desulfurization materials (predominantly Ca-SO<sub>x</sub> compounds), have the potential to result in adverse environmental consequences if not properly managed.

There are a large number of facilities operating in the U.S., and thus, there is potential for releases of and exposure to hazardous substances. While estimates of the number of active facilities in this class vary, in 2007, the Census Bureau estimated that there were 9,642 such facilities in the U.S., including 1,270 fossil fuel electric power generation facilities.<sup>76</sup>

In some cases, these wastes have led to ground and surface water contamination when improperly managed. In particular, the Agency's assessment of CCRs has documented evidence of proven damages<sup>77</sup> to groundwater or surface water in 27 damage cases involving CCRs—17 to groundwater, and 10 to surface water, including ecological damages in seven of the ten cases.<sup>78</sup> Sixteen of the 17 proven damages to groundwater involved disposal in unlined units (for the remaining unit it is unclear whether a liner was present), which continues to occur. EPA also has identified 40 cases of potential damage<sup>79</sup> to groundwater or surface water.<sup>80</sup> In one recent damage

<sup>76</sup> U.S. Census Bureau, 2007 Economic Census. Available at: <http://factfinder.census.gov>.

<sup>77</sup> See footnote 19.

<sup>78</sup> The 24 cases identified in EPA's "Coal Combustion Waste Damage Case Assessments," July 9, 2007, available at: <http://www.regulations.gov/fdmspublic/component/main?main=Document-Detail&d=EPA-HQ-RCRA-2006-0796-0015>; with the addition of Martins Creek, Pennsylvania, where in August 2005, a dam confining a 40-acre CCR surface impoundment failed, resulting in the discharge of 100 million gallons of coal ash and contaminant water. Gambrills, MD; and Kingston/TVA, TN.

<sup>79</sup> Per the May 2000 Regulatory Determination (see 65 FR 32224), potential damage cases are those with (i) documented exceedances of primary MCLs or other health-based standards only directly beneath or in very close proximity to the waste source, and/or (ii) documented exceedances of secondary MCLs or other non-health-based standards on-site or off-site.

<sup>80</sup> The 39 cases of potential damages from CCR identified in EPA's "Coal Combustion Waste Damage Case Assessments," July 9, 2007 are available at: <http://www.regulations.gov/fdmspublic/component/main?main=Document-Detail&d=EPA-HQ-RCRA-2006-0796-0015>; excluding the four damage cases from oil combustion wastes, but including Battlefield Golf

case example, BBBS Sand and Gravel Quarries, in Gambrills, Maryland, a consent order was filed to settle an environmental enforcement action that was taken against the owner of a sand and gravel quarry and the owner of two Maryland coal fired power plants (defendants) that generated the wastes that contaminated the public drinking water wells in the vicinity of the sand and gravel quarry. Beginning in 1995, fly ash and bottom ash from the two power plants were used to fill excavated portions of two sand and gravel quarries. Groundwater samples collected in 2006 and 2007 from residential drinking water wells near the site indicated that, in certain locations, hazardous substances, including heavy metals and sulfates, were present at or above groundwater quality standards. Under the terms of the consent order, the defendants are required to pay a fine, remediate the groundwater in the area, and provide replacement water supplies for 40 properties.

In addition to these cases of proven or potential damage, EPA's analysis of the NPL shows that four sites containing CCRs have been listed on the NPL: (1) Chisman Creek, Virginia; (2) Salem Acres, Massachusetts; (e) Lemberger Landfill, Wisconsin; and (4) U.S. Department of Energy Oakridge Reservation, Tennessee. At these sites, groundwater and surface water contaminated with a variety of hazardous substances, including arsenic, nickel, selenium, sulfate, as well as VOCs, trichloroethylene, vinyl chloride, and methylene chloride, have been documented.

#### b. Severity of Consequences Resulting From Releases and Exposure to Hazardous Substances

The severity of the consequences impacting public health and the environment as a result of releases and exposure of hazardous substances posed by the Electric Power Generation, Distribution, and Transmission industry is evident in the large costs associated with past and estimated future costs necessary to protect public health and the environment through what are often extensive and long-term remediation efforts. That is, these facilities release hazardous substances which have, in some instances, resulted in contamination that requires long-term management and treatment. Remediation of these sites, therefore,

Course, Chesapeake, Virginia. This site is a 216-acre site contoured with 1.5 million tons of fly ash as fill material (considered a beneficial use under Virginia's Administrative Code, without a liner, as long as the fly ash was placed at least two feet above groundwater and covered by an 18-inch soil cap).

<sup>73</sup> The analysis for this notice was conducted based on 2007 data. Though more recent data became available before publication of this **Federal Register** notice, the Agency did not repeat its analysis—rather, the Agency plans to include more recent data when it develops the proposed rule.

<sup>74</sup> See TRI data from Bill Kline, EPA. "On-site Releases of ATSDR Hazardous Substances Reported to TRI for 2001 through 2007, by Industry and Year," October 8, 2009.

<sup>75</sup> See TRI data from Bill Kline, EPA. "On-site Releases of ATSDR Hazardous Substances Reported to TRI for 2001 through 2007, by Industry and Year," October 8, 2009.

has been quite costly. For example, the costs to clean up the damage from the recent catastrophic release in Tennessee of over one billion gallons of coal ash from the Tennessee Valley Authority's Kingston Plant has been estimated to range from \$933 million to \$1.2 billion.<sup>81</sup> In addition, for the Chisman Creek NPL site, EPA has spent approximately \$1.4 million through September 2009.<sup>82 83</sup>

Considering all of this information, and considering that many facilities within the Electric Power Generation, Distribution and Transmission industry generate coal combustion residuals, EPA believes that this industry consists of classes of facilities for which EPA should develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b).

#### *E. Additional Classes of Facilities Requiring Further Study*

As mentioned previously in this notice, EPA has identified classes of facilities within four industry sectors—the Waste Management and Remediation Services industry (NAICS 562); the Wood Product Manufacturing industry (NAICS 321); the Fabricated Metal Product Manufacturing industry (NAICS 332); and the Electronics and Electrical Equipment Manufacturing industry (NAICS 334 and 335)—as well as facilities engaged in the recycling of materials containing CERCLA hazardous substances as those for which the Agency plans to conduct further in-depth study before deciding whether to begin the regulatory development process. The classes of facilities within these industry sectors comprise a large portion of the sites on the NPL (see Table 1), and ranked high, in some

cases, in the Agency's analyses of the BR and TRI data (see Tables 2 and 3). However, for the reasons described below, EPA is not prepared at this time to identify these classes of facilities as those for which the Agency will begin the regulatory development process. The Agency believes that a more robust analysis of the NPL information, and review of data from State cleanup and other types of remediation programs (e.g., EPA's Brownfields program), as well as any other relevant data, should first be conducted.

#### 1. Waste Management and Remediation Services (NAICS 562) and Facilities Engaged in the Recycling of Materials Containing CERCLA Hazardous Substances

The Waste Management and Remediation Services industry ranked highest in the Agency's NPL analysis (with 465 sites), and ranked high on both the BR and TRI analyses (see Tables 1, 2 and 3). This would appear, at first glance, to indicate that the classes of facilities within this industry sector should also be considered for development of proposed regulations. However, because of the way that this category is tracked by the Superfund program (see footnote 14), the industrial categories that fall within it are not as clearly delineated as was the case for some of the other sectors and, as a result, the data analyzed for purposes of this notice provided only a limited categorization of the types of facilities that are included in this category.

Likewise, facilities that recycle materials containing CERCLA hazardous substances presented a similar situation. As classified on the NPL, this sector includes an assortment of operations, which EPA is not currently prepared to characterize.

Therefore, before EPA decides to develop a financial responsibility regulation under CERCLA Section 108(b), we believe more information is needed regarding the types of facilities included in these categories, and the risks that they might present. Thus, the Agency is identifying these sectors as among those it plans to further evaluate regarding financial responsibility requirements under CERCLA Section 108(b).

#### 2. Wood Product Manufacturing (NAICS 321), Fabricated Metal Product Manufacturing (NAICS 332), and Electronics and Electrical Equipment Manufacturing (NAICS 334 and 335)

The three remaining industry sectors identified in the NPL analysis—the Wood Product Manufacturing industry, the Fabricated Metal Product

Manufacturing industry, and the Electronics and Electrical Equipment Manufacturing industry—are among the industry sectors that have undergone significant structural or operational changes in recent years. For example, regulatory changes have affected the types of chemical substances used to treat wood and the process operations at wood preserving sites.<sup>84</sup> In the case of each of these three sectors, EPA believes it is necessary to further investigate the extent to which these changes have affected the risks that each of these sectors present. Thus, the Agency is identifying these sectors as among those it plans to further evaluate regarding financial responsibility requirements under CERCLA Section 108(b).

### III. Request for Public Comment

Consistent with the Agency's approach in the July 2009 notice, EPA is not requesting comment in this **Federal Register** notice on its methodology for determining that the Chemical Manufacturing industry, the Petroleum and Coal Products Manufacturing industry, and the Electrical Power and Generation, Transmission, and Distribution industry represent classes of facilities for which EPA plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). The Agency is, however, interested in receiving comments on several issues.

With respect to the classes within those industries—the Chemical Manufacturing industry, the Petroleum and Coal Products Manufacturing industry, and the Electrical Power and Generation, Transmission, and Distribution industry—the Agency requests information on whether EPA should develop a proposed regulation under CERCLA Section 108(b) for any class or classes, or for the industry as a whole, including information demonstrating why such financial responsibility requirements would not be appropriate for those particular class(es).

The Agency also requests the following information (for any or all of

<sup>81</sup> See "TVA Reports 2009 Fiscal Year Third Quarter Results." Available at: [http://www.tva.gov/news/releases/julsep09/3rd\\_quarter.htm](http://www.tva.gov/news/releases/julsep09/3rd_quarter.htm).

<sup>82</sup> This number is in constant 2009 dollars, and represents the Office of Superfund Remediation and Technology Innovation's (OSRTI) analysis of end of FY 2009, cumulative, site-specific, agency-wide, direct expenditures of Superfund appropriated and reimbursable resources extracted from the EPA Integrated Financial Management System (IFMS). Expenditure data include all direct costs, including, but not limited to site assessments, remedial, removal, enforcement, and oversight costs. Data do not include indirect costs, costs incurred by private or other parties performing response actions, or future costs to be incurred at these sites and may not be used for cost recovery purposes. See Memorandum from Elaine Eby, EPA, to The Record, Re: "Superfund Cost Estimates for Selected Classes of Facilities," November 30, 2009.

<sup>83</sup> Expenditure data are converted into 2009 constant dollars using GDP deflation factors derived from: Table 10.1—Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2009, from the Budget of the U.S., FY 2005. Online via GPO access.

<sup>84</sup> EPA, September 1995. "Profile of the Lumber and Wood Products Industry." Office of Enforcement and Compliance Assurance, EPA 310-R-95-006. Available at: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/lmbrwdsn.pdf>; and EPA, April 17, 1996. "Final Best Demonstrated Available Technology (BDAT) Background Document for Wood Preserving Wastes FO32, FO34, and FO35." Available at: [http://www.epa.gov/waste/hazard/tsd/ldr/wood/bdat\\_bd.pdf](http://www.epa.gov/waste/hazard/tsd/ldr/wood/bdat_bd.pdf), and EPA, October 2001. "RCRA, Superfund & EPCRA Call Center Training Module." Available at: <http://www.epa.gov/waste/inforesources/pubs/hotline/training/drip.pdf>.

the industry categories discussed in this notice), which could inform its future actions:

- Data on facility operations within these industries, and on the classes within these industries.
  - Data on the risk profile for facilities in the various industries, including data addressing the scope of past and expected future environmental responses.
  - Data on the risk evaluation approaches used by various industries (or by industry insurers) when seeking (or providing) insurance or bonding coverage.
  - Data explaining how frequently various financial assurance mechanisms are used by the various sectors, and the factors causing some to be chosen over others.
  - Information demonstrating the extent to which facilities within the industry categories are currently subject to financial responsibility provisions under other federal or state requirements, and the manner in which these requirements are posed.
  - Information about existing Federal, State, Tribal, and local environmental requirements for the various industries, and how these might affect the environmental risks posed.
  - Information about financial responsibility instruments, particularly, information on the type and duration of financial instruments currently used to demonstrate financial responsibility, and on the default rates of those instruments.
  - Information EPA may consider in setting levels of financial responsibility under CERCLA 108(b) on the payment experience, including voluntary settlements, of:
    - commercial insurance,
    - surety bond industries, and
    - State cleanup programs and their participants.
- For purposes of developing any proposed regulations, EPA expects that it will be most useful to receive payment amounts on a site-specific basis (including site locations, facility type, and usage), the basis on which these payments were calculated (including the specific types of incidents and circumstances), and the types of liabilities for which the payments were made.
- Information and advice from the insurance and surety industries, and from their regulators and customers, on how they think they can best inform EPA as it pursues the regulatory development process. For example:
    - Are there particular companies, associations, producers, policyholders,

or regulators EPA should contact in the development of these requirements?

- What policy or other contractual terms should EPA consider specifying, and how will these support a sound financial responsibility program under CERCLA 108(b)?
- What are the maximum amounts of coverage that insurers or sureties offer for the various classes noted above, how have these varied over time, and what caused the variations?
- Information on the reliability, availability, and affordability of existing financial responsibility mechanisms. For example:
  - What has been the experience of environmental financial assurance program regulators who have attempted to access funds or compel performance assured by insurance, guaranties, surety bonds, letters of credit and self insurance?
  - What data have shown some of these mechanisms to be more effective than others?
  - If there were payment delays, what caused them?
  - If the payment of funds or desired performance did not occur, what factors contributed to this?
  - For regulators who do not accept self insurance, what experience or other information supports your reasons?
  - For regulators who do accept self insurance, what criteria (such as financial test ratios, and please be specific), ratings, or other criteria have been most effective in terms of striking an appropriate balance between allowing companies to use self-insurance when they can fulfill their obligations, and disallowing those that later could not or would not meet their obligations?
  - Can regulators provide data on specific sites that show that guarantees, or other instruments, have been difficult to enforce or are otherwise problematic?
  - Are there particular regulatory requirements that may affect (either by increasing or decreasing) the numbers and types of issuers, *e.g.* banks or insurers, that would be willing to offer coverage under CERCLA 108(b)?
  - What factors, including those that may be beyond the Agency's control, affect the availability of mechanisms and how do these factors operate?
  - What information should the Agency consider in assessing incremental, annual increases in the requirements?
  - Are there specific qualifications or other requirements for issuers that are necessary to ensure the payment of funds when needed? If so, how, if at all, would these qualifications affect the availability of coverage?

- For the various mechanisms, how are prices, for example, collateral requirements and fees, or insurance premiums, determined, and what information should EPA use to assess the costs of such coverage?
    - What factors or information are used by issuers to determine the amounts of coverage provided?
    - How do issuers determine what types of costs should be covered or excluded?
    - How are fees or coverage amounts adjusted to account for risk information, such as from risk assessments, site-specific exemptions, or positive risk management incentives?
    - Are there particular environmental financial responsibility programs that EPA should look to as models in the design and implementation of CERCLA 108(b). If so, what factors lead to their effectiveness or efficiency, and what independent assessments support these conclusions?
    - Alternatively, are there examples of practices that EPA should seek to avoid and what documentation supports these conclusions?
- As EPA evaluates the classes within the groups identified in this notice, in the course of developing a proposed regulation, or in the course of deciding whether to develop a proposed regulation, the Agency will consider information it receives on these issues.

#### IV. Conclusion

In today's notice, EPA has identified classes of facilities within (1) the Chemical Manufacturing industry (NAICS 325), (2) the Petroleum and Coal Products Manufacturing industry (NAICS 324), and (3) the Electric Power Generation, Transmission, and Distribution industry (NAICS 2211), as those for which EPA plans to develop, as necessary, a proposed regulation identifying appropriate financial responsibility requirements under CERCLA Section 108(b). EPA will carefully examine specific activities, practices, and processes involving hazardous substances at these facilities, as well as Federal and State authorities, policies, and practices to determine the risks posed by these classes of facilities and whether requirements under CERCLA Section 108(b) will effectively reduce these risks. Any financial responsibility regulations developed by the Agency as the result of its analysis will be proposed in the **Federal Register** for public notice and comment.

In addition, the Agency has identified classes of facilities within: (1) The Waste Management and Remediation Services industry (NAICS 562), (2) facilities engaged in the recycling of

materials containing CERCLA hazardous substances, (3) the Wood Product Manufacturing industry (NAICS 321), (4) the Fabricated Metal Product Manufacturing industry (NAICS 332), and (5) the Electronics and Electrical Equipment Manufacturing industry (NAICS 334 and 335), as classes of facilities that require further study before EPA begins development of a proposed regulation under CERCLA Section 108(b). Once the in-depth analysis is complete, the Agency will decide whether to begin development of a proposed regulation for these classes of facilities.<sup>85</sup>

Dated: December 30, 2009.

**Lisa P. Jackson,**

*Administrator.*

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## DEPARTMENT OF DEFENSE

### Defense Acquisition Regulations System

#### 48 CFR Parts 225 and 252

#### Defense Federal Acquisition Regulation Supplement; Foreign Participation in Acquisitions in Support of Operations in Afghanistan (DFARS Case 2009-D012)

**AGENCY:** Department of Defense (DoD).

**ACTION:** Proposed rule with request for comment.

**SUMMARY:** DoD is proposing to amend the Defense Federal Acquisition Regulation Supplement (DFARS) to implement: Waiver of the section 302(a) of the Trade Agreements Act of 1979, as amended, which prohibits acquisitions of products or services from non-designated countries, in order to allow acquisition from the nine South Caucasus/Central and South Asian (SC/CASA) states; and Determination of inapplicability of the Balance of Payments Program evaluation factor to offers of products (other than arms, ammunition, or war materials) from the SC/CASA states to support operations in Afghanistan.

<sup>85</sup> As part of developing proposed and final rules, the Agency will consider whether facilities within the classes identified in this notice that have RCRA permits or are subject to interim status requirements under RCRA, and already are subject to RCRA financial assurance and facility-wide corrective action requirements, also need to be subject to financial responsibility requirements under CERCLA Section 108(b). In addition, EPA is aware, and will consider in its development of proposed and final rules, that some facilities within the classes identified in this notice may be subject to other financial responsibility requirements.

**DATES:** Comment date: Comments on the proposed rule should be submitted in writing to the address shown below on or before March 9, 2009 to be considered in the formulation of the final rule.

**ADDRESSES:** You may submit comments, identified by DFARS Case 2009-D012, using any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>.

Follow the instructions for submitting comments.

- *E-mail:* [dfars@osd.mil](mailto:dfars@osd.mil). Include DFARS Case 2009-D012 in the subject line of the message.

- *Fax:* (703) 602-7887.

- *Mail:* Defense Acquisition Regulations System, Attn: Ms. Amy Williams, OUSD (AT&L) DPAP (DARS), IMD 3D139, 3062 Defense Pentagon, Washington, DC 20301-3062.

- *Hand Delivery/Courier:* Defense Acquisition Regulations System, Crystal Square 4, Suite 200A, 241 18th Street, Arlington, VA 22202-3402.

Comments received generally will be posted without change to <http://www.regulations.gov>, including any personal information provided.

**FOR FURTHER INFORMATION CONTACT:** Ms. Amy Williams, (703) 602-0328.

#### SUPPLEMENTARY INFORMATION:

##### A. Background

On July 9, 2009, the Deputy Secretary of Defense issued a waiver of the procurement prohibition of Section 302(a) of the Trade Agreements Act of 1979 with regard to acquisitions by the Department of Defense or by the General Services Administration, on behalf of DoD, in support of operations in Afghanistan. This waiver applies to offers of products and services from the following nine South Caucasus/Central and South Asian (SC/CASA) states: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. This waiver was authorized by the United States Trade Representative by letter of June 2, 2009.

In addition, the Deputy Secretary of Defense also made a determination that it would be inconsistent with the public interest to apply the provisions of the Balance of Payments Program to offers of products (other than arms, ammunition, or war materials) and construction materials from these SC/CASA states acquired in direct support of operations in Afghanistan. For purposes of this rule, the term “products other than arms, ammunition, or war materials” equates to the products listed at DFARS 225.401-70.

The draft proposed rule adds a new section 225.7704 to Subpart 225.77,

Acquisitions in Support of Operations in Iraq or Afghanistan, to specifically address the two determinations by the Deputy Secretary of Defense relating to acquisitions in support of operations in Afghanistan.

More specifically, in order to implement the waiver of the Trade Agreements Act of 1979 prohibition on acquisitions of products or services from non-designated countries, the proposed rule—

- Adds in the subpart on Trade Agreements (225.401 and 225.403) cross references to 225.7704-1;

- Adds alternates to the trade agreements provision and clause (252.225-7020 and -7021, with conforming changes to the provision and clause prescriptions at 225.1101 paragraphs (5) and (6)); and

- Adds a requirement to the clauses at 252.225-7021 and 252.225-7045 that the contractor shall inform its government of its participation in the acquisition and that it generally will not have such opportunity in the future unless its government provides reciprocal procurement opportunities to U.S. products and services and suppliers of such products and services.

In order to implement the determination of the inapplicability of the Balance of Payments Program to end products and construction material from the SC/CASA states, the proposed rule—

- Modifies Subpart 225.5, to provide that whenever the acquisition is in support of operations in Afghanistan, offers of end products (other than arms, ammunition, and war materials) from SC/CASA states shall be treated the same as qualifying country offers;

- Modifies Subpart 225.75, Balance of Payments Program, to provide exceptions in 225.7501(b)(1)(iii) and (b)(2), with cross references to 225.7704-2;

- Adds alternates to the Balance of Payments Program provisions and clauses at 252.225-7000, -7001, -7035, -7036-7044, and -7045, with conforming changes to the provision and clause prescriptions at 225.1101 paragraphs (1), (2), (10), and (11) and 225.7503.

Other changes:

- Definitions of “South Caucasus/Central and South Asian (SC/CASA) state,” SC/CASA state construction material, and “SC/CASA state end product” have been added at 225.003, because these terms are used in more than one subpart.

- Conforming change were made to the clause dates in 252.212-7001.

- A correction is made to Alternate I of 252.225-7035 to delete the phrase