NO. 14-1149

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

IN RE:

IDAHO CONSERVATION LEAGUE, EARTHWORKS, SIERRA CLUB, AMIGOS BRAVOS, GREAT BASIN RESOURCE WATCH, and COMMUNITIES FOR A BETTER ENVIRONMENT,

Petitioners.

PETITION FOR WRIT OF MANDAMUS

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GLOSSARY OF ABBREVIATIONS

APA	Administrative Procedure Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	Environmental Protection Agency
GAO	Government Accountability Office
RCRA	Resource Conservation and Recovery Act

INTRODUCTION

Idaho Conservation League, Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment ("Petitioners") petition this Court for a Writ of Mandamus requiring EPA to issue rules ensuring that industries that handle hazardous substances will have the financial means to clean up any inadvertent releases. More than thirty years ago, Congress directed EPA to issue such rules in the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). 42 U.S.C. § 9608(b). After an order from a federal district court, in 2009 and early 2010 EPA issued findings that financial assurance rules were warranted for four industries. 74 Fed. Reg. 37,213 (July 28, 2009); 75 Fed. Reg. 816 (Jan. 6, 2010). Despite the explicit directive from Congress and EPA's own findings, however, EPA has yet to issue such rules.

STATEMENT OF RELIEF SOUGHT

Petitioners seek an order finding EPA has unreasonably delayed issuing financial assurances rules required by law and directing EPA to finalize such rules by January 1, 2016, for the four industries already identified by EPA.

STATEMENT OF JURISDICTION

This Court has jurisdiction under the APA. 5 U.S.C. § 702. *See also id.* § 706(1). This Court has the authority to issue a writ of mandamus pursuant to the All Writs Act. 28 U.S.C. § 1651(a). This Court would have exclusive jurisdiction to review any final rule issued by EPA, *see* 42 U.S.C. § 9613(a), so this Court also

has jurisdiction to determine if EPA's delay is unreasonable. *Telecomm. Research & Action Ctr. v. F.C.C.*, 750 F.2d 70, 75 (D.C. Cir. 1984) (hereinafter "*TRAC*").

STATEMENT OF THE ISSUE PRESENTED FOR REVIEW

Whether EPA's failure to issue financial assurance rules for more than thirty years constitutes an unreasonable delay?

STATEMENT OF THE CASE

I. THE GOALS OF CERCLA.

Congress in 1980 enacted CERCLA "in response to the serious environmental and health risks posed by industrial pollution." *Burlington N. & Santa Fe Ry. Co. v. United States*, 556 U.S. 599, 602 (2009). CERCLA requires that parties responsible for hazardous substance pollution bear the cost of cleanup. *See* 42 U.S.C. § 9607. Often, however, the responsible parties include businesses that have been liquidated through bankruptcy, restructured to limit liability for environmental cleanup, or are otherwise unable to shoulder cleanup costs. *See* App. 605-06 (2005 GAO Report at 58-59).[1] Most of the costs for these "orphan" sites are borne by the public, through a trust fund known as the "Superfund." *See* 42 U.S.C. § 9611. The Superfund was initially funded by designated taxes, but since these taxes expired in 1995, funding has steadily decreased. *See* App. 555 (2005 GAO Report at 8); App. 289-90 (2010 GAO Report at 6-7).

[1] Exhibits have been filed as a separately-bound Appendix. Citations to "App. [number]" refer to the bates-stamped page number in the Appendix.

Public funding for cleanups is decreasing, but the number of sites requiring cleanup is not. EPA has estimated that one in four Americans lives within three miles of a hazardous waste site, and that more than 47,000 sites potentially require cleanup actions. *See* App. 401 (2008 GAO report at 1). EPA places the most contaminated of these sites on a list for priority remediation, known as the National Priorities List. *See* 42 U.S.C. § 9605. Between 2005 and 2009, EPA added an average of sixteen sites per year to the National Priorities List, and in 2010 EPA projected adding twenty to twenty-five sites per year between 2010 and 2015. *See* App. 311 (2010 GAO Report at 28). The cost of cleaning up even a single site can be quite high—according to a 2005 report, it will cost $140 million, on average, to clean up each of the 142 largest Superfund sites, for a total of almost $20 billion. App. 549 (2005 GAO Report at 2). Cleanup at sixty of these so-called mega-sites is already being funded either wholly or partly by the public. *Id.* The National Priority List encompasses more than 1,300 sites, App. 22 (NPL Site Totals), so the cost of cleaning up all the orphan sites may be many times this amount.

II. THE ROLE OF FINANCIAL ASSURANCE.

A. CERCLA's Financial Assurance Requirement.

In 1980, Congress directed EPA to enact rules requiring that facilities involved with hazardous substances demonstrate financial responsibility sufficient to remedy any environmental damage caused by their operations. 42 U.S.C.

§ 9608(b). *See also* 52 Fed. Reg. 2923 (Jan. 23, 1987) (delegating to EPA). CERCLA sets out a three-step process for EPA to enact and implement financial responsibility regulations. First, EPA must publish a notice identifying classes of facilities for which financial responsibility requirements will first be developed by no later than 1983. 42 U.S.C. § 9608(b)(1). Second, EPA must promulgate requirements that classes of facilities establish and maintain evidence of financial responsibility "consistent with the degree and duration of risk associated with the production, treatment, transportation, storage, or disposal of hazardous substances" beginning not earlier than 1985. *Id.* In developing these rules, "[p]riority . . . shall be accorded to those classes of facilities . . . which [EPA] determines present the highest level of risk of injury." *Id.* Third, EPA must incrementally impose these requirements "as quickly as can reasonably be achieved but in no event more than 4 years after the date of promulgation." *Id.* § 9608(b)(3). To date, EPA has not promulgated any financial assurance requirements under CERCLA.

CERCLA is not the only statute containing financial assurance requirements. While the Resource Conservation and Recovery Act ("RCRA") also requires financial assurances, 42 U.S.C. §§ 6924(a)(6), 6924(t), the universe of facilities not covered by RCRA's financial assurance requirements is immense. *See* App. 757-58 (1987 GAO Report at 2-3) (more than 100,000 companies generate, handle, or dispose of hazardous substances, but only 4,000 are subject to RCRA financial

assurance requirements). Similarly, several federal agencies require financial assurances for certain mining activities on federal land, but mines located on non-federal land are not covered. *See, e.g.*, App. 112 (2012 GAO Report – Uranium Mining at 39); App. 160 (2012 GAO Report – Phosphate Mining at 15). These substantial gaps mean that most facilities are not required to carry insurance or provide any evidence of their ability to clean up hazardous contamination.

B. Financial Assurances Prevent Releases.

CERCLA's financial responsibility requirements not only ensure that responsible parties are able to pay for cleanup of hazardous substances, these requirements also play a significant role in preventing hazardous substance releases. As described by Congress:

> [A] major goal of the financial responsibility requirements is to enlist insurers to provide additional policing and incentives to monitor the behavior of their insureds. . . It is often policy terms and conditions, as well as inspection and rate-making, that form the basis of the insurer's ability to influence the insured to act carefully and responsibly.

App. 794 (Senate Report 99-11 at 47). EPA has similarly concluded that financial assurances play a critical preventative role by creating incentives for the proper handling of hazardous substances. *See* App. 436 (EPA National Priority Announcement at 1) (financial assurance requirements "protect public health and the environment by promoting the proper and safe handling of hazardous materials"); App. 388 (EPA Region 10 Strategy at 2) ("Financial assurance…plays

a significant role in reducing risks to human health and the environment because it provides a financial incentive for operators to improve environmental practices").

C. The Lack of Financial Assurance Requirements Contributes to Funding Shortfalls, Delayed and Incomplete Cleanups, and Injury to Human Health and the Environment.

EPA's failure to issue financial assurance rules is directly tied to funding shortfalls for cleanup. A 2005 GAO Report explained:

> The need for EPA to fully use its existing authorities to execute the 'polluter pays' principle underlying the Superfund and RCRA laws is even more compelling today than it was during the 1980s and 1990s when corporate taxes … provided about $1 billion a year for Superfund cleanups. Now, without revenue from Superfund taxes, the cleanup burden has increasingly shifted to the general public—and at a time when large federal deficits are likely to constrain EPA's ability to obtain such funding for these cleanups. In addition, over time, businesses have become more sophisticated in using the limited liability principle to protect their assets by separating them from their liabilities. The result is that businesses of all sizes can easily limit the amounts they may be required to pay for environmental cleanups under Superfund and RCRA. . . .
>
> These challenges can seriously hamper EPA's ability to achieve its primary mission of protecting human health and the environment because they present formidable obstacles to obtaining the funding needed for cleanups. … Thus, we believe it is imperative for EPA to increase its focus on financial management and to fully use its existing authorities to better ensure that those businesses that cause pollution also pay to have their contaminated sites cleaned up.

App. 605-06 (2005 GAO Report at 58-59). *See also* App. 431 (2006 GAO Testimony at 4) ("By its inaction on the Superfund mandate …, EPA has continued to expose the Superfund program, and ultimately the U.S. taxpayers, to potentially billions of dollars in cleanup costs . . . ."); App. 235-36 (2011 GAO Testimony at

4-5); App. 509 (2005 GAO Report – Hardrock Mining at 65); App. 751 (EPA Enforcement Alert) ("Casmalia is an example of how hazardous waste facilities' failure to adequately fulfill their financial assurance obligations can result in Superfund sites.").

Funding shortfalls reduce the effectiveness of Superfund cleanups, leaving the public exposed to higher levels of hazardous substances. EPA's Office of Inspector General found that in fiscal year 2003, a $174.9 million funding shortfall "prevented EPA from beginning construction at all sites or providing additional funds needed to address sites in a manner believed necessary by regional officials." App. 649 (2004 OIG Report at 1). The report identified 29 specific sites where cleanup work was delayed or scaled back in ways harmful to human health and the environment because of funding shortfalls. For example, "[t]he impact of reduced funds for the Bunker Hill site [in Northern Idaho and Eastern Washington] is associated with risk to human health, particularly for young children and pregnant women, from lead contamination in a residential area." App. 656 (2004 OIG Report at 8). *See also* App. 301 (2010 GAO Report at 18).

The delayed cleanup and prolonged health risks at the Bunker Hill site are not unique: indeed, it is now more common than not for cleanup to be delayed due to lack of funding, even at the sites that pose the highest risks to human health. *See* App. 294 (2010 GAO Report at 11) ("At over 60 percent of the 75 nonfederal

[National Priority List] sites with unacceptable human exposure, all or more than half of the work remains to complete the remedial construction."); App. 309 (*Id.* at 26) ("Since fiscal year 2000, most [EPA] regions have experienced delays because of insufficient funding . . . ."). These delays "increase the length of time it takes to clean up a site; the total cost of cleanup; and, in some cases, the length of time populations are exposed to contaminants." App. 310 (*Id.* at 27).

Huge funding shortfalls are not unusual. For example, in March 2008, W.R. Grace entered into the then-largest Superfund settlement in history, agreeing to pay $250 million to clean up asbestos contamination from its mine in Libby, Montana. App. 15 (EPA Libby Milestones). Asbestos contamination caused hundreds of deaths and thousands of illnesses in Libby. App. 66 (AP Libby Article); *see also* App. 370-72 (EPA Libby Action Memo). W.R. Grace declared bankruptcy in 2001, shortly after the deadly situation came to light. App. 575 (2005 GAO Report at 28). But even the record-setting settlement does not come close to covering the cost of cleanup: as of July 2012, the cleanup had already cost $447 million, and was not nearly complete. App. 66 (AP Libby Article); *see also* App. 383 (EPA Libby Determination). Similarly, despite recent record-setting settlements with Asarco, the primary responsible party for the Bunker Hill site, substantial public funds will be needed to cover the full cost of cleanup. *See* App. 17 (EPA Bunker Hill FAQ) ("While the Asarco bankruptcy settlement is very significant [$494

million], the funds received represent only about 20% of the overall site cleanup needs. EPA estimates that the cost of a final Bunker Hill remedy, including the Coeur d'Alene Basin and Bunker Hill Box, would be more than $2 billion.").

EPA and other government oversight agencies have consistently arrived at the same conclusion, in study after study: the high cost of cleanup and the dwindling resources of the Superfund program render it impossible to address all sites in a timely and adequate manner. *See* App. 316 (2010 GAO Report at 33) ("The limited funding, coupled with increasing costs of cleanup, has forced EPA to choose between cleaning up a greater number of sites in a less time and cost efficient manner or cleaning up fewer sites more efficiently."); App. 556 (2005 GAO Report at 9) ("The decrease in Superfund funding in recent years and this backlog of sites ready for additional funding may make the already lengthy NPL cleanup process even lengthier."); App. 642 (NACEPT Report at 64) ("Some of the sites in the backlog have been in the Superfund Program for many years…if not addressed, this backlog of sites will continue to pose threats to communities, and cleanup costs at these sites will increase, sometimes dramatically."); App. 652 (2004 OIG Report at 4) ("When funding is not sufficient, construction at National Priority List (NPL) sites cannot begin; cleanups are performed in less than an optimal manner; and/or activities are stretched over longer periods of time. As a result, total project costs may increase and actions needed to fully address the

human health and environmental risk posed by the contaminants are delayed."). With hundreds of National Priority List sites awaiting cleanup and tens of thousands of contaminated sites not even on the list for public remediation, the risk to health and the environment is substantial.

III. THE 2008 LAWSUIT AND EPA'S FEDERAL REGISTER NOTICES.

To remedy EPA's decades-long failure to issue financial assurances rules, in 2008 many of the Petitioners here filed a CERCLA citizen suit in federal district court. On cross-motions for summary judgment, the court held that EPA had a non-discretionary duty to take the first step in developing financial assurance rules – identification of the classes of facilities for which EPA would first develop rules – and ordered EPA to take this initial step by May 4, 2009. *Sierra Club v. Johnson*, No. C 08-01409, 2009 WL 482248 (Feb. 25, 2009). The court subsequently held that jurisdiction over a challenge to EPA's failure to issue the rules themselves lies in the D.C. Circuit. *Id.*, 2009 WL 2413094 (Aug. 5, 2009).

Pursuant to the district court's order, EPA issued notice in 2009 that it would first develop financial assurance requirements for the hardrock mining industry. *See* Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements, 74 Fed. Reg. 37,213 (July 28, 2009). Several months later, EPA issued notice that it would develop financial assurance requirements for three additional industries: chemical manufacturing,

petroleum and coal products manufacturing, and electric power generation, transmission, and distribution. *See* Identification of Additional Classes of Facilities for Development of Financial Responsibility Requirements Under CERCLA Section 108(b), 75 Fed. Reg. 816 (Jan. 6, 2010). In these notices, EPA described in detail the risks posed by these four industries and concluded that financial assurance rules for each of these industries is warranted.

A. EPA's Notice of Intent to Regulate Hardrock Mining Facilities.

In EPA's hardrock mining notice, its analysis was extensive and its conclusion unequivocal: it is "readily apparent that hardrock mining facilities present the type of risk that, in light of EPA's current assessment, justifies designating such facilities as those for which EPA will first develop financial responsibility requirements." 74 Fed. Reg. at 37,214.

EPA noted that the hardrock mining industry is responsible for polluting approximately 440,000 acres of land and contaminating as much as 10,000 miles of rivers and streams. *Id.* at 37,215. EPA described the volume of toxic chemicals released by hardrock mining facilities as "enormous": 1.15 billion pounds annually. *Id.* The risk posed by this substantial volume of waste has been borne out on many occasions: many hardrock mining sites have been listed on the National Priorities List – 90 listed and another 20 proposed as of 2009 – and the cleanup required for these sites is often substantial and complex. *Id.* at 37,216-17.

EPA next noted that "[t]he severity of consequences posed by hardrock mining facilities is evident in the enormous costs associated with past and projected future actions necessary to protect public health and the environment, after releases from hardrock mining facilities occur." *Id.* at 37,217. Specifically:

> EPA has estimated that the cost of remediating all hardrock mining facilities is between $20 and $54 billion. EPA's analysis showed that if the total Federal, State, and potentially responsible party outlays for remediation were to continue at existing levels . . ., no more than eight to 20 percent of all cleanup work could be completed within 30 years. In another analysis based on a survey of 154 large sites, EPA's OIG projected that the potential total hardrock mining remediation costs totaled $7 to $24 billion. OIG calculated that this amount is over 12 times EPA's total annual Superfund budget of about $1.2 billion.

Id. EPA also described numerous examples of hardrock mining facilities declaring bankruptcy and leaving enormous cleanup costs to be borne by EPA, concluding that "the hardrock mining industry has experienced a pattern of failed operations, which often require significant environmental responses that cannot be financed by industry." *Id.* at 37,218.

B. EPA's Notice of Intent to Regulate Three Additional Industries.

1. Chemical Manufacturing

Like hardrock mines, chemical manufacturing facilities pose significant risks. There were 13,000 facilities operating in the U.S. as of 2007, and the industry releases approximately 220 million pounds of hazardous substances and nearly 20 million tons of hazardous waste annually. 75 Fed. Reg. 816, 824.

Beyond the sheer volume of substances released, there are over 180 National

Priority List sites associated with chemical manufacturing, including multiple examples of sites that pose "high risk to the environment and human health," such as sites across the street from residential areas and sites in close proximity to the drinking water supply for hundreds of thousands of people. *Id.* Remediation of these sites has been historically costly and complex – for the chemical manufacturing sites on the National Priority List, EPA has spent approximately $2.7 billion through 2009. *Id.* at 825. Simply put, "EPA's past experience with some [National Priority List] 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." *Id.*

Additionally, "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." *Id.* Parent-subsidiary relationships that allow parent corporations to shield assets from liability for cleanups, frequent changes in site ownership, and bankruptcies in the industry all make it difficult to assign liability for cleanup costs in the chemical manufacturing industry. *Id.*

2. Petroleum and Coal Products Manufacturing

The petroleum and coal products manufacturing industry primarily consists of petroleum refining facilities. These "tend to be very large, high-volume

facilities," and releases from these large sites have resulted in exposure to hazardous substances "on a regional scale." *Id.* at 826. Moreover, refineries tend to be operated for decades, so "there is a long timeframe for potential releases and exposure of hazardous substances to occur." *Id.* "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, and aquatic vegetation." *Id.*

The petroleum and coal products manufacturing industry generated 4.2 million tons of hazardous waste in 2007 – second only to the chemical manufacturing industry – and releases 46 million pounds of hazardous substances annually. *Id.* These releases have in some cases led to surface and ground water contamination, and 22 of the sites on the National Priority List as of 2009 are attributed to petroleum refinery operations. *Id.* at 827. The contamination at some of these sites is extensive and has led to substantial risk to human health and the environment – for example, EPA noted that uncontrolled dumping at the Tennessee Products site contaminated the groundwater and surface water downstream of the facility, which residents from nearby housing projects used for swimming, playing, and fishing. *Id.* In addition to sites listed on the National Priority List, EPA described many additional examples of releases of hazardous substances from refineries, including to groundwater – in fact, in some instances

the level of groundwater contamination from refineries is so high that refineries "are actually pumping out the hydrocarbons from the groundwater table, and recovering them back in the refinery, which demonstrates the significant extent to which these materials have been released into the environment." *Id.*

EPA noted the large costs associated with "what are often extensive and long-term remediation efforts" at refinery sites—for example, as of 2009, EPA had spent $250 million on remediation of refinery sites on the National Priorities List. *Id.* EPA concluded that its "past 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." *Id.* at 827-28.

3. Electric Power Generation, Transmission, and Distribution

In deciding that financial assurance rules for this industry were warranted, EPA focused on the risks posed by coal combustion residuals, which are the toxic ash and other residue remaining after coal is burned at electric generation units. *Id.* at 828-29. Like the other industries identified for financial assurance rules, the electric power industry operates on a "large scale"—there are 1,270 fossil fuel electric power generating facilities operating in the U.S.—and so the potential for release and exposure to hazardous substances is high. *Id.* at 829. The industry reports "high levels" of on-site releases of hazardous substances – 161 million

pounds annually – and these substances are "highly toxic." *Id.* EPA noted that coal combustion residuals "are a very large industrial waste stream" that "dwarf[s] the volume of hazardous waste generated in the U.S." *Id.* In 2007 alone, for example, 131 million tons of coal combustion residuals were generated in the U.S., *id.*, in contrast to the 32 million tons of hazardous waste generated by all other industry sectors combined, *id.* at 820-21 & Table 2.

EPA next noted that there are numerous documented instances of substantial and costly groundwater and surface water contamination from coal combustion residuals, including contamination of public drinking water supplies. *Id.* at 822, 829-30. Remediation costs for this industry can be enormous: for example, EPA stated that the costs to clean up the "catastrophic release" of coal combustion residuals from a single site – the Tennessee Valley Authority's Kingston Plant -- "has been estimated to range from $933 million to $1.2 billion," *id.* at 830, an amount that is as large as EPA's entire annual Superfund budget, *supra* at 12. Taking all this information into consideration, EPA determined that financial assurance rules for the electric power industry are warranted. *Id.*

IV. EPA'S CONTINUING FAILURE TO ISSUE RULES.

Since 2009, EPA has made scant progress toward issuing the actual rules it concluded were vitally needed. Year after year, EPA has continually postponed the completion date for these long-overdue rules. Shortly after it issued its notice

of intent for the hardrock mining industry in 2009, EPA stated in its Fall 2010 Regulatory Agenda that it would issue a proposed financial assurance rule for hardrock mining in the spring of 2011. App. 269-70 (Fall 2010 Agenda at 71-72). But when the spring of 2011 arrived, EPA advised that it would instead issue the proposed rule in early 2012. App. 254 (Spring 2011 Agenda at 73). A few months later, EPA demoted the rulemaking to a "long term action" and delayed the proposed rule by another year, until 2013. App. 228 (Fall 2011 Agenda at 80). A year later, EPA pushed the date of the proposed rule back another year. App. 65 (Fall 2012 Agenda at 66); *see also* App. 50-51 (Spring 2013 Agenda at 47-48). And after yet another year had passed, in fall of 2013, EPA pushed the date of the proposed rule back over two years, to summer of 2016. App. 35 (Fall 2013 Agenda at 59); *see also* App. 13 (Spring 2014 Agenda at 60).

EPA's progress on financial assurance rules for the other three industries has been even less promising. Shortly after EPA issued its notice of intent in early 2010, EPA advised that it would issue a proposed rule in 2011. App. 278 (Spring 2010 Agenda at 138). A year later, EPA listed the rulemaking as a "long term action" and gave no date for its estimated completion. App. 255 (Spring 2011 Agenda at 88); App. 226-27 (Fall 2011 Agenda at 78-79). And since 2011, EPA has not even mentioned the rulemaking in its regulatory agenda.

SUMMARY OF ARGUMENT

EPA has a clear statutory duty under CERCLA to issue financial assurance rules. Although issuance of these rules is not subject to a date-certain deadline, under the APA, EPA must act within a reasonable time. Over thirty years have passed since Congress first directed EPA to issue such rules, and nearly five years have passed since EPA itself concluded such rules were necessary for at least four industries. While EPA continues to delay, scarce resources delay cleanups and prolong public exposure to known toxins. EPA's delay is unreasonable and this Court should order EPA to finalize financial assurance rules by January 1, 2016.

STANDING

The "irreducible constitutional minimum" of standing contains three elements: (i) injury in fact that is (ii) fairly traceable to the defendant's conduct and (iii) likely to be redressed by a favorable decision. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-561 (1992). "However, a litigant to whom Congress has accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy." *Massachusetts v. EPA*, 549 U.S. 497, 517-18 (2007) (internal citations and quotation marks omitted). A federal district court has already held that Petitioners have representational standing to challenge EPA's failure to issue financial assurance rules. *Sierra Club*, 2009 WL 482248 at *3-*7.

Petitioners' members are and likely will be injured by releases of hazardous substances from facilities in the four industry classes at issue. For example, Sierra Club member Mark Romines lives a quarter mile from the Louisville Gas and Electric coal plant in Kentucky and is regularly exposed to the toxic coal ash dust from the plant. *See* Romines Decl. ¶¶ 4-6.[2] Other members' health, economic, recreational, aesthetic, and other interests are similarly affected. *See, e.g.*, Hervey Decl. ¶¶ 6-9; Weber Decl. ¶¶ 12-13; Robison Decl. ¶¶ 16, 21, 24-25; Hayes Decl. ¶¶15-16; Cabrales Decl. ¶¶ 10-11, 13-14; Dixon Decl. ¶¶ 6-7; Rojo Decl. ¶¶ 7, 10-14; Land Decl. ¶¶ 4, 7; Kark Decl. ¶¶ 8-9.

These injuries are fairly traceable to EPA's failure to issue financial assurance regulations. As Congress recognized in enacting 42 U.S.C. § 9608(b), requiring financial assurances provides facility owners and operators—and their insurers—with a powerful incentive to minimize releases. App. 794 (Senate Report 99-11 at 47). "And while Congress cannot create standing on its own, it can provide legislative assessments which courts can credit in making standing determinations." *NWF v. Hodel*, 839 F.2d 694, 708 (D.C. Cir. 1988). EPA has similarly recognized the preventative role of financial assurances, *supra* at 5-6, as has at least one court, *see Safety-Kleen, Inc., (Pinewood) v. Wyche*, 274 F.3d 846, 866 (4th Cir. 2001) ("The incentive for safety is obvious: the availability and cost

[2] Standing declarations are provided in a separate addendum. D.C. Cir. R. 28(a)(7).

of a bond will be tied directly to the structural integrity of a facility and the soundness of its day-to-day operations…To put it more bluntly, sloppy 'design and operating procedures ... are more likely to be avoided' with the financial assurance requirements and the resulting incentive to reduce bond costs.").

Additionally, Petitioners' members are and likely will be injured by delayed and/or incomplete cleanup at sites where responsible parties have declared bankruptcy. *See, e.g.*, Hayes Decl. ¶¶ 9-15, 25-30; Robison Decl. ¶¶12-20. It is well-established that EPA's failure to issue financial assurance rules contributes to funding shortfalls and that funding shortfalls lead to delayed or incomplete cleanup. *Supra* at 6-10. *See Autolog Corp. v. Regan,* 731 F.2d 25, 31 (D.C. Cir. 1985) ("We are concerned ... not with the length of the chain of causation, but… [with] the plausibility of the links that comprise the chain.")(internal citations and quotation marks omitted). *See also Hodel*, 839 F.2d at 710 & n.13 (finding standing for plaintiffs' claims that EPA regulations provide "insufficient bond coverage for damage to water supplies caused by subsidence").

Finally, Petitioners' members' injuries would be redressed by an order requiring EPA to finalize financial assurance rules. Congress directed EPA to issue financial assurance rules to prevent injury to health and the environment from exposure to hazardous substance pollution, and there is "a 'substantial likelihood that the judicial relief requested' will prompt EPA to take steps to reduce that risk."

Massachusetts v. EPA, 549 U.S. at 521 (internal citation omitted).

ARGUMENT

A writ of mandamus "is an extraordinary remedy, reserved only for the most transparent violations of a clear duty to act." *In re Bluewater Network,* 234 F.3d 1305, 1315 (D.C. Cir. 2000). "In the case of agency inaction, we not only must satisfy ourselves that there indeed exists such a duty, but that the agency has 'unreasonably delayed' the contemplated action." *Id.* (quoting 5 U.S.C. § 706(1)). This Court analyzes unreasonable delay claims under the six factors established in *TRAC*, 750 F.2d at 79. Here, EPA's duty to issue financial assurance rules is clear, and consideration of the *TRAC* factors demonstrates that EPA's thirty-year delay is so egregious as to warrant mandamus relief.

I. EPA HAS A CLEAR DUTY TO ACT.

When Congress enacted CERCLA in 1980, it spoke in clear terms: EPA "shall promulgate requirements . . . that classes of facilities establish and maintain evidence of financial responsibility." 42 U.S.C. § 9608(b) (emphasis added). The statute "indisputably commands" EPA to establish financial responsibility requirements, and it is undisputed that EPA has not done so. *See In re Bluewater Network,* 234 F.3d at 1315; *Cutler v. Hayes*, 818 F.2d 879, 895 (D.C. Cir. 1987) ("the agency lacks authority to simply do nothing to effectuate the purpose of the Act"). CERCLA's plain language allows for only one interpretation: EPA has a

clear statutory duty to issue financial assurance regulations.

II. RELIEF IS JUSTIFIED UNDER THE *TRAC* FACTORS.

This Court adopted a six-factor test for judging whether to compel agency action on the basis of unreasonable delay in the *TRAC* decision. 750 F.2d at 80 (listing factors). Under these six factors, EPA's thirty-year delay is unreasonable.

A. EPA's Thirty-Year Delay is Excessive.

"The first and most important factor is that 'the time agencies take to make decisions must be governed by a rule of reason.'" *In re Core Commc'ns, Inc.*, 531 F.3d 849, 855 (D.C. Cir. 2008) (quoting *TRAC*, 750 F.2d at 80). Although there is no per se rule as to the amount of time that constitutes an undue delay, "a reasonable time for agency action is typically counted in weeks or months, not years." *In re Am. Rivers & Idaho Rivers United*, 372 F.3d 413, 419 (D.C. Cir. 2004) (finding FERC's delay of six years in responding to a petition unreasonable). *See also In re Core Commc'ns*, 531 F.3d at 861 (finding FCC's six-year delay in issuing legal authority for interim rules unreasonable); *In re Int'l Chem. Workers Union*, 958 F.2d 1144, 1150 (D.C. Cir. 1992) (finding OSHA's six-year delay in issuing cadmium rules unreasonable); *Nader v. F.C.C.*, 520 F.2d 182, 206 (D.C. Cir. 1975) ("Although the issues are complicated, we can find no justification for a delay of ten years."); *Muwekma Tribe v. Babbitt*, 133 F. Supp. 2d 30, 37 (D.D.C. 2000) (finding the BIA's four-year delay unreasonable).

Congress directed EPA to issue financial assurance rules beginning in 1985. *See* 42 U.S.C. § 9608(b). There is no dispute that EPA has not yet promulgated any financial assurances rules, and that nearly thirty years have passed since the 1985 date specified by Congress. Moreover, nearly five years have passed since EPA itself concluded that financial assurance rules were needed for at least four industries. EPA's delay goes far beyond the rule of reason.

B. EPA's Delay is Unreasonable in Light of CERCLA's Mandate.

TRAC provides that "where Congress has provided a timetable or other indication of the speed with which it expects the agency to proceed in the enabling statute, that statutory scheme may supply content for this rule of reason." 750 F.2d at 80; *see also Sierra Club v. Thomas*, 828 F.2d 783, 797 (D.C. Cir. 1987) (the Court should consider "whether the statutory scheme implicitly contemplates timely final action…"). The court must also consider whether an agency's delay is undermining the goals of the statute. *See Cutler*, 818 F.2d at 897-98.

Here, although the statute does not provide a fixed deadline for EPA to finalize financial assurance regulations, the statute does implicitly contemplate timely final action. Congress directed EPA to take the first step in establishing financial assurance rules – publication of notice of the industries it would regulate first – no later than 1983. 42 U.S.C. § 9608(b). Twenty-six years and one citizen suit later, EPA has finally taken that initial step. Congress directed that EPA take

the second step – issuance of the rules themselves – beginning in 1985, and directed EPA to give "[p]riority in the development of such requirements" to the classes of facilities that "present the highest level of risk of injury." *Id.* And finally, Congress directed EPA to phase in financial responsibility requirements—but also to impose the final requirements "as quickly as can reasonably be achieved and in no event more than 4 years after the date of promulgation." *Id.*

This three-step timeline strikes a balance between the need to provide industry with notice and a phase-in of final requirements, on the one hand, and the need to quickly finalize and implement financial assurance rules, on the other hand. Instead, three decades later, EPA has yet to issue rules for any industry. EPA has impermissibly replaced Congress' timeline with thirty years of inaction.

Moreover, EPA's delay in promulgating financial assurance regulations is frustrating the statutory goals of CERCLA. *See Cutler*, 818 F.2d at 897-98. EPA's thirty-year delay thwarts the goal of ensuring that the cost of cleanup is borne by responsible parties, *Burlington N.*, 556 U.S. at 602—in the absence of financial assurance requirements, responsible parties are frequently unable to shoulder cleanup costs. EPA's failure to issue financial assurance rules also thwarts the goal of ensuring timely and thorough cleanup, *Burlington N.*, 556 U.S. at 602—EPA has repeatedly noted that it lacks funds to clean up all sites in a timely and thorough manner, and that these delays in cleanup lead to additional

public exposure to hazardous substances. *See supra* at 6-10. EPA's delay also thwarts the preventative purpose of financial assurance rules, *supra* at 5-6—many facilities are not required to carry insurance or other assurances, reducing the financial incentive for best practices. *See supra* at 4-5.

Ultimately, "[a]dministrative agencies cannot decide which duties to perform and which duties to ignore, rather they must perform the duties which Congress intends them to perform." *Orion Reserves Ltd. P'ship v. Kempthorne*, 516 F. Supp. 2d 8, 12 (D.D.C. 2007). EPA's protracted inaction upends the balanced timeline created by Congress and thwarts the goals of the statute.

C. EPA's Delay Harms Human Health and Welfare.

EPA's delay is even less tolerable because the Agency's failure to promulgate financial assurance regulations is negatively impacting human health and welfare. *See TRAC*, 750 F.2d at 80; *Cutler*, 818 F.2d at 898 ("The deference traditionally accorded an agency to develop its own schedule is sharply reduced when injury likely will result from avoidable delay.").

EPA's delay in promulgating financial assurance requirements jeopardizes human health and welfare by contributing to a shortfall in resources for remediation of hazardous waste sites. *See supra* at 6-10. Moreover, releases of hazardous substances from the four industries identified by EPA pose enormous threats to human health: EPA itself gave many examples of the magnitude of these

releases and their impacts on human health in its 2009 and 2010 Federal Register notices of its intent to issue financial assurance rules. *See supra* at 11-16.

With human health and welfare at stake, EPA's delay of thirty years is unacceptable. *See Pub. Citizen Health Research Grp. v. Brock*, 823 F.2d 626, 628 (D.C. Cir. 1987), ("With lives hanging in the balance, six years is a very long time."); *Pub. Citizen Health Research Grp. v. Auchter*, 702 F.2d 1150, 1157 (D.C. Cir. 1983) ("Three years from announced intent to regulate to final rule is simply too long given the significant risk of grave danger EtO poses to the lives of current workers and the lives and well-being of their offspring."). This factor may not alone be dispositive where much of the agency's docket involves issues of human health and welfare. *See Sierra Club v. Thomas*, 828 F.2d at 798. But where, as in this case, each of the *TRAC* factors demonstrate that the agency's delay is unreasonable, mandamus relief is warranted.

D. Competing Priorities Do Not Justify Thirty Years of Inaction.

Federal agencies inevitably face the challenge of limited resources with which to address competing priorities, many of which are technically and administratively complex. Courts must bear this in mind while weighing the reasonableness of agency delay. *See TRAC*, 750 F.2d at 80. But "[h]owever many priorities the agency may have, and however modest its personnel and budgetary resources may be, there is a limit to how long it may use these justifications to

excuse inaction in the face of the congressional command to act…" *In re United Mine Workers of Am. Int'l Union*, 190 F.3d 545, 554 (D.C. Cir. 1999); *see also Cobell v. Norton*, 240 F.3d 1081, 1097 (D.C. Cir. 2001).

For the last three decades, EPA has claimed that competing priorities and scarce resources have prevented it from making any progress on the Congressional mandate to enact financial assurance requirements. *See, e.g.*, App. 552 (2005 GAO Report at 5) ("EPA has cited, among other things, competing priorities and lack of funds as reasons for having made no progress in this area for nearly 25 years"). EPA's complaint of scarce resources falls particularly flat here, as during EPA's decades-long failure to require financial assurances, hundreds upon hundreds of new sites have been added to the National Priorities List. Remediation at many of these sites must be funded partly or entirely by the Superfund, often at enormous cost. *See supra* at 3. While conducting a complex rulemaking undeniably requires a significant commitment of resources from the agency, this pales in comparison to the cost of remediating the many "orphan" sites that have been added to the National Priorities List during EPA's three decades of inaction.

EPA is entitled to some deference in its efforts to prioritize in the face of limited resources, but this justification for delay is far less persuasive in light of the thirty years that have passed since Congress directed EPA to promulgate these rules. *See Cutler*, 818 F.2d at 898 ("The court should weigh any plea of . . .

practical difficulty in carrying out a legislative mandate, or need to prioritize in the face of limited resources. Of course, these justifications become less persuasive as delay progresses, and must always be balanced against the potential for harm.").

In response to a court order, EPA has already identified the four industries that pose the greatest risks; in the absence of further judicial mandate, EPA has let nearly five years elapse with little further progress. Petitioners are simply asking that EPA finalize the rules for those industries within a reasonable amount of time.

E. The Harm Caused by EPA's Delay is Serious and Wide-Ranging.

The fifth *TRAC* factor—the nature and extent of the harm caused by delay—weighs strongly in favor of issuing a writ of mandamus in this case. *TRAC*, 750 F.2d at 80. EPA itself has chronicled in detail the harm resulting from sites contaminated by hazardous substances and the additional harm when cleanup is delayed due to lack of funding. *See supra* at 6-10. The nature and extent of the harm to human health and the environment from the four industries EPA identified is serious – EPA's federal register notices describe in detail the harm resulting from releases, and EPA has already concluded that these four industries pose large risks. *Supra* at 11-16. Indeed, it is due to the nature and extent of the risks posed by these four industries that EPA identified them for priority development of financial assurance rules under CERCLA. *See id.* EPA's own conclusions demonstrate that the nature and extent of the harm caused by EPA's delay weigh

strongly in favor of mandamus relief.

F. The Court Need Not Find Any Impropriety to Grant Relief.

It is well-established that EPA need not be acting in bad faith for the Court to grant this petition. *TRAC*, 750 F.2d at 80. While a good faith effort by the agency to address the delay could weigh against mandamus relief, *see Brock*, 823 F.2d at 629, here the promulgation of these financial assurance regulations has been delayed time and time again. *See supra* at 16-17. The agency's pattern of missed deadlines undermines any new promise made in this litigation that the rules will be forthcoming. *See In re Int'l Chem. Workers Union*, 958 F.2d at 1150 (the Court should "have grave cause for concern that if [it] do[es] not insist on a deadline now, some new impediment will be pleaded five months hence"); *id.* ("[w]hether the delays at every stage are the result of the agency's persistent excess of optimism, or attributable to bureaucratic inefficiencies, there must be an end to the process sometime soon.") (internal citations and quotation marks omitted); *Brock*, 823 F.2d at 627; *In re United Mine Workers*, 190 F.3d at 554-55. For thirty years, EPA has offered the same reasons for its failure to complete financial assurance rules as it has more recently given for repeatedly delaying rules for the four industries it has identified as posing the greatest risks. If history is any indication, absent an order from this Court, EPA will never complete the rules that Congress directed EPA to issue beginning in 1985. Mandamus relief is warranted.

CONCLUSION

For the foregoing reasons, Petitioners request that this court order EPA to finalize financial assurance rules for the hardrock mining, chemical manufacturing, petroleum and coal products manufacturing, and electric power generation, transmission, and distribution industries by January 1, 2016.

Respectfully submitted this 6th day of August, 2014.

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CERTIFICATE OF COMPLIANCE with Rule 32(a)

Certificate of Compliance with Type-Volume Limitation,
Typeface Requirements and Type "Style Requirements

1. This Petition for Writ of Mandamus complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because:

   ☑ this Petition for Writ of Mandamus complies with the page limit of thirty (30) pages.

   ☐ this Petition for Writ of Mandamus uses a monospaced typeface.

2. This Petition for Writ of Mandamus complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(b) because:

   ☑ this Petition for Writ of Mandamus has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in 14-point font size and Times New Roman type style, or

   ☐ this Petition for Writ of Mandamus has been prepared in a monospaced typeface using [*state name and version of word processing program*] with [*state number of characters per inch and name of type style*].

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), Petitioners Idaho Conservation League , Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment, (collectively, "Petitioners") state:

A. Parties and Amici

The following parties are before this Court:

Petitioners: Petitioners Idaho Conservation League , Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment

Respondent: U.S. Environmental Protection Agency

B. Ruling Under Review

This is an original action challenging an agency's unreasonable delay; no district court or administrative ruling is under review. Petitioners Idaho Conservation League, Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment challenge EPA's unreasonable delay in issuing financial assurance rules as required by statute, 42 U.S.C. § 9608(b). Petitioners seek a Writ of Mandamus compelling EPA to finalize such rules by January 1, 2016.

C. Related Cases

Petitioners are not aware of any related case(s).

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF AMIGOS BRAVOS

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Amigos Bravos has no parent companies, and no publicly held company has a ten percent or greater ownership interest in Amigos Bravos.

Amigos Bravos, a corporation organized and existing under the laws of the state of New Mexico, is a national non-profit organization dedicated to preserving the ecological and cultural integrity of New Mexico's water and communities.

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF COMMUNITIES FOR A BETTER ENVIRONMENT

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Communities for a Better Environment has no parent companies, and no publicly held company has a ten percent or greater ownership interest in Communities for a Better Environment.

Communities for a Better Environment, a corporation organized and existing under the laws of the state of California, is a national non-profit organization dedicated to preventing and reducing pollution and building green, healthy and sustainable communities and environments.

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF EARTHWORKS

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Earthworks has no parent companies, and there are no publicly held companies that have a ten percent or greater ownership interest in Earthworks.

Earthworks, a corporation organized and existing under the laws of the District of Columbia, is a national non-profit organization dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF GREAT BASIN RESOURCE WATCH

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Great Basin Resource Watch has no parent companies, and no publicly held company has a ten percent or greater ownership interest in Great Basin Resource Watch.

Great Basin Resource Watch, a corporation organized and existing under the laws of the state of Nevada, is a national non-profit organization dedicated to protecting the health and well-being of the land, air, water, wildlife and human communities of the Great Basin from the adverse effects of resource extraction and use.

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF IDAHO CONSERVATION LEAGUE

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Idaho Conservation League has no parent companies, and no publicly held company has a ten percent or greater ownership interest in Idaho Conservation League.

Idaho Conservation League, a corporation organized and existing under the laws of the state of Idaho, is a national non-profit organization dedicated to ensuring adequate protections for clean water and air, healthy families and Idaho's unique way of life.

Respectfully submitted this 6th day of August, 2014.

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT OF SIERRA CLUB

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Sierra Club has no parent companies, and no publicly held company has a ten percent or greater ownership interest in the Sierra Club.

Sierra Club, a corporation organized and existing under the laws of the state of California, is a national non-profit organization dedicated to the protection of our communities and the planet.

Respectfully submitted this 6th day of August, 2014.

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CERTIFICATE OF SERVICE

I hereby certify that I have served true and correct copies of the Petition for Writ of Mandamus, Appendix of Exhibits in Support of Petition for Writ of Mandamus, Volumes I and II, and Addendum of Standing Declarations in Support of Petition for Writ of Mandamus by sending a copy via First Class Mail and/or dispatched the documents via a third-party commercial carrier for delivery to each of the following parties on the 8th day of August, 2014:

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Eudora Powell
Litigation Assistant

ADDENDUM OF PERTINENT STATUTES AND REGULATIONS

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Pub. L. 105–83, title I, Nov. 14, 1997, 111 Stat. 1544.
Pub. L. 104–208, div. A, title I, §101(d) [title I], Sept. 30, 1996, 110 Stat. 3009–181, 3009–182.
Pub. L. 104–134, title I, §101(c) [title I], Apr. 26, 1996, 110 Stat. 1321–156, 1321–157; renumbered title I, Pub. L. 104–140, §1(a), May 2, 1996, 110 Stat. 1327.
Pub. L. 103–332, title I, Sept. 30, 1994, 108 Stat. 2500.

RECOVERY OF COSTS

Pub. L. 104–303, title II, §209, Oct. 12, 1996, 110 Stat. 3681, provided that: "Amounts recovered under section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607) for any response action taken by the Secretary in support of the civil works program of the Department of the Army and any other amounts recovered by the Secretary from a contractor, insurer, surety, or other person to reimburse the Department of the Army for any expenditure for environmental response activities in support of the Army civil works program shall be credited to the appropriate trust fund account from which the cost of such response action has been paid or will be charged."

COORDINATION OF TITLES I TO IV OF PUB. L. 99–499

Any provision of titles I to IV of Pub. L. 99–499, imposing any tax, premium, or fee; establishing any trust fund; or authorizing expenditures from any trust fund, to have no force or effect, see section 531 of Pub. L. 99–499, set out as a note under section 1 of Title 26, Internal Revenue Code.

§ 9608. Financial responsibility

(a) Establishment and maintenance by owner or operator of vessel; amount; failure to obtain certification of compliance

(1) The owner or operator of each vessel (except a nonself-propelled barge that does not carry hazardous substances as cargo) over three hundred gross tons that uses any port or place in the United States or the navigable waters or any offshore facility, shall establish and maintain, in accordance with regulations promulgated by the President, evidence of financial responsibility of $300 per gross ton (or for a vessel carrying hazardous substances as cargo, or $5,000,000, whichever is greater) to cover the liability prescribed under paragraph (1) of section 9607(a) of this title. Financial responsibility may be established by any one, or any combination, of the following: insurance, guarantee, surety bond, or qualification as a self-insurer. Any bond filed shall be issued by a bonding company authorized to do business in the United States. In cases where an owner or operator owns, operates, or charters more than one vessel subject to this subsection, evidence of financial responsibility need be established only to meet the maximum liability applicable to the largest of such vessels.

(2) The Secretary of the Treasury shall withhold or revoke the clearance required by section 60105 of title 46 of any vessel subject to this subsection that does not have certification furnished by the President that the financial responsibility provisions of paragraph (1) of this subsection have been complied with.

(3) The Secretary of Transportation, in accordance with regulations issued by him, shall (A) deny entry to any port or place in the United States or navigable waters to, and (B) detain at the port or place in the United States from which it is about to depart for any other port or place in the United States, any vessel subject to this subsection that, upon request, does not produce certification furnished by the President that the financial responsibility provisions of paragraph (1) of this subsection have been complied with.

(4) In addition to the financial responsibility provisions of paragraph (1) of this subsection, the President shall require additional evidence of financial responsibility for incineration vessels in such amounts, and to cover such liabilities recognized by law, as the President deems appropriate, taking into account the potential risks posed by incineration and transport for incineration, and any other factors deemed relevant.

(b) Establishment and maintenance by owner or operator of production, etc., facilities; amount; adjustment; consolidated form of responsibility; coverage of motor carriers

(1) Beginning not earlier than five years after December 11, 1980, the President shall promulgate requirements (for facilities in addition to those under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.] and other Federal law) that classes of facilities 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. Not later than three years after December 11, 1980, the President shall identify those classes for which requirements will be first developed and publish notice of such identification in the Federal Register. Priority in the development of such requirements shall be accorded to those classes of facilities, owners, and operators which the President determines present the highest level of risk of injury.

(2) The 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 based on the payment experience of the Fund, commercial insurers, courts settlements and judgments, and voluntary claims satisfaction. To the maximum extent practicable, the President shall cooperate with and seek the advice of the commercial insurance industry in developing financial responsibility requirements. Financial responsibility may be established by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, or qualification as a self-insurer. In promulgating requirements under this section, the President is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary, or which are unacceptable, in establishing such evidence of financial responsibility in order to effectuate the purposes of this chapter.

(3) Regulations promulgated under this subsection shall incrementally impose financial responsibility requirements as quickly as can reasonably be achieved but in no event more than 4 years after the date of promulgation. Where possible, the level of financial responsibility which the President believes appropriate as a final requirement shall be achieved through incremental, annual increases in the requirements.

of the owner or operator, but such guarantor may not invoke any other defense that such guarantor might have been entitled to invoke in a proceeding brought by the owner or operator against him."

Subsec. (d). Pub. L. 99-499, §108(c), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: "Any guarantor acting in good faith against which claims under this chapter are asserted as a guarantor shall be liable under section 9607 of this title or section 9612(c) of this title only up to the monetary limits of the policy of insurance or indemnity contract such guarantor has undertaken or of the guaranty of other evidence of financial responsibility furnished under this section, and only to the extent that liability is not excluded by restrictive endorsement: *Provided*, That this subsection shall not alter the liability of any person under section 9607 of this title."

§ 9609. Civil penalties and awards

(a) Class I administrative penalty

(1) Violations

A civil penalty of not more than $25,000 per violation may be assessed by the President in the case of any of the following—

(A) A violation of the requirements of section 9603(a) or (b) of this title (relating to notice).

(B) A violation of the requirements of section 9603(d)(2) of this title (relating to destruction of records, etc.).

(C) A violation of the requirements of section 9608 of this title (relating to financial responsibility, etc.), the regulations issued under section 9608 of this title, or with any denial or detention order under section 9608 of this title.

(D) A violation of an order under section 9622(d)(3) of this title (relating to settlement agreements for action under section 9604(b) of this title).

(E) Any failure or refusal referred to in section 9622(*l*) of this title (relating to violations of administrative orders, consent decrees, or agreements under section 9620 of this title).

(2) Notice and hearings

No civil penalty may be assessed under this subsection unless the person accused of the violation is given notice and opportunity for a hearing with respect to the violation.

(3) Determining amount

In determining the amount of any penalty assessed pursuant to this subsection, the President shall take into account the nature, circumstances, extent and gravity of the violation or violations and, with respect to the violator, ability to pay, any prior history of such violations, the degree of culpability, economic benefit or savings (if any) resulting from the violation, and such other matters as justice may require.

(4) Review

Any person against whom a civil penalty is assessed under this subsection may obtain review thereof in the appropriate district court of the United States by filing a notice of appeal in such court within 30 days from the date of such order and by simultaneously sending a copy of such notice by certified mail to the President. The President shall promptly file in such court a certified copy of the record upon which such violation was found or such penalty imposed. If any person fails to pay an assessment of a civil penalty after it has become a final and unappealable order or after the appropriate court has entered final judgment in favor of the United States, the President may request the Attorney General of the United States to institute a civil action in an appropriate district court of the United States to collect the penalty, and such court shall have jurisdiction to hear and decide any such action. In hearing such action, the court shall have authority to review the violation and the assessment of the civil penalty on the record.

(5) Subpoenas

The President may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, or documents in connection with hearings under this subsection. In case of contumacy or refusal to obey a subpoena issued pursuant to this paragraph and served upon any person, the district court of the United States for any district in which such person is found, resides, or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the administrative law judge or to appear and produce documents before the administrative law judge, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Class II administrative penalty

A civil penalty of not more than $25,000 per day for each day during which the violation continues may be assessed by the President in the case of any of the following—

(1) A violation of the notice requirements of section 9603(a) or (b) of this title.

(2) A violation of section 9603(d)(2) of this title (relating to destruction of records, etc.).

(3) A violation of the requirements of section 9608 of this title (relating to financial responsibility, etc.), the regulations issued under section 9608 of this title, or with any denial or detention order under section 9608 of this title.

(4) A violation of an order under section 9622(d)(3) of this title (relating to settlement agreements for action under section 9604(b) of this title).

(5) Any failure or refusal referred to in section 9622(*l*) of this title (relating to violations of administrative orders, consent decrees, or agreements under section 9620 of this title).

In the case of a second or subsequent violation the amount of such penalty may be not more than $75,000 for each day during which the violation continues. Any civil penalty under this subsection shall be assessed and collected in the same manner, and subject to the same provisions, as in the case of civil penalties assessed and collected after notice and opportunity for hearing on the record in accordance with section 554 of title 5. In any proceeding for the assessment of a civil penalty under this subsection the President may issue subpoenas for the attendance and testimony of witnesses and the produc-

TABLE 1—CROP GROUP 20: OILSEED GROUP—Continued

Commodities	Related crop subgroups
Sweet rocket, *Hesperis matronalis* L.	20A
Tallowwood, *Ximenia americana* L.	20B
Tea oil plant, *Camellia oleifera* C. Abel	20B
Vernonia, *Vernonia galamensis* (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
Crop Subgroup 20A. 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.
Crop Subgroup 20B. 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.
Crop Subgroup 20C. Cottonseed Subgroup. Cottonseed.	Cottonseed, cultivars, varieties, and/or hybrids of these.

* * * * *

[FR Doc. E10–31397 Filed 01–05–10; 8:45 am]

BILLING CODE 6560–50–S

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:* Follow the on-line instructions for submitting comments.

- *E-mail:* Comments may be sent by electronic mail (e-mail) to *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*, 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* or e-mail. The *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*, 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* 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* 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;* 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.*

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.

B. Table of Contents

IV. Conclusion

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: [1]

* * * 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 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.[2] 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 [3]), 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,[4] hazardous waste recyclers, metal finishers, wood treatment facilities, and chemical

[1] 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.)

[2] 74 FR 37213 at 37219.

[3] National Research Council, "Risk Assessment in the Federal Government: Managing the Process," National Academy Press, Washington, DC, 1983.

[4] 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.

manufacturers.[5] 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).[6] 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 programs; and (8) corporate structures and bankruptcy potential.[7]
- The BR information addresses (either directly or indirectly) (1) the amounts of RCRA hazardous wastes[8] 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, predates 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.[9] 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 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[10][11] 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.[12]

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;[13] (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;[14]

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[5] 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 Manufactures 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 CERLCA 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.

[6] 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.

[7] 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.

[8] RCRA hazardous wastes are, under CERCLA Section 101(14), defined as CERCLA hazardous substances.

[9] EPA 2007. "Introduction to the Hazard Ranking System (HRS)." Available at: *http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm.*

[10] 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.*

[11] This information can be found in the docket for this **Federal Register** notice.

[12] In this analysis, EPA excluded sites identified within those classes of Hardrock Mining already discussed in the July 2009 notice.

[13] 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.

[14] 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 [15]—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 [16]	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.

[15] 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

[16] 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).[17] Specifically, the 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 not be expected to produce these results since coal combustion residuals (CCRs) are "Bevill exempt" [18] 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 [19] 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.[20] 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

[17] The Waste Management and Remediation Services industry also seems, at first glance, to emerge from this analysis as appropriate for 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.

[18] The "Bevill" exemption is codified at 40 CFR 261.4(b)(7).

[19] 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.

[20] 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; Gambrills, 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.[21] 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).[22] 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.[23] The removal of impurities leads to the formation of brine muds, a large waste stream containing the hazardous substances sulfate, chloride, and carbon tetrachloride.[24]

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.[25] Chemical synthesis can be responsible for significant emissions of hazardous substances, including ammonia, ethylene, aromatics, alcohols, oxides, acids, and chlorine.[26] 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.[27]

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

[21] 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).

[22] 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.*

[23] 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.*

[24] 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.*

[25] 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.*

[26] 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.*

[27] Ibid.

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.[28] Pharmaceutical manufacturers typically utilize a series of separation, crystallization, purification, and drying stages in formulating a product.[29] 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.[30] 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.[31]

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.[32]

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.[33]

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.[34]

In some cases, these wastes have led to ground and surface water contamination when improperly managed.[35] 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.[36] 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.[37] 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.[38] [39]

[28] Ibid.

[29] 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.*

[30] 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.*

[31] Ibid.

[32] 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.

[33] 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.*

[34] 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=3256&-_lang=en* Accessed: September 9, 2009.

[35] 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.*

[36] 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.

[37] EPA 2009. NPL Site Narrative for Pemaco Maywood. Available at: *http://www.epa.gov/superfund/sites/npl/nar1517.htm.*

[38] EPA 2009. NPL Site Narrative for Woolfolk Chemical Works, Inc. Available at: *http://www.epa.gov/superfund/sites/nplsnl/n0401315.pdf.*

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.[40] [41] 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 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.[42] [43]

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.[44] 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.[45]

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 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.[46]

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.[47]
- 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.[48]

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:

[39] Facility Detail Report for Woolfolk Chemcial 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* accessed: September 4, 2009.

[40] 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.

[41] 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.

[42] 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.*

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

[44] *United States* v. *Bestfoods*, 542 U.S. 51, 61(1998).

[45] 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.*

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

[47] 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.*

[48] 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).[49] 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);
- Manufacturing synthetic lubricating oils and greases (NAICS code 325998);[50]
- 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).[51] 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.[52] 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.[53]

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 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.[54] 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)[55] was 14.17 million barrels per calendar day in 2007.[56] 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[57] 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

[49] 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).

[50] 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.

[51] 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.*

[52] 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.

[53] Ibid.

[54] U.S. Census Bureau, 2009. 2007 Economic Census. Accessed at: *http://factfinder.census.gov/servlet/IBQTable?_bm=y&-ds_name=EC0731I1&-NAICS2007=3241106&-ib_type=NAICS2007&-geo_id=&-_industry=3241106&-_lang=en.*

[55] 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.

[56] 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/frstables.cfm?tableNumber=28&startYear=1998&endYear=2007.*

[57] 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.[58] 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, Aranas 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.[59]

Another example demonstrating the release of hazardous substances at such facilities is the Tennessee Products site in Chattanooga, Tennessee.[60] 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.[61] 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.[62]

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.[63] In certain 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,[64] 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.[65,66] Thus, EPA's past

[58] EPA. NPL Site Narrative for Falcon Refinery. Available at: *http://www.epa.gov/superfund/sites/npl/nar1667.htm.*

[59] Ibid.

[60] 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://www.epa.gov/region4/waste/npl/npltn/tnprod/chtgcrkppf.pdf.*

[61] Ibid.

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

[63] 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 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.

[64] Ibid.

[65] 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.

[66] 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

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.[67]
- 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, ethlybenzene, 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.[68]

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).[69]

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.[70]

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.[71] 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.[72]

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

[67] 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;* 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.*

[68] 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.

[69] 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.*

[70] 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.*

[71] 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.*

[72] 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.*

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 [73] 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.[74] 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.[75] 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_x 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.[76]

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 [77] 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.[78] 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 [79] to groundwater or surface water.[80] In one recent damage 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,

[73] 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.

[74] 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.

[75] 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.

[76] U.S. Census Bureau, 2007 Economic Census. Available at: *http://factfinder.census.gov.*

[77] See footnote 19.

[78] 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. Gambrills, MD; and Kingston/TVA, TN.

[79] 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.

[80] 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=DocumentDetail&d=EPA-HQ-RCRA-2006-0796-0015;* excluding the four damage cases from oil combustion wastes, but including Battlefield Golf 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).

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.[81] In addition, for the Chisman Creek NPL site, EPA has spent approximately $1.4 million through September 2009.[82] [83]

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.[84] 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

[81] See "TVA Reports 2009 Fiscal Year Third Quarter Results." Available at: *http://www.tva.gov/news/releases/julsep09/3rd_quarter.htm.*

[82] 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.

[83] 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.

[84] 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, 1998. "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,* 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, guarantees, 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 CERLCA 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.[85]

Dated: December 30, 2009.

Lisa P. Jackson,

Administrator.

[FR Doc. E9–31399 Filed 1–5–10; 8:45 am]

BILLING CODE 6560–50–P

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.

[85] 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.* 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

Certified Product Notification Forms. Award applicants are estimated to spend an additional 20 hours on average to complete the awards application. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

Estimated Number of Respondents: 357 state and local government; 1,319 private sector organizations, and 668 individuals per year.

Frequency of Response: Varies.

Estimated Total Annual Hour Burden: 57,248 hours.

Estimated Total Annual Cost: $4,665,618, including $1,793,181 in operation & maintenance costs.

Are There Changes in the Estimates From the Last Approval?

The overall burden estimate for this collection is 7,167 hours higher than the burden estimated under the current ICR because the WaterSense program has been launched and expanded since the current ICR was approved. The change in burden reflects the substantial increase in the number of products certified, new partners joining and reporting, and the addition of the New Homes portion of the program. EPA also has a better understanding of how long it takes partners to complete program forms, now that the program is underway.

What Is the Next Step in the Process for This ICR?

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT.**

Dated: July 20, 2009.

James Hanlon,

Director, Office of Wastewater Management.

[FR Doc. E9–17927 Filed 7–27–09; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–SFUND–2009–0265; FRL–8931–7]

RIN 2050–AG56

Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements

AGENCY: Environmental Protection Agency (EPA)

ACTION: Priority notice of action.

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. CERCLA Section 108(b) also requires EPA to publish a notice of the classes for which financial responsibility requirements will be first developed. To fulfill this requirement, EPA is by this notice identifying classes of facilities within the hardrock mining industry for which the Agency will first develop financial responsibility requirements under CERCLA Section 108(b). For purposes of this notice, hardrock mining facilities include those which extract, beneficiate or process metals (*e.g.*, copper, gold, iron, lead, magnesium, molybdenum, silver, uranium, and zinc) and non-metallic, non-fuel minerals (*e.g.*, asbestos, gypsum, phosphate rock, and sulfur).

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;* or Elaine Eby, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, Mail Code 5304P,1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone (703) 603–844; or (e-mail) *Eby.Elaine@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–2009–0265. 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 Confidential Business Information (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 RCRA Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Avenue, NW., Washington, DC. 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.

B. Table of Contents

I. Introduction

Section 108(b), 42 U.S.C. 9608 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 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: [1]

> * * * identify those classes for which requirements will be first developed and publish notice of such identification in the **Federal Register**.[2]

EPA is publishing this notice to fulfill its obligations under CERCLA Section 108(b) to identify those classes of facilities, owners, and operators (herein referred to as classes of facilities) for which financial responsibility requirements will first be developed.

For the reasons that follow, the Agency has identified classes of facilities within the hard-rock mining industry as its priority for the development of financial responsibility requirements under CERCLA Section 108(b). For purposes of this notice only, hardrock mining is 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, gypsum, phosphate rock, and sulfur).[3] (*See* Section VI of this notice for a discussion of EPA's consideration of additional classes of facilities for developing financial responsibility requirements under Section 108(b) of CERCLA.)

II. EPA's Approach for Identifying Those Classes of Facilities for Which Requirements Will Be First Developed

In accordance with CERCLA Section 108(b) EPA worked to determine which classes of facilities it should identify as its priority. CERCLA Section 108(b) directs the President to "identify those classes for which requirements will be first developed and publish notice of such identification [.]" However, this simple sentence does not spell out a particular methodology by which the identification is to be made. While EPA views this statutory ambiguity as allowing substantial discretion in making the identification, EPA looked to the rest of CERCLA Section 108(b) to inform its exercise of this discretion.

Examination of CERCLA Section 108(b) as a whole 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 the last sentence 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.*" Paragraph (b)(2) also 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 * * *." Accordingly, EPA chose to look for indicators of risk and its related effects to inform its selection of classes for which it would first develop requirements under CERCLA Section 108(b). As a practical method of doing so, EPA reviewed information contained in a number of studies, reports, and analyses. This review pointed to numerous factors EPA should consider. For example, typical elements in evaluating risk to human health and the environment include: the probability of release, exposure, and toxicity.[4] While some of the considerations reflect these basic elements of risk evaluation, others relate more closely to the severity of consequences that result when those risks are realized, such as the releases' duration if not prevented or quickly controlled as a result of economic factors and the exposures that can result. Therefore, EPA has chosen to evaluate the following factors: (1) Annual amounts of hazardous substances released to the environment; (2) the number of facilities in active operation and production; (3) the physical size of the operation; (4) the extent of environmental contamination; (5) the number of sites on the CERCLA site inventory (including both National Priority List (NPL) sites and non-NPL sites); (6) government expenditures; (7) projected clean-up expenditures; and (8) corporate structure and bankruptcy potential.

Toxicity is reflected in the designation of substances as CERCLA hazardous substances. Current releases of hazardous substances, number of operating facilities, the physical size of an operation, the extent of environmental contamination, and the number of sites on the CERCLA site inventory (non-NPL sites and NPL sites) are factors that can relate to the probability of a release of a hazardous substance, as well as the potential for exposure. These are discussed in detail, in Section IV of this notice. Government expenditures, projected clean-up costs, and corporate structure and bankruptcy potential can relate to the severity of the consequences as a result of releases and exposure of hazardous substances. These are discussed in Section V of this notice.

EPA's review of all these factors, as reflected in the information presented in this notice and included in the docket, makes it readily apparent that hardrock mining facilities present the type of risk that, in light of EPA's current assessment, justifies designating such facilities as those for which EPA will first develop financial responsibility requirements pursuant to CERCLA Section 108(b).[5]

III. Identification of Classes of Facilities in Hardrock Mining

For purposes of this notice, EPA has included the following classes of facilities under the general title of hardrock mining: facilities which extract, beneficiate or process metals (*e.g.* copper, gold, iron, lead, magnesium, molybdenum, silver, uranium, and zinc) and non-metallic, non-fuel minerals (*e.g.* asbestos, gypsum, phosphate rock, and sulfur).[6] As explained below, hardrock mining 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 "hardrock mining facilities" are properly considered to encompass multiple "classes" of facilities. The various classes in this notice's definition of hardrock mining are involved in two general activities: (1) The extraction of an ore or mineral from the earth; and (2) using various beneficiation activities and processing operations to produce a targeted material product, such as a metal ingot. The operations that comprise hardrock mining (*i.e.*, extraction, beneficiation, and then processing) are all part of a sequential process of converting

[1] 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. 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

[2] 42 U.S.C. 9608 (b)(1).

[3] *See* memorandum to Jim Berlow, USEPA from Stephen Hoffman, USEPA and Shahid Mahmud, USEPA. *Re:* Mining Classes Not Included in Identified Classes of Hardrock Mining. June 2009.

[4] "Risk Assessment in the Federal Government: Managing the Process." National Research Council. National Academy Press, Washington, DC. 1983.

[5] Today's identification of hardrock mining 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 hardrock mining facilities are subject to any financial assurance requirements.

[6] EPA notes that this notice does not affect the current Bevill status of extraction, beneficiation and processing wastes as codified in 40 CFR 261.4(b)(7).

material removed from the earth into marketable products, even though the intermediate and end products differ. Extraction, beneficiation or processing of ores and minerals can involve similar processes across types of mining, as discussed below.

However, hardrock mining is also properly considered to encompass multiple "classes" that represent a range of activities and marketable products. Extraction differs from beneficiation and both differ from processing, and depending upon the product sought, different types of processes are used. Extraction, also called mining, is the removal of rock and other materials that contain the target ore and/or mineral. The physical processes used to accomplish this vary, but are nonetheless often shared across different types of mining. These physical processes include surface, underground, and in-situ solution mining. Overburden and waste rock are removed during surface and underground extraction processes in order to gain access to the ore. Overburden and waste rock are disposed of in dumps near the mine. The dumps may or may not be lined or covered. In-situ mining involves the recovery of the metal from the ore by circulating solutions through the ore in its undisturbed geologic state and recovering those solutions for processing. The principal environmental protection concern with in-situ mining is the control and containment of the leach solutions.

Typically the next step after extraction, beneficiation involves separating and concentrating the target mineral from the ore. There are, however, many different ways in which beneficiation can occur. Beneficiation activities generally do not change the mineral values themselves other than by reducing (*e.g.* crushing or grinding) or enlarging (pelletizing or briquetting) particle size to facilitate processing, but can involve the introduction of water, other substances, and chemicals (including hazardous substances). A common beneficiation technique is flotation. Froth flotation involves adding forced air and chemicals to an ore slurry causing the target mineral surfaces to become hydrophobic and attach to air bubbles that carry the target minerals to the top of a floatation vessel. The surface froth containing the concentrated mineral is removed, and thus separated from the other waste minerals. The remaining waste minerals are called tailings. Leaching, another beneficiation technique, involves the addition of chemicals to ores or flotation concentrates in order to dissolute the target metal. For example, solvents, such as sulfuric acid are used to leach copper and sodium cyanide is used to leach gold. Following leaching, the leftover waste product is called spent ore (in heap leaching) or tailings (in other types of leaching). There are various other beneficiation techniques and intermediate processes that are used and not described here. However, flotation and leaching are the most common techniques used in the mining industry. Tailings from beneficiation are disposed in a variety of ways, most commonly in tailing ponds. Design of tailings ponds differ and may or may not include liners, seepage control, surface water diversions, and final covers. Regardless, many tailings ponds require long-term management of waste and the impoundment dam.

Processing is the refining of ores or mineral concentrates after beneficiation to extract the target material. As with beneficiation, there are many different ways of processing the ores or mineral concentrates. For example, mineral processing operations can use pyrometallurgical techniques (the use of higher temperatures as in smelting), to produce a metal or high grade metallic mixture. Smelting generates a waste product called slag. Slag is initially placed directly on the ground to cool, and is often subsequently managed into a wide range of construction materials (*e.g.*, road bed or foundation bedding).

Both because of the ways that the facilities covered by this notice fit together, and because of the range of activities that they cover, EPA believes hardrock mining is properly identified as a group and considered to include multiple classes of facilities.

IV. Hardrock Mining—Releases and Exposure to Hazardous Substances

As discussed above, evaluations of risk typically include considerations of the probability of a release, including its potential scale and scope, the exposure potential and toxicity. EPA research indicates that the hardrock mining 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. Indeed, EPA estimates that the hardrock mining industry is responsible for polluting 3,400 miles of streams and 440,000 acres of land.[7] The U.S. Forest Service (USFS) estimates that approximately 10,000 miles of rivers and streams may have been contaminated by acid mine drainage from the metal mining industry.[8]

The Agency examined its 2007 Toxic Release Inventory (TRI), and this data revealed that the metal mining industry[9] (*e.g.*, gold ore mining, lead ore and zinc ore mining, and copper ore and nickel ore mining) releases enormous quantities of toxic chemicals, at nearly 1.15 billion pounds or approximately 28 percent of the total releases by U.S. industry that is required to report under the TRI program.[10] [11] This overall percentage has remained relatively stable since 2003, ranging from 25 percent (1.07 billion pounds) of total releases in 2004 to 29 percent (1.26 billion pounds) of total releases in 2006. In 2007, the majority of releases of hazardous substances from the metal mining industry were to the land, with additional releases to both the air and surface waters. Additional releases of hazardous substances were reported to TRI from metal processing facilities (*e.g.*, primary smelting of copper) with significant releases to the air and land.

The potential for releases of and exposure to hazardous substances is also reflected in the number of active facilities operating in the U.S. While estimates of the number of active mining facilities vary, in 2004, EPA estimated that there were 1,000 metal and non-metal mineral mines and processing facilities in the U.S. Furthermore, many mining facilities have been in operation for decades and can exceed thousands of acres in size.[12] Since large mines may be operated for decades, this can extend the time frame for potential releases and exposure of hazardous substances. At individual facilities, hardrock mining operations

[7] U.S. EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[8] U.S. EPA 2004. "Nationwide Identification of Hardrock Mining Sites." Office of Inspector General. Report No. 2004–P–00005. Accessed at: *http://epa.gov/oig/reports/2004/20040331-2004-p-00005.pdf.*

[9] Metal mining industry is defined as NAICS Code 2122 (Metal Mining).

[10] U.S. EPA 2009. Toxic Release Inventory, 2007 Updated Data Releases, as of March 19, 2009.

[11] TRI estimates include all on-site and off-site releases 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. However, less than one percent of hazardous substances are managed in this manner. Thus, the data demonstrates the enormous volume of hazardous chemical releases reported to TRI by the metal mining industry and is an indication of the high volume of hazardous substances it manages, and the industry's potential for posing health and environmental risk.

[12] National Research Council. 2005. *Superfund and Mining Megasites: Lessons from the Coeur d'Alene River Basin.* The National Academies Press, Washington, DC. Accessed at: *http://www.nap.edu/catalog.php?record_id=11359.*

may disturb thousands of acres of land and impact watersheds including, to varying degrees, effects on groundwater, surface water, aquatic biota, aquatic and terrestrial vegetation, wetlands, wildlife, soils, air, cultural resources, and humans that use these resources recreationally or for subsistence.[13]

Hardrock mining facilities also generate an enormous volume of waste, which may increase the risk of releases of hazardous substances. Annually, hardrock mining facilities generate between one to two billion tons of mine waste.[14] This waste can take a variety of forms, including mine water, waste rock, overburden, tailings, slag, and flue dust and can contain significant quantities of hazardous substances. The 2007 TRI data demonstrate that hardrock mining facilities reported large releases of many hazardous substances, including ammonia, benzene, chlorine, hydrogen cyanide, hydrogen fluoride, toluene, and xylene, as well as heavy metals and their compounds (*e.g.*, antimony, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, vanadium and zinc).[15] Similarly, the National Research Council (NRC) has indicated that hazardous substances of particular concern include heavy metals, ammonia, nitrates, and nitrites.[16]

These releases, in some cases, have lead to ground and surface water contamination from acid mine drainage and metal leachate, and air quality issues resulting from heavy metal-contaminated dust or emissions of gaseous metals from thermal processes.[17] Acid mine drainage is the formation and movement of acidic water which dissolves and transports metals into the environment. This acidic water forms through the chemical reaction of surface water (rainwater, snowmelt, pond water) and shallow subsurface water with rocks (*e.g.*, waste rock, tailings, mine walls) that contain sulfur-bearing minerals, resulting in the production of sulfuric acid. Metals can be leached from rocks that come in contact with the acid, a process that may be substantially enhanced by bacterial action.[18] The resulting acidic and metal-contaminated fluids may be acutely or chronically toxic and, when mixed with groundwater, surface water and soil, may have harmful effects on humans, fish, animals, and plants.[19] When acid mine drainage occurs, it is extremely difficult and often expensive to control and often requires long-term management measures.[20] Air, land and water contamination may also result when waste rock dumps, tailings disposal facilities and open pits are not maintained properly and there are releases of hazardous substances to the environment.[21] Additional risks can occur with the use of cyanide in gold mining operations, including the possible release of cyanide into soil, groundwater, and/or surface waters or catastrophic cyanide spills.[22] Contaminants of concern at uranium mines include radionuclides. Due to the volume of the hazardous substances generated and released and the potential for long-term management of acid mine drainage, the cause for concern is only heightened.

Other studies and EPA's analysis of NPL data also underscores the risk of hardrock mining facilities. The NPL is a list of national priorities among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the U.S. The Hazard Ranking System (HRS), the scoring system EPA uses to assess the relative threat associated with a release from a site, is the primary method used to determine whether a site should be placed on the NPL.[23] 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 sites with scores of 28.50 or above. The HRS is a proven tool for evaluating and prioritizing the releases that may pose threats to human health and the environment throughout the nation. In 2005, the NRC noted that at the largest mining sites, or mega sites (*i.e.*, those with projected cleanup costs exceeding $50 million), "wastes* * * are dispersed over a large area and deposited in complex hydrogeochemical and ecologic systems that often include human communities and public natural resources."[24] For example, a molybdenum mine located near Questa, New Mexico, began operations in 1919 and some underground mining operations are still in operation today. The mine's operational capacity is reportedly 20,000 tons of ore processed at the facility per day, although it does not typically operate at capacity. The site stretches over approximately three square miles of land. Across this large area, operations include an underground mine, a milling facility, a nine-mile long tailings pipeline and a tailing disposal facility. There is also an open pit and waste rock dumps at the mine site, which were created during open-pit mining operations. Other problems at the site include subsidence areas with a surface depression from active underground operations.[25]

In 2004, EPA's Office of Inspector General (OIG) examined 156 hardrock mining sites that are part of the CERCLA site inventory and concluded that ecological and environmental risks are often substantial. For the 82 Non-NPL sites that were evaluated, 64 percent had a current high or medium ecological/environmental risk, while the percentage of sites that were found to have low risk was only 13%. Another 23% had an unknown level of risk.[26]

In support of this notice, EPA examined not only sites listed on the

[13] National Research Council. 1999. *Hardrock Mining on Federal Lands.* National Academies Press. Washington, DC.

[14] U.S. EPA 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[15] *See* Memorandum to the Record: Toxic Release Inventory (TRI) Releases from Hardrock Mining Operations. June 2009.

[16] National Research Council. 1999. Hardrock Mining on Federal Lands. National Academies Press. Washington, DC. Also, EPA conducted a preliminary review of the Records of Decisions (RODs) for a selected group mining NPL sites. These substances were found to be common contaminants at those sites. Accessed at *http://books.nap.edu/catalog.php?record_id=9682.*

[17] U.S EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[18] U.S. EPA. 1997. "EPA's National Hardrock Mining Framework." Accessed at: *http://www.epa.gov/owm/frame.pdf.*

[19] U.S. EPA 2009. Accessed at: *http://www.epa.gov/nps/acid_mine.html.*

[20] The conventional approach to treating contaminated ground or surface water produced through acid drainage involves an expensive, multi-step process that pumps polluted water to a treatment facility, neutralizes the contaminants in the water, and turns these neutralized wastes into sludge for disposal. U.S. EPA. Profile of the Metal Mining Industry. September 1995. *See also:* Lind, Greg. 2007. Testimony to the Subcommittee on Energy and Mineral Resources of the Committee on Natural Resources, U.S. House of Representatives, One Hundred Tenth Congress. Serial No. 110–46.

[21] U.S. EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[22] U.S. EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[23] U.S. EPA. 2007. "Introduction to the Hazard Ranking System (HRS)." Accessed at: *http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm.*

[24] National Research Council. 2005. *Superfund and Mining Megasites: Lessons from the Coeur d'Alene River Basin.* The National Academies Press, Washington, DC. Accessed at: *http://www.nap.edu/catalog.php?record_id=11359.*

[25] USEPA Administrative Order on Consent for Molycorp RI/FS (2001). Molycorp is proposed for listing on the NPL. More information is at *http://www.epa.gov/region6/6sf/pdffiles/0600806.pdf.*

[26] U.S. EPA 2004. "Nationwide Identification of Hardrock Mining Sites." Office of Inspector General. Report No. 2004–P–00005, Figure 4.2. Accessed at: *http://epa.gov/oig/reports/2004/20040331-2004-p-00005.pdf.*

NPL, but also sites proposed (including sites with Superfund alternative approach agreements in place) and deleted from the NPL.[27] As of April, 2009, approximately 90 hardrock mining sites have been listed on the NPL, and another 20 facilities have been proposed for inclusion on the list.[28]

V. Hardrock Mining—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 is evident by analyzing a number of factors. Specifically, the past and estimated future costs associated with protecting public health and the environment through what is often extensive and long-term reclamation and remediation efforts, as well as corporate structure and bankruptcy potential. This information also plays a significant role in leading EPA to conclude that classes of facilities involved in hardrock mining should be the first for which financial assurance requirements are developed under CERCLA Section 108(b).

The severity of consequences posed by hardrock mining facilities is evident in the enormous costs associated with past and projected future actions necessary to protect public health and the environment, after releases from hardrock mining facilities occur. In other words, the documented expenditures reflect efforts to correct the realized risks from hardrock mining facilities. As noted earlier, these facilities release large quantities of hazardous substances, often over hundreds of square miles and, in some instances, have resulted in groundwater and surface water contamination that requires long-term management and treatment. Remediation of these hardrock mining facilities has therefore been historically costly. EPA's past experience with these sites leads it to conclude that hardrock mining facilities are likely to continue to present a substantial financial burden that could be met by financial responsibility requirements. These enormous expenditures have been documented in a United States Government Accountability Office (GAO) study, and EPA's own data confirm the large amounts of money spent by the Federal government alone. The GAO, in its report "Current Government Expenditures to Cleanup Hard Rock Mining Sites," reported that in total, the Federal government spent at least $2.6 billion to remediate hardrock mine sites from 1998 to 2007. EPA spent the largest amount at $2.2 billion, with the USFS, the Office of Surface Mining, and the Bureau of Land Management spending $208 million, $198 million, and $50 million, respectively.[29] EPA's expenditure data show that between 1988 and 2007, for mining sites with response actions taken under EPA removal and remedial authorities (including sites proposed, listed, and deleted from the NPL and sites with Superfund alternative approach agreements in place), approximately $2.7 billion was spent.[30] [31] Of this total, $2.4 billion was spent at the 84 sites listed as final on the NPL list at that time.[32]

Estimated costs of remediation for all hardrock mining facilities from several sources have generally been in the range of billions of dollars. EPA has estimated that the cost of remediating all hardrock mining facilities is between $20 and $54 billion. EPA's analysis showed that if the total Federal, State, and potentially responsible party outlays for remediation were to continue at existing levels ($100 to $150 million annually), no more than eight to 20 percent of all cleanup work could be completed within 30 years.[33] In another analysis based on a survey of 154 large sites, EPA's OIG projected that the potential total hardrock mining remediation costs totaled $7 to $24 billion. OIG calculated that this amount is over 12 times EPA's total annual Superfund budget of about $1.2 billion from 1999 to 2004.[34] The annual Superfund budget from 2004 through 2008 remained consistent with OIG's assessment, at approximately $1.25 billion.[35] [36]

Common corporate structures and interrelated corporate failures within the hardrock mining industry increase the likelihood of uncontrolled releases of hazardous substances being left unmanaged, increasing risks. To begin with, mine ownership is typically complex, with individual mines often separately incorporated.[37] The existence of a parent-subsidiary relationship can present several risks. First, corporate structures may allow parent

[27] A significant number of response actions have been taken by several Federal agencies at hardrock mining facilities under CERCLA removal and emergency response authorities. Those actions were not evaluated for purposes of this Notice because of the lack of immediately available data. EPA alone took non-NPL removal actions at 99 mining sites between 1988 and October 2007. Provided to GAO for GAO 2008, "Hardrock Mining: Information on Abandoned Mines and Value and Coverage of Financial Assurance on BLM Land." GAO–08–574T. Other Federal agencies also use non-NPL removal authorities to address releases from mining sites. Accessed at: *http://www.gao.gov/highlights/d08574thigh.pdf.*

[28] Provided to GAO for GAO 2008, "Hardrock Mining: Information on Abandoned Mines and Value and Coverage of Financial Assurance on BLM Land." GAO–08–574T. Accessed at: *http://www.gao.gov/new.items/d08574t.pdf.* and updated to reflect sites finalized on the NPL in 2008 and 2009. The 2008 and 2009 NPL updates can be found at: *http://www.epa.gov/superfund/sites/npl/status.htm.*

[29] U.S. Government Accountability Office. 2008. "Information on Abandoned Mines and Value and Coverage of Financial Assurance on BLM Land. GAO–08–574T. Accessed at: *http://www.gao.gov/highlights/d08574thigh.pdf.*

[30] Moreover, EPA's cost data likely underestimates true cleanup costs, because they do not include costs borne by the States and potentially responsible parties. These costs only reflect expenditures to date. To reach construction completion, many sites will require additional, substantial remediation efforts. In addition, sites with acid mine drainage may require water quality treatment in perpetuity. Lind, Greg. 2007. Testimony to the Subcommittee on Energy and Mineral Resources of the Committee on Natural Resources, U.S. House of Representatives, One Hundred Tenth Congress. Serial No. 110–46.

[31] U.S. EPA. 2007. Superfund eFacts Database. Accessed: October 24, 2007; U.S. Environmental Protection Agency. 2007 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Provided to GAO for their report, GAO 2008, "Hardrock Mining: Information on Abandoned Mines and Value and Coverage of Financial Assurance on BLM Land." GAO–08–574T. Accessed at: *http://www.gao.gov/highlights/d08574thigh.pdf.*

[32] U.S. EPA. 2007. Superfund eFacts Database. Accessed: October 24, 2007; U.S. Environmental Protection Agency. 2007 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Provided to GAO for their report, GAO 2008, "Hardrock Mining: Information on Abandoned Mines and Value and Coverage of Financial Assurance on BLM Land." GAO–08–574T, *http://www.gao.gov/new.items/d08574t.pdf.*

[33] U.S. EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[34] U.S. EPA 2004. "Nationwide Identification of Hardrock Mining Sites." Office of Inspector General. Report No. 2004–P–00005. Accessed at: *http://epa.gov/oig/reports/2004/20040331-2004-p-00005.pdf.*

[35] Appropriation amounts reflect an average of the discretionary appropriation amounts in the President's Budget or Operating Plan between 2004 and 2008.

[36] No single source provides information on estimated future reclamation and remediation costs for hardrock mining facilities. In addition, for those estimates that do exist, remediation costs are often folded in with other reclamation activities, such as correcting safety hazards and landscaping, which leaves the amount attributable to remediation unknown. *See* U.S. EPA. 2004. "Cleaning Up the Nation's Waste Sites: Markets and Technology Trends." EPA 542–R–04–015. Accessed at: *http://www.epa.gov/tio/pubisd.htm.*

[37] For example, one mining company's 2008 SEC 10–K filing noted that its segments included "The Greens Creek unit, a 100%-owned joint venture arrangement, through our subsidiaries Hecla Alaska LLC, Hecla Greens Creek Mining Company and Hecla Juneau Mining Company. We acquired 70.3% of our ownership of Greens Creek in April 2008 from indirect subsidiaries of Rio Tinto, PLC." From this description, it appears that ownership of the mine has involved multiple subsidiaries, under both its current owner and under the previous ownership.

corporations to shield themselves from liabilities of their subsidiaries.[38] In a 2005 study, the GAO cited mining facilities as an example of businesses at risk of incurring substantial liability and transferring the most valuable assets to the parent that could not be reached for cleanup.[39]

Second, many mining interests are located outside of the U.S. According to one report, six of the top ten mining claim owners in the U.S. are multi-national corporations with headquarters outside the U.S.[40] Such multi-national corporations can be difficult to hold responsible for contamination in the U.S. because of the difficulties of locating and then obtaining jurisdiction over the ultimate parent company.

This is of particular concern since the hardrock mining industry has experienced a pattern of failed operations, which often require significant environmental responses that cannot be financed by industry.[41] The pattern of failed operations has been well documented. GAO investigated 48 hardrock mining operations on U.S. Department of Interior (DOI), Bureau of Land Management (BLM) Federal lands that had ceased operations and not been reclaimed by operators since BLM began requiring financial assurance under its regulations. Of the 48 operations, 30 cited bankruptcy as the reason for completing reclamation activities.[42] Numerous other examples exist of bankruptcies in the hardrock mining industry that resulted in or will likely require significant Federal responses, such as:

- When the owner/operator filed for bankruptcy in 1992, it left the Summitville mine in Colorado with serious cyanide contamination and acid mine drainage. In 1994, the site was listed on the NPL. In 2000, EPA estimated that the remediation cost at the mine would be $170 million.[43] As of October 2007, EPA had spent approximately $192 million in cleanup costs.[44]
- In 1999, another mining company filed for bankruptcy, leaving more than 100 million gallons of contaminated water and millions of cubic yards of waste rock at the Gilt Edge Mine in South Dakota.[45] EPA listed the site on the NPL in 2000 and estimated at that time the present value remediation costs to be $50.3 million.[46] Even this estimate, however, does not include water collection and treatment costs that will be handled under additional remediation plans. As of October 2007, EPA expenditures at this site exceeded $56.1 million.[47]
- In 1998, operators of the Zortman Landusky mine in Montana filed for bankruptcy. Numerous cyanide releases occurred during operations which have affected the community drinking water supply on a nearby Tribal reservation. Acid mine drainage has also permeated the ground and surface waters. The projected cleanup costs at the site are estimated to be approximately $85.2 million, of which only $57.8 million will be paid for by the responsible party. State and Federal authorities are projected to pay the remaining $27.4 million for cleanup.[48]
- A large mining company filed for bankruptcy in 2005. The company has estimated the total environmental claims filed against it to have been in excess of $5 billion. Recently approved settlements with the U.S. and certain State governments involving environmental clean-up claims, when combined with settlements already approved by the bankruptcy court for environmental clean-up claims, provide for allowed claims and payments in the bankruptcy in an amount in excess of $1.5 billion and involve in excess of 50 sites. EPA and DOI estimate their combined claims in the bankruptcy at the largest of these sites, an NPL site located in Idaho and Eastern Washington, to be in excess of $2 billion.[49]

Taking all this information into account, EPA concludes that classes of facilities within the hardrock mining industry are those for which EPA should first develop financial responsibility requirements under CERCLA Section 108(b), based upon those facilities' sheer size; the enormous quantities of waste and other materials exposed to the environment; the wide range of hazardous substances released to the environment; the number of active hardrock mining facilities; the extent of environmental contamination; the number of sites in the CERCLA site inventory, government expenditures, projected clean-up costs and corporate structure and bankruptcy potential.

VI. EPA's Consideration of Additional Classes of Facilities for Developing Financial Responsibility Requirements

The Agency believes classes of facilities outside of the hardrock mining industry also may warrant the development of financial responsibility requirements under CERCLA Section 108(b). Therefore, the Agency will continue to gather and analyze data on additional classes of facilities, beyond the hardrock mining industry, and will consider them for possible development of financial responsibility requirements. In determining whether to propose requirements under CERCLA Section 108(b) for such additional classes of facilities, EPA will consider the risks posed and, to do so, 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 cleanup programs; and (8) corporate structures and bankruptcy potential. EPA also intends to consider whether financial responsibility requirements under CERCLA Section 108(b) will effectively reduce these risks. While the Agency recognizes that data for some of these factors may be unavailable or limited in

[38] *See U.S. v. Bestfoods*, 524 U.S. 51, 61 (1998) ("[i]t is a general principle of corporate law * * * that a parent corporation * * * is not liable for the acts of its subsidiaries.")

[39] 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.*

[40] Environmental Working Group. 2006. "Who Owns the West?" Accessed at: *http://www.ewg.org/mining/claims/index.php.*

[41] EPA notes that there are several potential explanations for these failures, such as a boom and bust cycle in the price of commodities, the finite life of a particular ore body or the possibility that closure or reclamation obligations exceed the remaining value of the operation, in addition to factors that can cause bankruptcies in other sectors. However, regardless of the cause, the fact remains a large number of bankruptcies and abandonments have occurred.

[42] U.S. Government Accountability Office. 2005. Hardrock Mining: BLM Needs to Better Manage Financial Assurances to Guarantee Coverage of Reclamation Costs. GAO–05–377. Accessed at: *http://gao.gov/products/GAO-05-377.*

[43] U.S. Environmental Protection Agency. 2000. *Liquid Assets 2000: America's Water Resources at a Turning Point.* EPA–840–B–00–001. Accessed at: *http://www.epa.gov/water/liquidassest.pdf.*

[44] U.S. Environmental Protection Agency. 2007. Superfund eFacts Database. Accessed: October 24, 2007.

[45] CDM. 2008. Final Feasibility Study Report for the Gilt Edge Superfund Site, Operable Unit 1 (OU1). Prepared for EPA, Region VIII. May 2008.

[46] U.S. EPA 2008. Record of Decision for the Gilt Edge Superfund Site Operable Unit 1 (OU1). Accessed at: *http://www.epa.gov/region8/superfund/sd/giltedge/RODGiltEdgeVolumeOne_Text.pdf.*

[47] U.S. EPA. 2007. Superfund eFacts Database. Accessed: October 24, 2007.

[48] U.S. Government Accountability Office. 2005. Hardrock Mining: BLM Needs to Better Manage Financial Assurances to Guarantee Coverage of Reclamation Costs. GAO–05–377. Accessed at: *http://gao.gov/products/GAO-05-377.*

[49] Asarco, LLC, *et al.* U.S. Bankruptcy Court Southern District of Texas. May 15, 2009, Case No. 05–21207, Docket No. 11343.

availability, it plans to consider whatever data are available.

As part of the Agency's evaluation, it plans to examine, at a minimum, the following classes of facilities: hazardous waste generators, hazardous waste recyclers, metal finishers, wood treatment facilities, and chemical manufacturers. This list may be revised as the Agency's evaluation proceeds. EPA is currently scheduled to complete and publish in the **Federal Register** a notice addressing additional classes of facilities the Agency plans to evaluate regarding financial responsibility requirements under CERCLA Section 108(b) by December 2009, and, at that time, will solicit public comment.

VII. Conclusion

Based upon the Agency's analysis and review, it concludes that hardrock mining facilities, as defined in this notice, are those classes of facilities for which EPA should identify and first develop requirements pursuant to CERCLA Section 108(b). EPA will carefully examine specific activities, processes, and/or metals and minerals in order to determine what proposed financial responsibility requirements may be appropriate. As part of this process, EPA will conduct a close examination and review of existing Federal and State authorities, policies, and practices that currently focus on hardrock mining activities.[50]

Dated: July 10, 2009.

Lisa P. Jackson,

Administrator.

[FR Doc. E9–16819 Filed 7–27–09; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–8932–9]

Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes In Jefferson Parish, LA

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This is a notice of EPA's Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes to allow for the discharge of dredged or fill material for the purpose of the construction of the West Closure Complex as part of the larger flood protection project for the greater New Orleans area. EPA believes that this Final Determination for modification achieves a balance between the national interest in reducing overwhelming flood risks to the people and critical infrastructure of south Louisiana while minimizing any damage to the Bayou aux Carpes CWA Section 404(c) site to the maximum degree possible in order to avoid unacceptable adverse effects.

DATES: *Effective Date:* The effective date of the Final Determination for Modification was May 28, 2009.

ADDRESSES: U.S. Environmental Protection Agency, Office of Water, Wetlands Division, Mail code 4502T, 1200 Pennsylvania Ave, NW., Washington, DC 20460. The following documents used in the Bayou aux Carpes modification are listed on the EPA Wetlands Division Web site at *http://www.epa.gov/owow/wetlands/regs/404c.html:* New Orleans District of the Corps letter dated November 4, 2008, requesting that EPA modify the Bayou aux Carpes CWA Section 404(c) designation; Public Notice of Proposed Determination to modify the Bayou aux Carpes CWA Section 404(c) designation published in the **Federal Register** on January 14, 2009; April 2, 2009, Recommended Determination (RD) for modification of the Bayou aux Carpes 404(c) action; and the May 28, 2009, Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes. Additional documents that are related to the Bayou aux Carpes modification can be located on the U.S. Army Corps of Engineers New Orleans District Web site at *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.*

Publicly available document materials are available either electronically through *http://www.regulations.gov* or in hard copy at the Water Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. 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, and the telephone number for the Water Docket is (202) 566–2426.

FOR FURTHER INFORMATION CONTACT: Mr. Clay Miller at (202) 566–1365 or by e-mail at *miller.clay@epa.gov.* Additional information and copies of EPA's Final Determination for Modification are available at *http://www.epa.gov/owow/wetlands/regs/404c.html* or *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.*

SUPPLEMENTARY INFORMATION: Section 404(c) of the Clean Water Act (CWA) (33 U.S.C. 1251 *et seq*) authorizes EPA to prohibit, restrict, or deny the specification of any defined area in waters of the United States (including wetlands) as a disposal site for the discharge of dredged or fill material whenever it determines, after notice and opportunity for public hearing, that such discharge into waters of the United States will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

Congress directed the U.S. Army Corps of Engineers (Corps) to enhance the existing Lake Pontchartrain and Vicinity Hurricane Protection project and the West Bank and Vicinity Hurricane Protection project to the 100-year level of protection. One section of this much larger project is within the Bayou aux Carpes area that is subject to a 1985 EPA CWA Section 404(c) action that prohibited the discharge of dredged or fill material in the Bayou aux Carpes site south of the New Orleans metro area. On November 4, 2008, the New Orleans District of the Corps requested a modification of the Bayou aux Carpes CWA Section 404(c) designation to accommodate discharges to the Bayou aux Carpes wetlands associated with the proposed enhanced levee system in Jefferson Parish, Louisiana.

In evaluating the Corps of Engineers proposal for modification of the 1985 Bayou aux Carpes CWA Section 404(c) Final Determination, the key elements of a Section 404(c) process were followed. These include a hearing and opportunity for the public to provide written comments, preparation and submittal of a Recommended Determination proposed by EPA Region 6 to EPA Headquarters, and a Final Determination for Modification issued by EPA Headquarters.

Background

On October 16, 1985, EPA issued a Final Determination pursuant to Section 404(c) of the Clean Water Act restricting the discharge of dredged or fill material in the Bayou aux Carpes site, Jefferson Parish, Louisiana, based on findings that the discharges of dredged or fill material into that site would have unacceptable

[50] As part of developing proposed and final rules the Agency will consider whether hardrock mining facilities which have a RCRA Part B permit or are subject to interim status under RCRA Subtitle C and already are subject to RCRA financial assurance and facility-wide corrective action requirements need to also be subject to the financial responsibility requirements under Section 108(b) of CERCLA. In addition, EPA is aware and will consider in its development of proposed and final rules, that mining on Federal land triggers either the Bureau of Land Management's (BLM) Part 3809 regulations (43 CFR Part 3809) and the Forest Service's Part 228 regulations (36 CFR Part 228), both have financial responsibility requirements that cover reclamation costs. Many States also have reclamation laws.