Environmental Guidance Document:

Release Reporting for the Oil and Gas Exploration and Production Industry as Required by the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, and the Emergency Planning and Community Right-to-Know Act

API BULLETIN E4
SECOND EDITION, MAY 2003

American Petroleum Institute

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Upstream Segment

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FOREWORD

This document has been developed to provide the oil and gas production industry guidance on reporting releases of hazardous substances and petroleum to water as required by the Clean Water Act (CWA) and reporting releases of hazardous substances into the environment as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA). This document only covers federal requirements for release reporting under the CWA, CERCLA and EPCRA. There are other federal, state, and local laws with spill or release reporting requirements. It is important to understand that compliance with federal reporting requirements does not necessarily satisfy state or local reporting requirements and vice versa.

The document covers the reporting of what most in the industry consider "emergency" releases, which are unplanned and typically are not covered under a permit issued by a government agency. These releases may be to the air, to the ground (and potentially groundwater), to a storm water drainage system, to a waste water system which discharges into a publicly owned treatment works, to traditionally navigable waters or to any other body of water. This document addresses permit exceedances only to the extent that the exceedances are in excess of an established reportable quantity. Releases exceeding permit stipulations, but not meeting an established reportable quantity, may be reportable under other state and federal regulations outside the scope of the CWA, CERCLA and EPCRA.

In preparing the document, API recognized the complexity of the reporting requirements and chose a format to help the user through the various steps associated with deciding what and when to report. The heart of the document is Section 3, which consists of several flowcharts that address the numerous exemptions and requirements of the regulations. The flowcharts were developed with the understanding that the user would have some basic knowledge of the various reporting requirements.

The flowcharts are supported by text (Sections 4, 5, and 6) designed to provide the user with additional insight into the specific questions addressed in the flowcharts. For example, the EPCRA section 302 flowchart asks, "Does the facility have an extremely hazardous substance on site?" The text of the document provides specific guidance on 1) what is considered a facility and 2) what chemicals are considered to be extremely hazardous substances.

Section 7 consists of 17 examples of potentially reportable releases that can occur in oil and gas production operations and shows the user of the document how the flowcharts and text are applied to determine whether an event is reportable.

A list of common oilfield chemicals that may trigger release reporting requirements is included as Appendix A.

The document is not meant to be a substitute for legal advice provided by an attorney. Individuals and organizations using this guidance document are cautioned that requirements of federal, state, and local regulations are constantly evolving and should be reviewed periodically to assure that a company's practices are consistent with current law and regulations.

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NOTE ON REFERENCES: All references to the Code of Federal Regulations in this document are to the edition revised as of July 1, 2002, unless otherwise noted, as updated by Federal Register notices as of the date of publication of this Bulletin. References to the statutes are to the versions in effect as of the date of publication. Daily Federal Register notices

and the Code of Federal Regulations are available online from the Government Printing Office website and the Environmental ProtectionAgency website.[1]

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Suggested revisions are invited and should be submitted to the standardization manager, American Petroleum Institute, 1220 L Street, N.W.,Washington, D.C. 20005.

[1]The Federal Register is available from the Government Printing Office website at http://www.access.gpo.gov/su_docs/aces/aces140.html, and daily notices are posted on the Environmental Protection Agency website at http://www.epa.gov/epahome/rules.html#proposed. The NationalArchives and RecordsAdministration makes the current Code of Federal Regulations available online at http://www.access.gpo.gov/nara/CFR/index.html, and the EPA posts its regulations at http://www.epa.gov/epahome/cfr40.htm.

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1 Overview of Relevant Statutes

1.1 CLEANWATER ACT (CWA)[1]

Section 311(b) of the CWA, 33 U.S.C. §1311(b), prohibits the discharge of harmful quantities of oil or hazardous substances in or on "navigable waters of the United States, "including a broad range of bodies of water that are not literally navigable.The person in charge of a vessel, an onshore facility, or an offshore facility must report to the National Response Center (NRC) prohibited discharges of oil or hazardous substances. Regulations define the reportable quantities (RQs) of hazardous substances and the harmful quantity of oil, which includes any amount that creates a sheen. Section 4 includes a detailed discussion of CWA notice requirements.

1.2 THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA OR SUPERFUND)[2]

Although CERCLA is known primarily for its provisions dealing with the clean-up of sites where hazardous wastes and hazardous substances have been abandoned, CERCLA §§102 and 103, 42 U.S.C. §§9602 and 9603, establish a program for reporting releases of hazardous substances. Section 103(a) requires any person in charge of a vessel or an onshore or offshore facility to notify the NRC as soon as that person has knowledge of a release of an RQ of a hazardous substance in a 24-hour period. CERCLA provides relief from reporting releases that are "federally-permitted," and reduced reporting requirements apply for releases that qualify as "continuous releases." Crude oil (petroleum) and natural gas, or any fraction thereof, are excluded from the definition of hazardous substance under CERCLA. Section 5 includes a detailed discussion of CERCLA notification requirements.

1.3 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA)[3]

EPCRA was adopted in 1986 as part of the SuperfundAmendments ReauthorizationAct, but it is a free-standing statute, separate from the Superfund program.

EPCRA section 301 establishes a framework for local emergency response planning and requires the governor of each state to establish a State Emergency Response Commission (SERC). These state commissions then designate emergency planning districts and appoint local emergency planning committees (LEPCs) for each district. EPCRA §301, 42 U.S.C. §11001.

EPCRA also imposes several obligations on industry. Each facility with a threshold planning quantity (TPQ) of an extremely hazardous substance (EHS) present must appoint an emergency coordinator and must notify the state commission that it is subject to emergency planning requirements. EPCRA §§302-303, 42 U.S.C. §§11002-11003. Most importantly, §304, 42 U.S.C. §11004, requires a facility to notify SERCs and LEPCs when it releases an RQ of an EHS or a CERCLA hazardous substance in a 24-hour period.[4]

Other EPCRA provisions focus on providing information to the public on chemicals present in the community, including the type, amount, location, use, disposal, and release into the environment of such chemicals. EPCRA §311, 42 U.S.C. §11021, requires covered facilities to file copies of Material Safety Data Sheets (MSDSs) (or a list of chemicals covered by an MSDS)

[1]FederalWater Pollution ControlAct, 33 U.S.C. §1251 *et. seq.* Subsequent citations to the CWA will appear in the text.
[2]Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 *et seq.* Subsequent citations to CERCLA will appear in the text
[3]Emergency Planning and Community Right-to-KnowAct, 42 U.S.C. §11001 *et seq.* Subsequent citations to EPCRA will appear in the text.
[4]In the case of the release of an EHS that is a CERCLA hazardous substance EPCRA, like CERCLA, requires notice if the release is of an RQ; however, in the case of the release of an EHS that is not a CERCLA hazardous substance, the statute requires notice if the release "is in an amount in excess of" an RQ. EPCRA §304(a)(2)(B) (emphasis added). Although the statute defines the reporting obligation for such EHS releases as in excess of the RQ, the regulations require a report of a release of an RQ. 40 *CFR* §355.40(a). For the sake of simplicity, this Bulletin, even when referring to the statutory reporting obligations will, like the EPA regulations, ignore the distinction

with LEPCs, SERCs, and local fire departments. Any facility required to submit MSDSs or chemical lists also must submit annual emergency and hazardous chemical inventory forms to the LEPC, SERC, and local fire department.

EPCRA §313, 42 U.S.C. §11023, requires facilities in certain industrial sectors to file toxic release inventory (TRI) information for certain chemicals they manufacture, process, or otherwise use. This Bulletin does not cover the TRI program because oil and gas exploration and production operations are not included among the industrial categories subject to the TRI program.[5]

2 Overview of Government Agencies

2.1 NATIONAL RESPONSE CENTER

The Clean Water Act requires the person in charge to notify "the appropriate agency" of prohibited discharges to "navigable waters" of oil or a hazardous substance in an RQ. CWA §311(b), 33 U.S.C. §1321(b). The "appropriate agency" is the National Response Center (NRC) of the U.S. Coast Guard. 40 *CFR* §110.6. Similarly, CERCLA directs that notice of a hazardous substance release be provided to the NRC. CERCLA §103(a), 42 U.S.C. §9603(a).

The NRC, located at U.S. Coast Guard Headquarters, acts as the point of contact for all reports of pollution incidents reportable under the CWA and CERCLA and as the communications center for the National Response Team. The NRC receives and immediately relays telephone notices of discharges or releases to the appropriate federal on-scene-coordinator (OSC), including the Federal Emergency ManagementAgency in the event of a potential disaster or evacuation situation.

Both the CWA and CERCLA regulations require telephone notice to the NRC of releases or discharges. The telephone number is (800) 424-8802, or in metropolitan Washington, D.C. (202) 267-2675. Regulations implementing the CWA reporting requirement allow notice to the pre-designated OSC when direct reporting to the NRC is not practicable. 40 *CFR* §110.6. See 4.5.

See 4.5 and 5.14 andAppendix B for additional information on online reporting and for an outline of information the NRC will request.

2.2 THE STATE EMERGENCY RESPONSE COMMISSION OR SERC

EPCRA section 301(a) calls for the establishment of state emergency response commissions (SERCs)[6]. The Governor of each state is directed to appoint the SERC, and members of the SERC are to be technical experts in their respective fields. The SERC is responsible for the following:

- appointing the local emergency planning committees (LEPCs),
- supervising and coordinating the activities of the LEPCs,
- establishing procedures for receiving and processing requests from the public for information, and
- designating an official to serve as information coordinator.

2.3 THE LOCAL EMERGENCY PLANNING COMMITTEE OR LEPC

EPCRA also directs the SERC to designate emergency planning districts and to appoint members of a LEPC for each district.[7] The membership of each LEPC is to include, among others, elected state and local officials and representatives of law enforcement, civil defense, fire departments, community groups, and facilities subject to EPCRA.

The LEPC must establish procedures for receiving and processing requests for information. Each LEPC also must establish rules to provide for public notification of committee activities, public meetings to discuss the emergency plan, and distribution of the emergency response plans.

Each LEPC prepares a comprehensive emergency response plan. In so doing, the LEPC must evaluate the need for resources to develop and implement the plan and must make recommendations regarding any additional resources that may be required.

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[5] EPCRA allows the Environmental Protection Agency (EPA) to expand the program's coverage by regulation. EPA proposed adding E&P operations, along with other industrial categories, to the TRI program in 1996. See "Addition of Facilities in Certain Industry Sectors; Toxic Chemical Release Reporting; Community Right to Know; Proposed Rule," 61 Fed. Reg. 33,587 (June 27, 1996). In adopting a final rule adding the other categories, EPA in 1997 deferred action on E&P operation pending further study. See "Addition of Facilities in Certain Industry Sectors; . . . Final Rule," 62 Fed. Reg. 23,834, 23,855 (May 1, 1997). EPA included the addition of E&P operations to TRI to its regulatory plan in October 1997 but withdrew the issue from its unified agenda in August 2000, stating, "Agency Plans No Further Action." "TRI; Addition of Oil and Gas Exploration and Production to the Toxic Release Inventory" (The Regulatory Plan), 62 Fed. Reg. 57,149 (Oct. 29, 1997); "TRI; Addition of Oil and Gas Exploration and Production to the Toxic Release Inventory" (Unified Agenda), 65 Fed. Reg. 74,587 (Nov. 30, 2000).

[6] EPA's Chemical Emergency Preparedness and Prevention Office maintains a list of SERC contacts on its website (http://www.epa.gov/swercepp/serclist.htm).

[7] EPA's Chemical Emergency Preparedness and Prevention Office maintains a list of LEPCs on its website (http://www.epa.gov/ceppo/lepclist.htm).

3 Release Reporting Flowcharts

This section provides the user of this document with a simple set of flowcharts for determining when release reporting is required. The first chart is a "master" chart giving an overview. It is followed by flowcharts that provide further detail on each type of report or notification.

Flowcharts address release reporting requirements under the CWA, CERCLA and EPCRA. The CERCLA and EPCRA flowcharts are supplemented by two flowcharts addressing the exemption for federally permitted releases.

Additional flowcharts address EPCRA §§302 notification and EPCRA §§311 and 312 hazardous chemical reporting requirements.

For detailed information not readily available in the flowcharts, the reader should refer to specific sections which address the reporting requirements in more detail.

Appendix A includes a list of common oilfield chemicals with TPQs and RQs. Section 7 contains examples of potential release reporting scenarios.

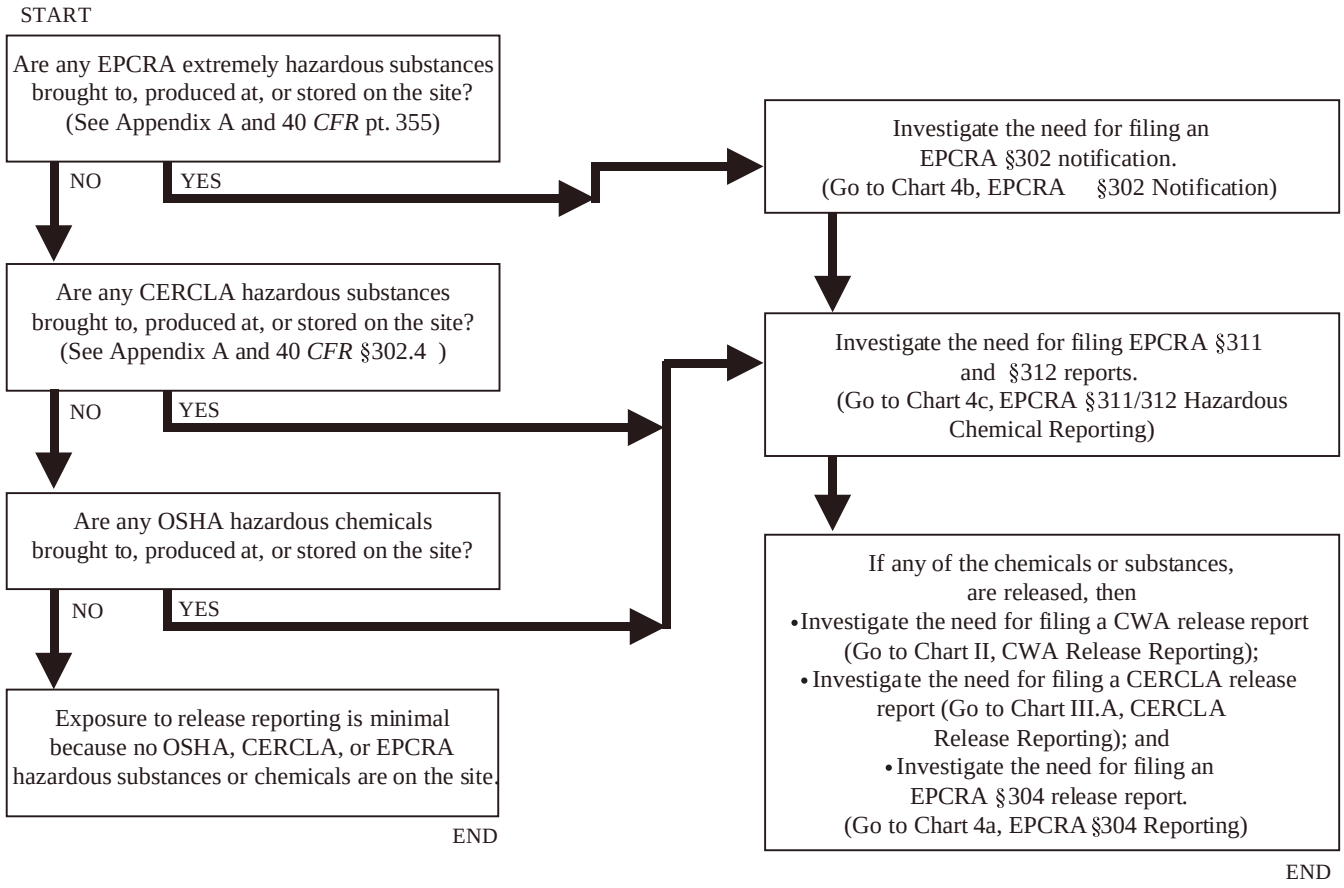


Chart 1—Summary of Release Reporting and Other EPCRA Notification Requirements

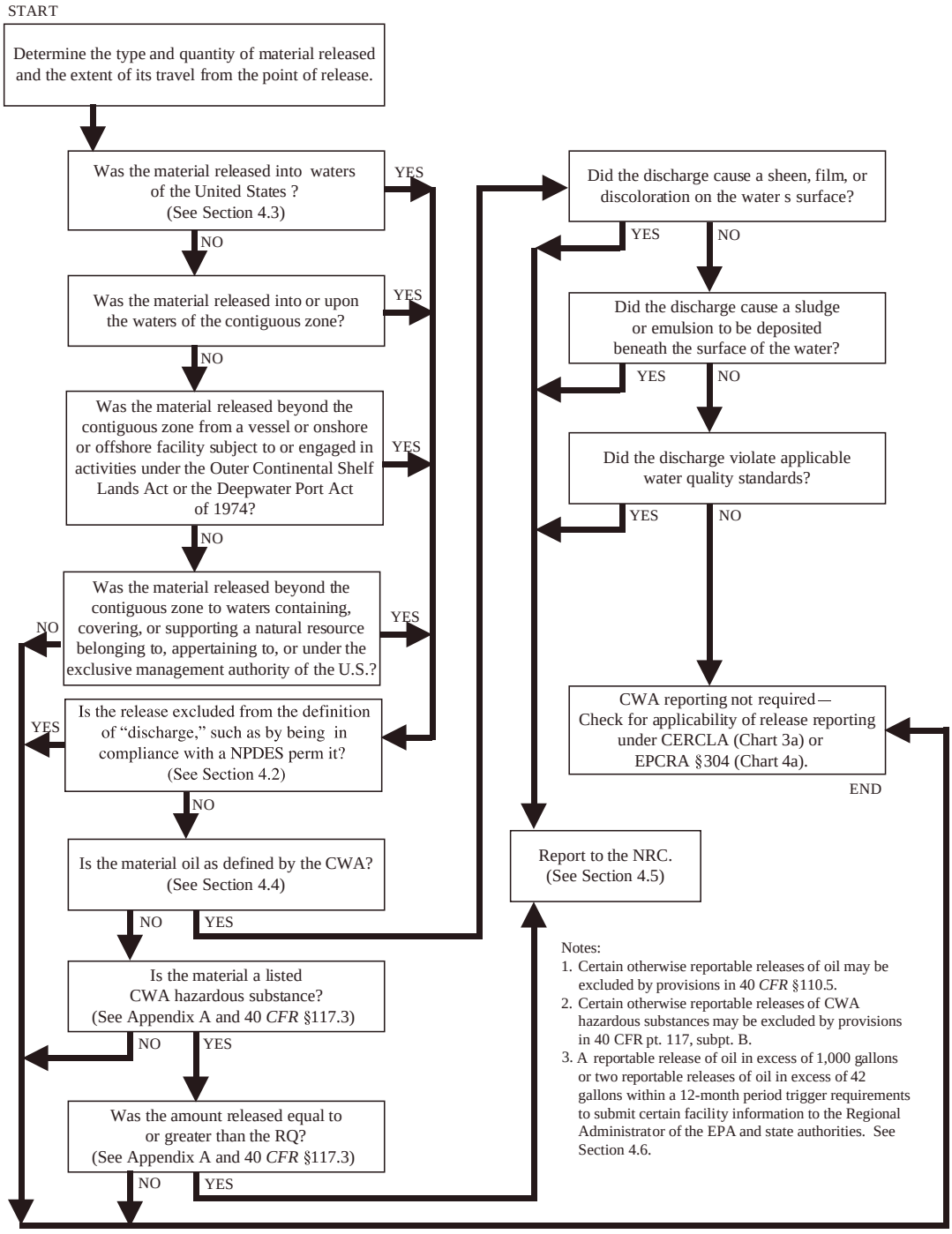
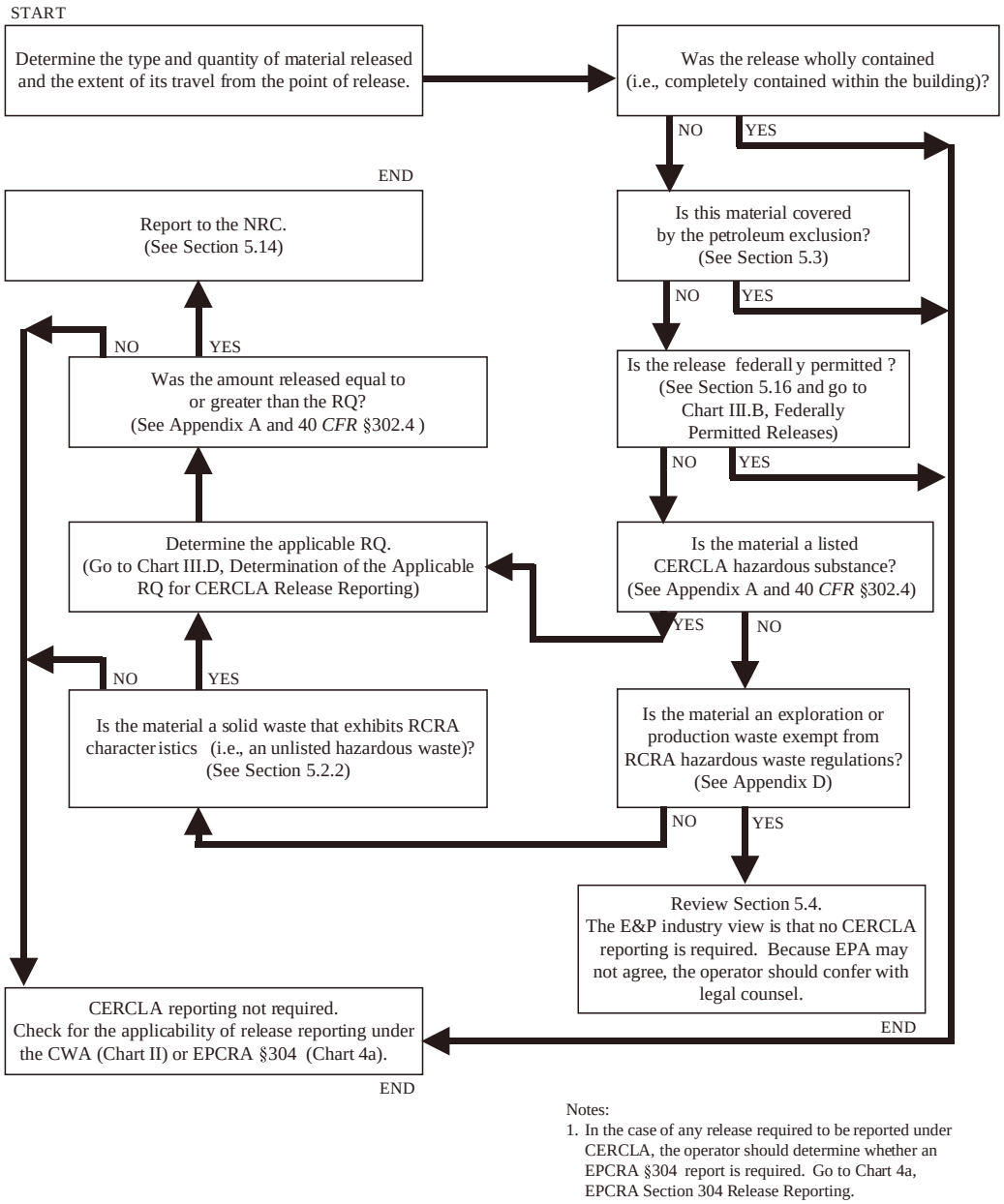


Chart 2—CWA Release Reporting



Notes:
1. In the case of any release required to be reported under CERCLA, the operator should determine whether an EPCRA §304 report is required. Go to Chart 4a, EPCRA Section 304 Release Reporting.

Chart 3a—CERCLA Release Reporting

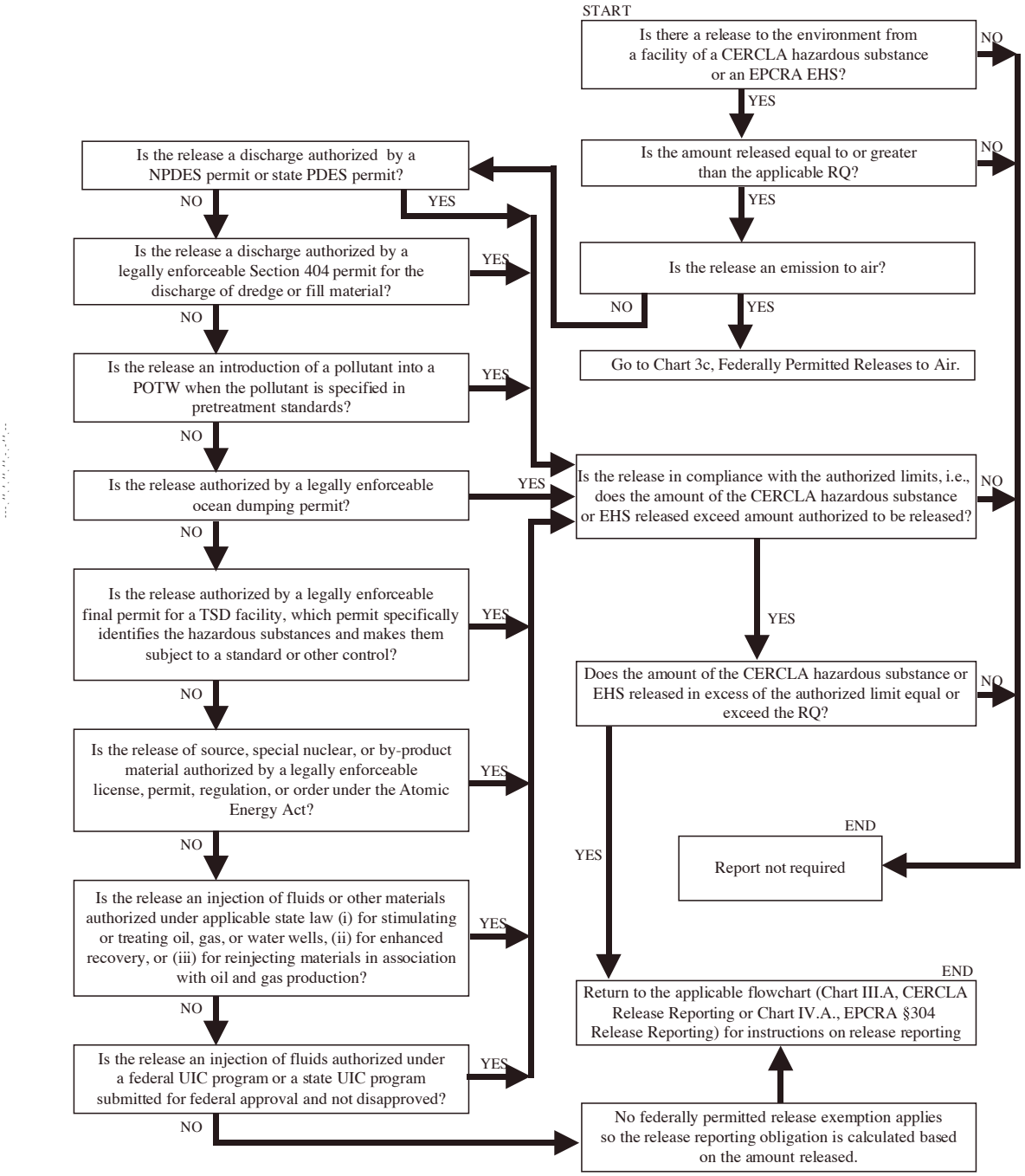


Chart 3b—Federally Permitted Releases

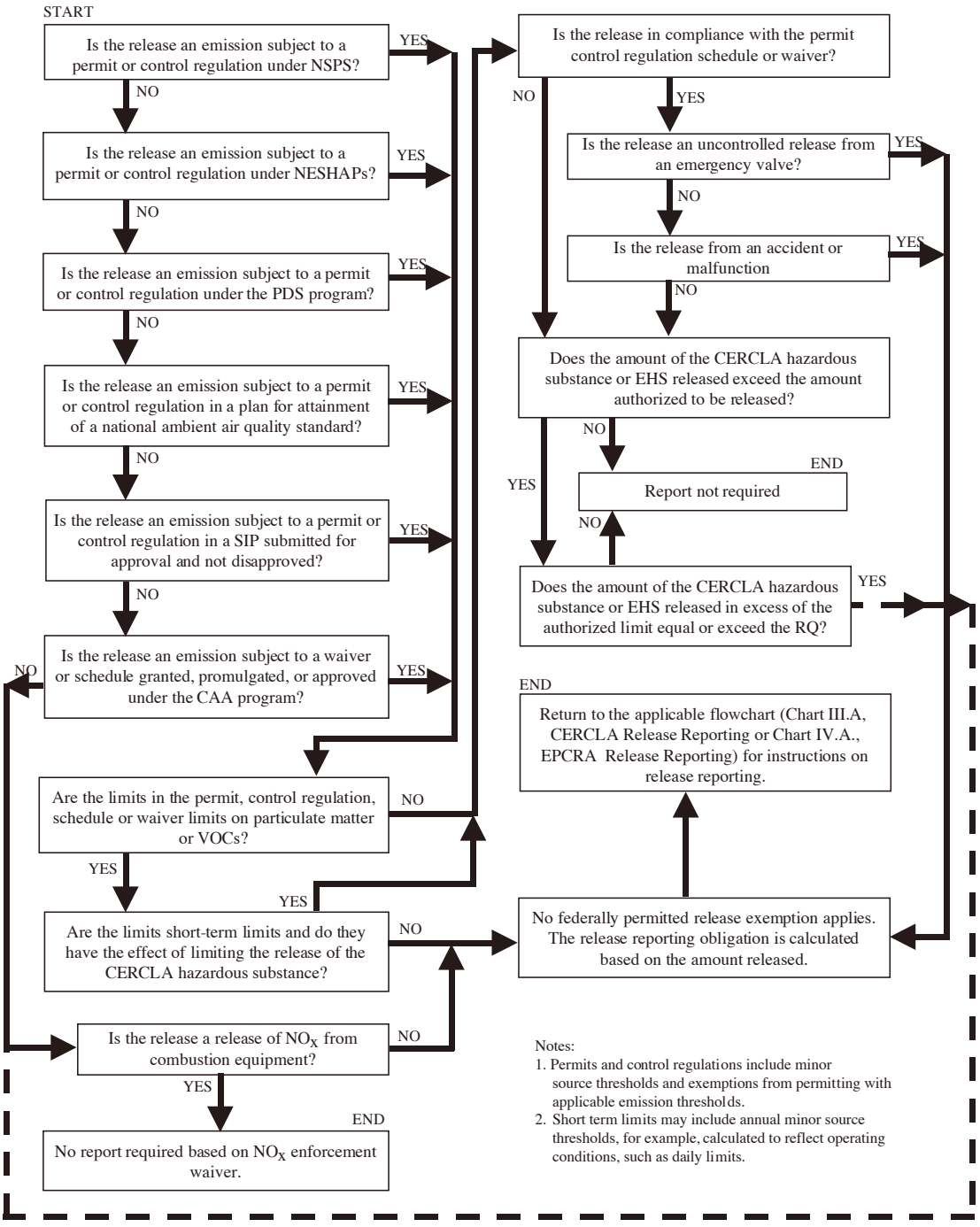


Chart 3c—Federally Permitted Releases to Air

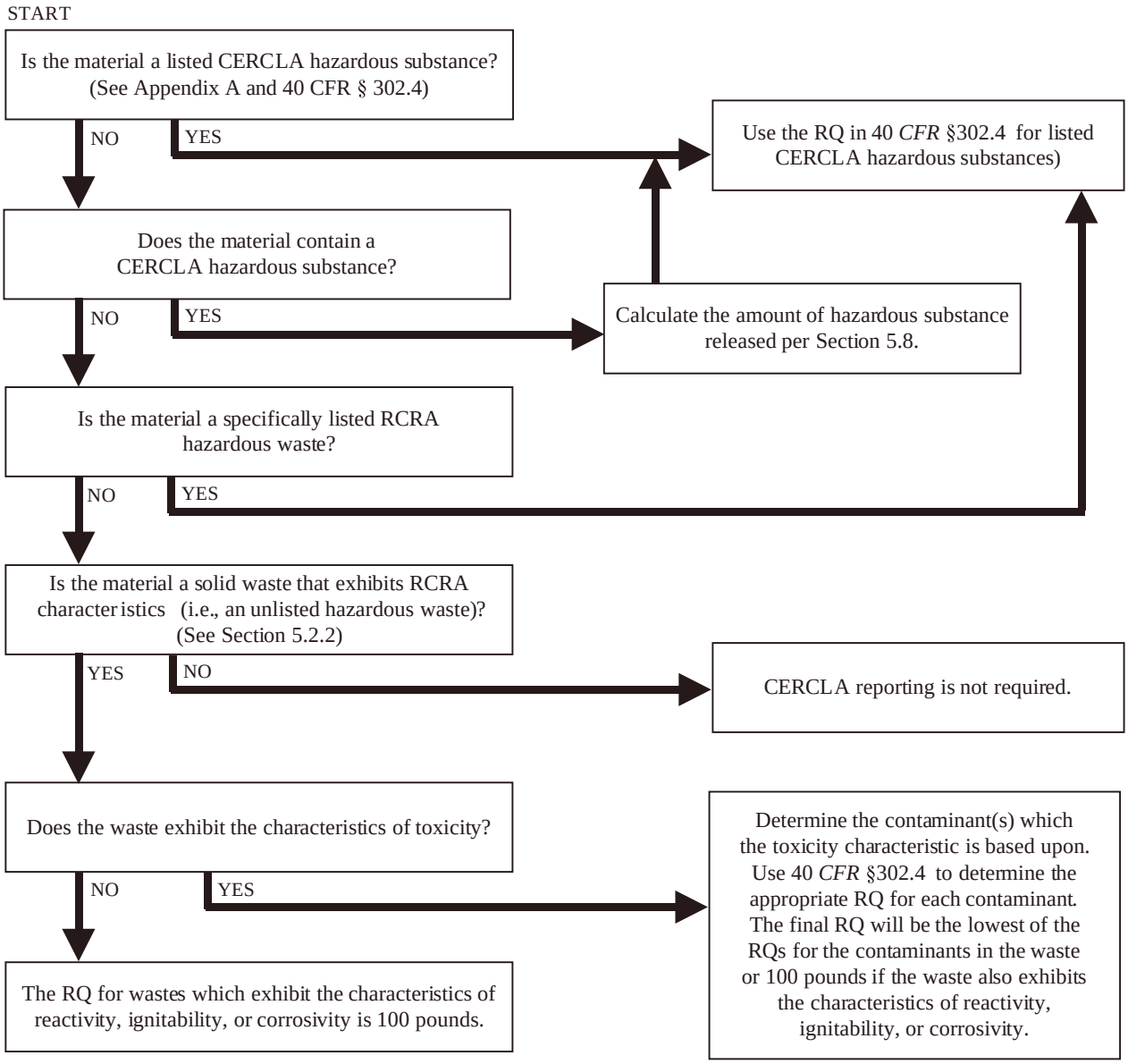


Chart 3d—Determination of Applicable RQ for CERCLA Release Reporting

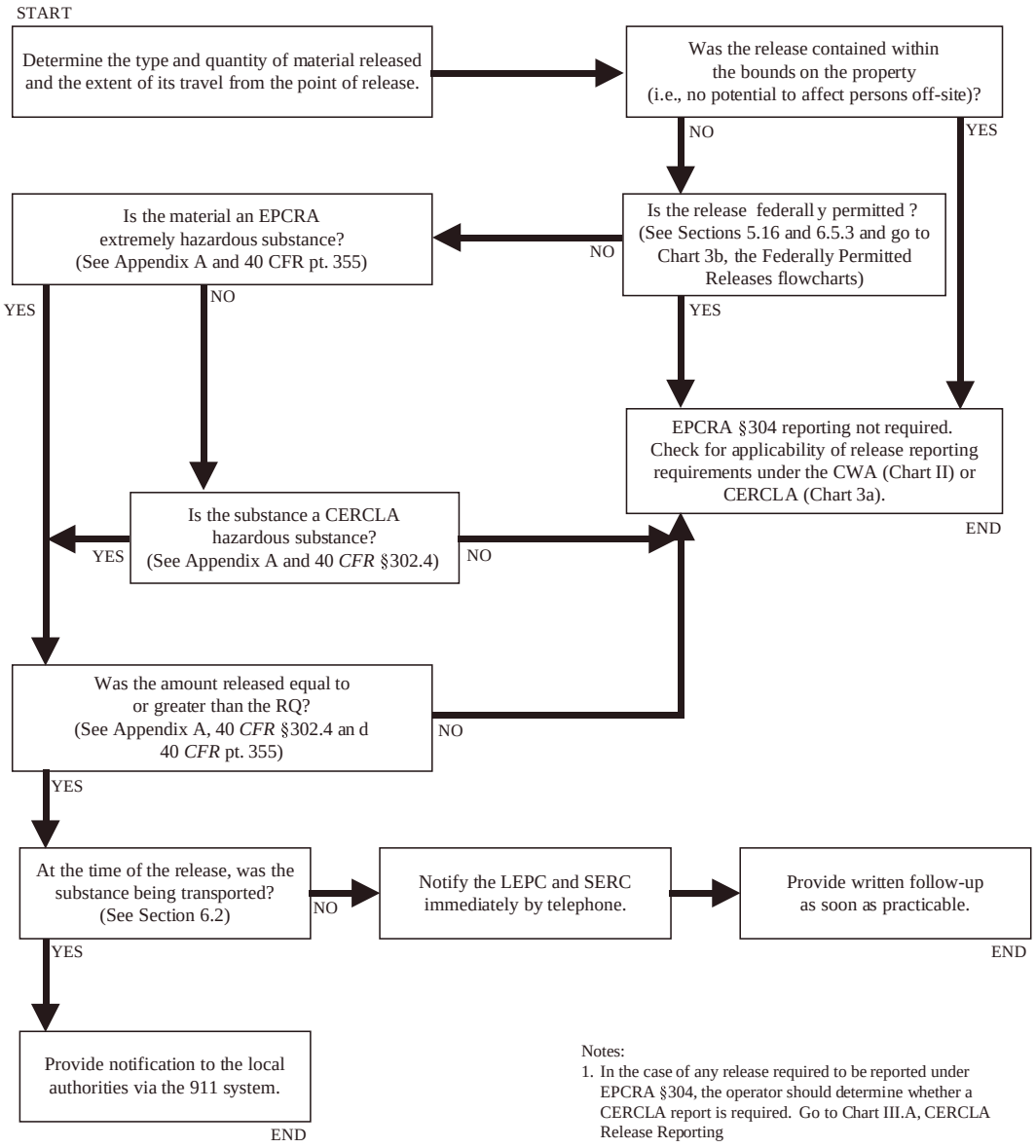


Chart 4a—EPCRA Section 304 Reporting

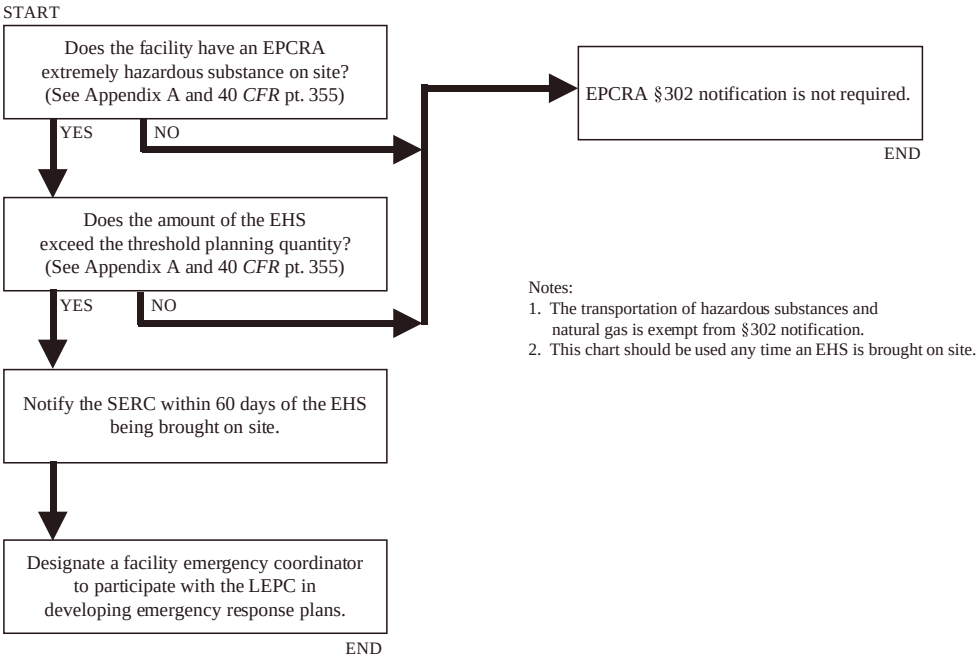


Chart 4b—EPCRA Section 302 Notification

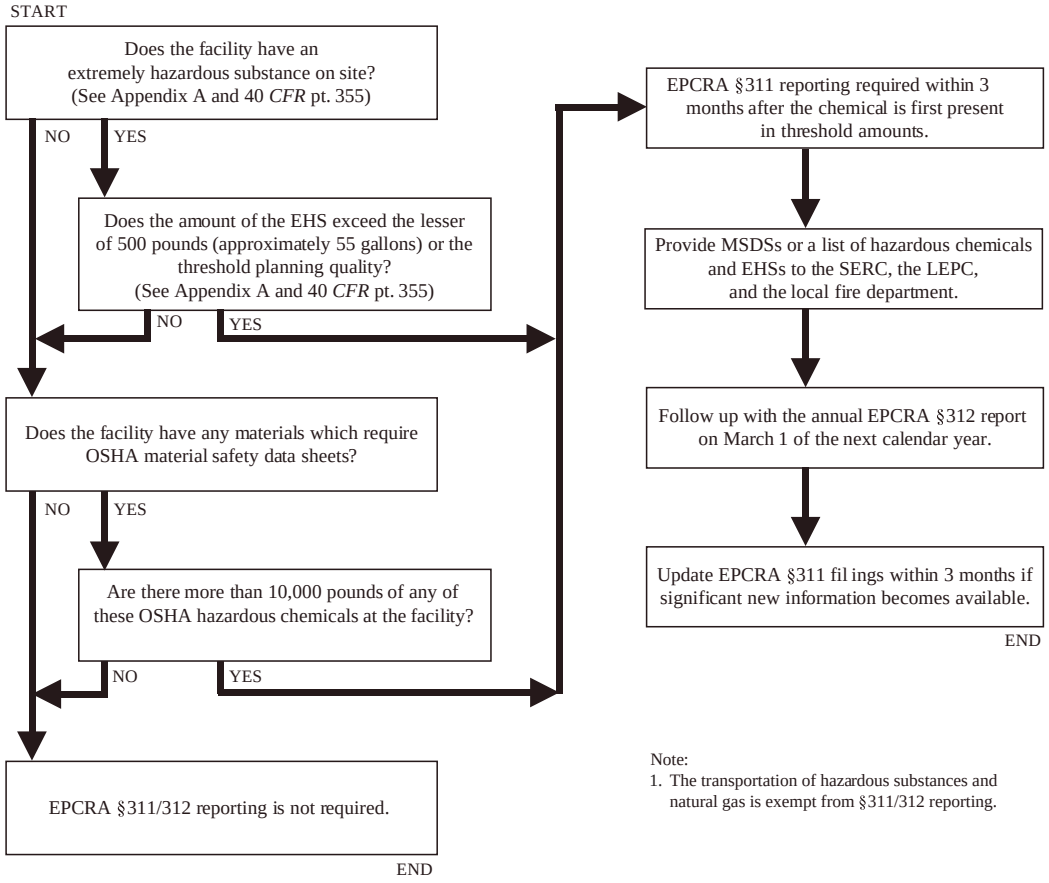


Chart 4c—EPCRA Section 311/312 Hazardous Chemical Reporting

4 Reporting Requirements under the Clean Water Act (CWA)

4.1 GENERAL REQUIREMENTS

The CWA prohibits the discharge of harmful quantities of oil or hazardous substances into or upon the "navigable waters of the United States" and requires immediate notice of a prohibited discharge. CWA §311(b), 42 U.S.C. §1321(b).

The requirement to report prohibited discharges is very similar to the release reporting requirements under CERCLA section 103, 42 U.S.C. §9603. There are, however, some important differences:

- The CWA requires reports only for releases to navigable waters, while CERCLA requires reports of releases to all environmental media—water, air and land.
- The list of hazardous substances reportable under the CWA is considerably smaller than that under CERCLA.
- The CWA requires reports of releases of petroleum, but CERCLA does not.
- CWA regulations include specific exclusions from reporting at 40 *CFR* 117.11(a)-(j) that diverge from the CERCLA exclusions.

4.2 SCOPE OF THE DISCHARGE REPORTING REQUIREMENT

The statute prohibits discharges of oil or hazardous substances into or upon "the navigable waters of the United States [and] adjoining shorelines." The scope of "navigable waters" is outlined below in 4.3.

Also prohibited are:

- discharges into or upon the waters of the contiguous zone; and
- discharges beyond the contiguous zone "in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976)."

CWA §311(b)(1), 33 U.S.C. §1321(b)(1). EPA regulations designating CWA hazardous substances have clarified that the contiguous zone is the zone established under article 24 of the Convention of the Territorial Sea and the Contiguous Zone. The regulations identify other prohibited discharges as those into waters beyond the contiguous zone.

- if the discharge is from a vessel or onshore or offshore facility subject to or engaged in activities under the Outer Continental Shelf LandsAct (43 U.S.C. §1331 et seq.) or the Deepwater PortAct of 1974 (33 U.S.C. §1501 *et seq.*), or
- if the waters contain, cover, or support a natural resource belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and ManagementAct of 1976, 16 U.S.C. §1801 *et seq.*).

See 40 *CFR* §116.3 Discharges to the contiguous zone or beyond the contiguous zone are not prohibited if they are permitted under the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973. CWA §311(b), 33 U.S.C. §1321(b).

Excluded from the definition of "discharge" are:

- discharges in compliance with a National Pollutant Discharge Elimination System (NPDES) permit;
- discharges resulting from circumstances identified and reviewed and made part of the public record issued with respect to an issued or modified NPDES permit, and subject to a condition in the permit;
- continuous or anticipated intermittent discharges from a point source identified in a NPDES permit or permit application that are caused by events occurring within the scope of relevant operating or treatment systems; and
- certain discharges authorized under the National Contingency Plan.

See CWA §311(a)(2), 33 U.S.C. §1321(a)(2).

4.3 DEFINITION OF"NAVIGABLEWATERS OF THE UNITED STATES"

The CWA defines "navigable waters of the United States" as "the waters of the United States, including the territorial seas." CWA §502(7), 33 U.S.C. §1362(7). Until the United States Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*[8] ("SWANCC") in early 2001, judicial decisions generally upheld the interpretations of the agencies administering CWA programs, such as the EPA and the U.S. Army Corps of Engineers (Corps), that expanded the scope of the definition well beyond waters that are navigable in fact.[9] The law regarding the scope of the definition, however, is still evolving, so consultation with legal counsel is advisable in cases of doubt.

[8]531 U.S. 159, 121 S. Ct. 675, 148 L. Ed. 2d 576 (2001).

The EPA regulations implementing the CWA release reporting requirements define the term, "navigable waters of the United States," broadly as including:

- all waters which are presently used, or were used in the past, or may be susceptible to use as a means to transport interstate or foreign commerce, including all waters subject to the ebb and flow of the tide, including adjacent wetlands;
- tributaries of navigable waters, including adjacent wetlands;
- interstate waters, including wetlands; and
- all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats and wetlands, the use, degradation or destruction of which affect interstate commerce including intrastate lakes, rivers, streams, and wetlands with a connection to interstate commerce (recreation, fish or shellfish harvesting, industrial use).

Wetlands include areas inundated or saturated by surface or ground water often enough and for long enough periods to support typical wetlands vegetation. They generally include swamps, marshes, bogs and similar areas, and may include playa lakes, sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds. The definitions in the regulations for reporting discharges of oil and those for reporting releases of hazardous substances are similar but not identical.[10]

Prior to SWANCC, courts had been reasonably consistent in affirming the EPA and the Corps in their treatment of tributaries of navigable waters as regulated "navigable waters of the United States."[11] Many courts also recognized as "navigable" those tributaries that flow only intermittently.[12] Less consistent has been their treatment of groundwater. Some courts have found that a discharge to groundwater is prohibited by the CWA and may require a permit if the groundwater is hydrologically connected to surface waters that are waters of the United States.[13] Others have concluded that groundwater is not waters of the United States.[14]

Several decisions also had recognized so-called "isolated" wetlands—that is, wetlands not adjacent to a navigable waterway or to a tributary of a navigable waterway—as "navigable waters of the United States." SWANCC changed the treatment of some "isolated" wetlands as "navigable waters of the United States." In that decision, the Supreme Court overruled the Corps of Engineers'"migratory bird rule" under which the Corps treated some wetlands not connected to navigable waters as subject to Corps jurisdiction under the CWA because migratory birds used the wetlands as habitat.

The EPA and the Corps on January 10, 2002, issued a joint advance notice of proposed rulemaking to solicit comments on revision of their regulations in light of SWANCC. With the notice, the agencies also issued a joint memorandum announcing how they will interpret their jurisdiction pending a rule revision. The memorandum advises that the agencies will not assert jurisdiction over isolated waters that are both intrastate and non-navigable, where the only basis for asserting jurisdiction is the waters use (i) as habitat for birds protected by Migratory Bird Treaties, (ii) as habitat for federally protected endangered or threatened species, or (iii) to irrigate crops sold in interstate commerce. EPA and Corps field staff are advised to seek formal, project-specific headquarters approval before asserting jurisdiction over such isolated waters based on their use by interstate or foreign travelers for recreational or other purposes; the presence of fish or shellfish that could be taken and sold in interstate commerce; or use of the water

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[9] See *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 133, 106 S.Ct. 455, 462, 88 L. Ed. 2d 419 (1985) (holding that wetlands adjacent to "navigable waterway" are "navigable waters of the United States").

[10] For example, regulations designating hazardous substances define adjacent as "bordering, contiguous or neighboring." See 40 *CFR* §116.3. The oil discharge and hazardous substance discharge regulations exclude prior converted cropland and waste treatment ponds (other than cooling ponds) from the definition of navigable waters. See 40 *CFR* §§110.1 and 117.1. The Part 110 regulations address the discharge of oil, the Part 116 regulations designate hazardous substances, and the Part 117 regulations set reportable quantities and require reports of releases of hazardous substances.

[11] See, e.g., *Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526, 533 (9th Cir. 2001) ("*Headwaters*") (holding that irrigation canals connected to streams that flow to navigable waters are "waters of the United States"); *Aiello v. Brookhaven*, 136 F. Supp. 2d 81, 119 (E.D.N.Y. 2001) (tributaries of navigable waters that are not themselves navigable in fact are "waters of the United States").

[12] See *Headwaters*, 243 F.3d at 534 (tributaries with only intermittent flow are "waters of the United States"); and *Quivira Min. Co. v. U.S.E.P.A.*, 765 F.2d 126, 130 (10th Cir. 1985) ("*Quivira*") (affirming EPA authority to require National Pollutant Discharge Elimination System Permits for discharges to dry arroyos which channel rainfall to navigable waters during heavy rainfall).

[13] See *Quivira*, 765 F.2d at 130; *Williams Pipe Line Co. v. Bayer Corp.*, 964 F. Supp. 1300, 1319-20 (S.D. Iowa 1997) (finding release from oil pipeline tanks to groundwater a prohibited release to waters of the United States); *Friends of Santa Fe County v. LAC Minerals, Inc.*, 892 F. Supp. 1333, 1357-58 (D. N. Mex. 1995) (groundwater connected to surface water is within the scope of the CWA); *In McClellan Ecological Seepage Situation (MESS) v. Weinberger*, 707 F. Supp. 1185, 1196 (E.D. Cal. 1988) (holding that discharge to groundwater connected to surface water may require a CWA permit), *vacated on other grounds*, 47 F. 3d 325 (9th Cir. 1995); and *Idaho Rural Council v. Bosma*, 143 F. Supp. 2d 1169, 1180 (D. Idaho 2000). The EPA, in the preamble to the July 17, 2002, regulation revising Spill Prevention Control and Countermeasures Plan regulations, stated, "EPA agrees...that groundwater underlying a facility that is directly connected hydrologically to navigable waters could trigger the requirement to produce an SPCC Plan based on geographical or locational aspects of the facility." "Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities; Final Rule," 67 Fed. Reg. 47,042, 47,062 (July 17, 2002) (codified at 40 *CFR* pt. 112) (SPCC Plan Rule).

[14] See *Town of Norfolk v. U.S. Army Corps of Engineers*, 968 F.2d 1438 (1st Cir. 1992); *Village of Oconomowoc v. Dayton Hudson Corp.*, 24 F. 3d 962, 965 (7th Cir. 1994) (affirming that storm water retention pond does not require a discharge permit for water percolating to groundwater); *Kelley v. United States*, 618 F. Supp 1103, 1105-07 (W.D. Mich. 1985) (dismissing CWA claims that a release to groundwater eventually migrate into navigable waters); and *U.S. v. GAF Corp.*, 389 F. Supp. 1379 (S.D. Tex. 1975).

for industrial purposes by industries in interstate commerce. The memorandum instructs field staff to continue to assert jurisdiction over "traditional navigable waters (and adjacent wetlands) and, generally speaking, their tributary systems (and adjacent wetlands)."[15]

Although the joint EPA and Corps memorandum adopts a relatively conservative interpretation of the impact of SWANCC, the advance notice of proposed rulemaking raises the possibility that a revised definition of "waters of the United States" could further narrow the scope of the agencies' reach. Because of the unsettled nature of the law in this area, a facility operator should consult legal counsel when in doubt of the treatment of a wetland or water body.

4.4 DEFINITION OF "HAZARDOUS SUBSTANCE" AND "HARMFUL QUANTITY"

The term "hazardous substance" is defined as any substance designated by the EPA pursuant to CWA section 311(b)(2). CWA hazardous substances are substances other than oil that present an imminent and substantial danger to the public health or welfare, including danger to fish, shellfish, wildlife, shoreline and beaches, or federal natural resources. A list of hazardous substances is published at 40 *CFR* Section 116.4.[16] All CWA hazardous substances are also CERCLA hazardous substances, but not all CERCLA hazardous substances are on the CWA list. Harmful quantities of hazardous substances, RQs, are listed in 40 *CFR* §117.3.

Oil is broadly defined by statute to mean oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. CWA §311(a)(1), 33 U.S.C. §1321(a)(1). The definition in the July 17, 2002, Spill Prevention Control and Countermeasures Plan (SPCC Plan) regulations is similarly broad and includes synthetic oils and mineral oils, as well as vegetable oils and fats, oil, or grease of animal origin.[17]

EPA regulations at 40 *CFR* §110.3 specify that harmful quantities of oil that have to be reported when released to waters of the United States include:

- a discharge that violates applicable water quality standards;
- a discharge that causes a sheen, film, or discoloration on the water's surface; or
- a discharge that causes a sludge or emulsion to be deposited beneath the surface of the water.

4.5 PROCEDURES FOR REPORTING TO THE NRC

The procedure for reporting CWA discharges is found in U.S. Coast Guard Regulations at 33 *CFR* §153.203. The regulations require the person in charge, as soon as he has knowledge of any reportable discharge of oil or a hazardous substance, to notify the NRC immediately. The telephone number is (800) 424-8802 or (202) 267-2675 in theWashington, D.C., metropolitan area.

If direct reporting by telephone is not practicable, the report may be made to the Coast Guard or the EPA-designated on-scene-coordinator (OSC) for the region where the discharge occurs. If immediate notice to the OSC or NRC is not possible, the report should be made to the nearest Coast Guard unit, with follow-up notice to the NRC as soon as possible.Appendix C contains tables listing the addresses and telephone numbers of the Coast Guard District offices and EPA regional offices.

Although the regulations still require telephone reporting under most circumstances, the NRC website at http://www.nrc.uscg.mil/index.htm includes online reporting forms for different categories of releases, such as continuous releases and releases from offshore platforms, vessels, storage tanks, fixed onshore facilities and mobile sources. Because the regulations do not specifically authorize online reporting, any incident reported to the NRC online also should be reported to the NRC by telephone.

Appendix B includes additional information on reporting, including an outline of the kinds of information the NRC will request.

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[15] "Advance Notice of Proposed Rulemaking on the Clean Water Act Regulatory Definition of 'Waters of the United States,'" 68 Fed. Reg. 1,991 (Jan. 15, 2003). The joint EPA and Corps memorandum includes an exhaustive summary of court decisions following SWANCC. As the memorandum notes, some lower courts have interpreted SWANCC's effect as limited to overruling the migratory bird rule. See, *e.g.*, *United States v. Interstate General Co.*, 152 F. Supp. 2d 843, 847 (D. Md. 2001) aff'd, 2002 WL 1421411 (4th Cir. 2002) (refusing to reverse, based on SWANCC, a conviction for filling without a permit wetlands that were adjacent to tributaries of navigable interstate waters); and *United States v. Buday*, 138 F. Supp. 2d 1282, 1292 (D. Mont. 2001) (tributaries and adjacent wetlands deemed waters of the United States based on impacts to those waters having the potential to harm interstate navigable waters). Other courts have interpreted statements in the decision that did not address the specific, narrow circumstances before the Court as having a broader effect on the jurisdiction of the EPA and the Corps under the CWA. Courts holding that SWANCC has a broad impact on the agencies' jurisdiction would require the agencies to demonstrate some substantial connection to navigability before they can treat isolated intrastate waters as "navigable waters" subject to CWA jurisdiction. See *United States v. Krilich*, 152 F. Supp. 2d 983, 988 (2001) (suggesting that unless wetlands are connected to waters that are navigable in fact, they must have a substantial connection to interstate commerce to be "navigable waters").

[16] The EPA also makes available online at http://yosemite.epa.gov/oswer/ceppoweb.nsf/index.html a "list of lists," that includes CERCLA hazardous substances listed as of October 2001. Follow the links for tools and resources, then to the site offering EPA databases and software. Specifically, the site is http://yosemite.epa.gov./oswer/ceppoweb.nsf/vwresourcesbyfilename/title3.pdf/$file/title3.pdf

[17] See SPCC Plan Rule, 67 Fed. Reg. at 47,142, 40 *CFR* §112.2. The definition of "petroleum oil" in the SPCC Plan rule is "petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products." SPCC Plan Rule, 67 Fed. Reg. at 47,143.

4.6 PROCEDURES FOR REPORTING TO THE REGIONAL ADMINISTRATOR OF THE EPA

Regulations requiring onshore and offshore facility operators to develop and implement Spill Prevention Control, and Countermeasure Plans (SPCC Plans) for facilities that could experience a reportable release of oil also require affected facility operators to notify the EPA RegionalAdministrator of certain reportable releases of oil. If a facility required to maintain a SPCC Plan has a reportable discharge of more than 1,000 gallons of oil in a single discharge, or two discharges of more than 42 gallons of oil during any twelve-month period, the facility must submit the following information to the RegionalAdministrator within 60 days of triggering the reporting requirement:

- the name of the facility;
- the owner's or operator's name;
- the location of the facility;
- the maximum storage or handling capacity of the facility and its normal daily throughput;
- corrective action and countermeasures taken, including a description of equipment repairs and replacements;
- an adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- the cause of the discharge(s), including a failure analysis of the system or subsystem in which the failure occurred;
- additional preventive measure taken or contemplated to minimize the possibility of recurrence; and
- other information the RegionalAdministrator may reasonably require pertinent to the SPCC Plan or discharge(s).[18]

The facility must submit the same information to the agency or agencies in charge of oil pollution control activities in the state in which the facility is located. The EPA Regional Administrator may require the facility to amend its SPCC Plan based on the information submitted and recommendations from the state regulators regarding additional measures to prevent and contain discharges.[19]

4.7 ENFORCEMENT

An operator may be subject to a civil penalty for the release of oil of $25,000 per day of violation or $1,000 per barrel of oil or unit of hazardous substances discharged. CWA §311(b)(6)-(7), 33 U.S.C. §1321(b)(6)-(7). Failure to provide the required notification of a reportable discharge of oil or a hazardous substance is punishable by criminal penalties, including fines, imprisonment for not more than 5 years, or both. CWA §311(b)(5), 33 U.S.C. §1321(b)(5).

5 Reporting Requirements under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

5.1 GENERAL REQUIREMENTS

CERCLA establishes a program of notification requirements for releases of "hazardous substances." CERCLA requires the EPA to establish RQs for releases of hazardous substances as defined by section 101(14) of Superfund. CERCLA §102, 42 U.S.C. §9602. CERCLA, like the CWA, requires notice of reportable releases to the NRC. CERCLA §103(a), 42 U.S.C. §9603(a). The statute exempts certain releases from notification, establishes penalties for failure to notify, and authorizes the EPA to establish recordkeeping requirements.

5.2 DEFINITION OF HAZARDOUS SUBSTANCE

CERCLA defines "hazardous substance" by reference to five environmental statutes:

- any element, compound, mixture, solution or substance designated as a "hazardous substance by EPA under CERCLA, §102 42 U.S.C. §9602;
- any substance designated as a toxic pollutant under CWA §307(a) or as a hazardous substance under CWA §311(b)(2)(A), 42 U.S.C. §§1317(a) and 1321(b)(2)(A);
- any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste DisposalAct (but not including any waste the regulation of which has been suspended byAct of Congress), 42 U.S.C. §6921;

[18] See SPCC Plan Rule, 67 Fed. Reg. at 47,144, 40 *CFR* §112.4(a). The reporting requirement does not apply until the time has expired for initial preparation and implementation of the SPCC Plan. See SPCC Plan Rule, 67 Fed. Reg. at 47,144, 40 *CFR* §112.4(b). Under the new SPCC Plan Rule, as amendedApril 17, 2003, a facility that becomes operational afterAugust 16, 2002, through February 18, 2005, and could reasonably be expected to have a discharge, must prepare and implement a plan no later than February 18, 2005. Facilities first becoming operational after February 18, 2005, must prepare and implement a plan before they begin operations. See "Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities; Final Rule," 68 Fed. Reg. 18,890, 18,894 (Apr. 17, 2003) (codified at 40 *CFR* §112.3(a)-(b)).

[19] See SPCC Plan Rule, 67 Fed. Reg. at 47,144, 40 *CFR* §112.4(c)-(d).

- any hazardous air pollutant listed under section 112 of the Clean Air Act (CAA), 42 U.S.C. §7412; and
- any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2606.

The CERCLA definition of hazardous substance specifically excludes petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed as a hazardous substance under the cited provisions of those five statutes. Also excluded are natural gas, natural gas liquids, and mixtures of natural gas or synthetic gas. CERCLA §101(14), 42 U.S.C. §9601(14). The CERCLA "petroleum exclusion" is discussed in 5.3.

5.2.1 Listed CERCLA Hazardous Substances

EPA regulations list CERCLA hazardous substances at 40 *CFR* §302.4 in Table 302.4. Chemicals are listed by name, and an appendix to the list provides a cross reference to the chemical names from a list of hazardous substances arranged sequentially by Chemical Abstracts Service (CAS) Registry Number. Where relevant, the list identifies the hazardous waste identification number for the chemical and lists the RQ for each substance.

The CERCLA hazardous substance list includes some generic or broad classes of chemicals, such as zinc compounds, for which EPA has not assigned an RQ. CERCLA states that until a regulation establishes a different reportable quantity for a hazardous substance, the RQ shall be 1 pound. EPA, however, has not applied that default RQ to broad classes of comlbs. EPA to date has determined that notification requirements apply only to the specific compounds for which RQs are established in 40 *CFR* §302.4. Although EPA has not applied the notification requirements to those broad classes of CERCLA hazardous substances, EPA has stated that the owner or operator of a vessel or facility that releases any hazardous substance falling within the broad category, regardless of whether an RQ listing in Table 302.4 requires notification of that release, is liable for cleaning up the release.[20]

A consolidated "list of lists," that includes the CERCLA hazardous substances listed as of October 2001, is available online from EPA's Chemical Emergency Preparedness and Prevention Office (http://yosemite.epa.gov/oswer/ceppoweb.nsf/index.html) by following the links for databases and software to the site offering EPA databases and software.

5.2.2 "Unlisted" CERCLA Hazardous Substances

The CERCLA reporting obligations also apply to the so-called "unlisted" hazardous substances, which are the so-called "characteristic" hazardous wastes under the Resource Conservation and Recovery Act (RCRA). Characteristic wastes are those that exhibit the "characteristics" of either toxicity, reactivity, ignitability, or corrosivity and that are not excluded from regulation as a hazardous waste under 40 *CFR* §261.4(b).[21] Note that a characteristic substance must be a "waste" in order to be an "unlisted hazardous substance." If an unlisted hazardous substance that exhibits a RCRA "characteristic" is spilled and immediately cleaned up for repackaging, reprocessing, recycling or reuse, it is not a waste and, therefore, the facility operator does not need to report the spill as a CERCLA "release." This assumes that no release to the environment of an RQ occurs from evaporation or from material left on the ground or in the water.[22] An example of such an incident would be a spill of a pelletized chemical that is completely picked up, creating no waste.

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[20] In 1985, EPA determined that it would not apply the notification requirements to the broad classes of compounds listed as "hazardous substances" because of their designation as toxic pollutants under section 307(a) of the CWA. See "Notification Requirements, Reportable Quantity Adjustments," 50 Fed. Reg. 13,456, 13,460 (April 4, 1985) ("Reportable Quantity Rule"). EPA made a similar determination for treating the categories of chemicals newly listed by the Clean Air Act Amendments of 1990, deciding that it would not assign an RQ to the category of compounds but would identify specific compounds within the categories and assign RQs to them. See "Reportable Quantity Adjustment," 60 Fed. Reg. 30,926, 30,933 (June 12, 1995). Butsee, "National Emission Standards for Hazardous Air Pollutants for Source Categories: Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks," 62 Fed. Reg. 2,722, 2,725 (Jan. 17, 1997). The preamble to the rule clarification, in responding to a comment regarding the impact of listing 21 specific organic hazardous air pollutants within the standard for controlling hazardous air pollutants in the synthetic organic chemical manufacturing industry, asserts that the 1 pound RQ applies to all compounds within the category. The statement in the 1997 notice cites the 1995 notice as authority for a policy that is in conflict with the interpretation in the 1995 notice and, therefore, appears to be an error. In cases of doubt, the facility operator should consult legal counsel.

[21] See "Superfund Programs; Reportable Quantity Adjustments; Final Rule," 51 Fed. Reg. 34,534, 34,539 (Sept. 29, 1986) (clarifying that the 100 pound RQ for release of characteristic ignitable, corrosive, or reactive hazardous wastes, so-called "ICR substances," applies not just to ICR substances which are wastes before their release, but also to ICR substances "which become wastes only after their release") ("ICR Clarification Notice").

[22] ICR Clarification Notice, 51 Fed. Reg. at 34,539 ("For purposes of clarification, if an ICR substance which is not a waste prior to release is released and only partially cleaned up, the release need not be reported only if the amount not recovered equals or exceeds an RQ, i.e., 100 lbs. If the amount spilled and not recovered (or recovered only for eventual disposal) is less than 100 pounds, there has been no release of an RQ or more of a hazardous substance and the reporting requirements of section 103, therefore, are not triggered.")

5.3 PETROLEUM EXCLUSION

The CERCLA definition of hazardous substance excludes petroleum, including natural gas, crude oil, or any fraction thereof, that is not specifically listed or designated by one of the five environmental statutes referred to in the statutory definition of hazardous substance.

Guidance on the scope of the exclusion is available from several internal EPA memoranda, as well as court decisions. For example, a July 31, 1987, General Counsel's opinion, still available on EPA's website, interprets the hazardous substance definition in CERCLA to "exclude from CERCLA response and liability, crude oil and fractions of crude oil, including the hazardous substances, such as benzene, which are indigenous in these petroleum substances," and "hazardous substances which are normally mixed with or added to crude oil or crude oil fractions during the refining process." The opinion also states that the term petroleum does not include hazardous substances "which are added to petroleum or which increase in concentration solely as a result of contamination of petroleum during uses."[23] Current EPA guidance, offered in question and answer format on the EPA website, offers the same guidance.[24]

Court decisions confirm the EPA's approach. Fractions of crude oil and additives mixed with petroleum during the normal process of refining, even if listed as hazardous substances, do not prevent exclusion from liability.[25] However, results may vary in the case of used petroleum products and wastes, and consulting legal counsel in cases of doubt is advisable.[26]

5.4 EXPLORATION AND PRODUCTIONWASTE EXEMPTION

The CERCLA definition of hazardous substance includes RCRA hazardous wastes but excludes "any waste the regulation of which under the Solid Waste Disposal Act [SWDA or RCRA] has been suspended by Act of Congress." CERCLA §101(14), 42 U.S.C. §9601 (14). Under RCRA, drilling fluids, produced water, and other wastes associated with the exploration, development, or production of crude oil or natural gas (E&P wastes) are exempt from regulation as hazardous waste. A list of both exempt and non-exempt E&P wastes is contained in Appendix D. In legislative history clarifying the definition of hazardous substances under CERCLA, Congress stated that the exclusion for E&P wastes applies "notwithstanding the presence in such substance of any hazardous or toxic chemical."[27] The oil and gas industry, therefore, considers RCRA-exempt E&P wastes as excluded from the definition of CERCLA hazardous substance.

EPA has not always treated RCRA-exempt E&P wastes as excluded from the definition of CERCLA hazardous substance; however, compelling arguments exist that EPA misreads CERCLA by treating RCRA-exempt E&P wastes as hazardous substances if they contain hazardous substance constituents. EPA's interpretation relies on court decisions that concluded that *mining wastes* that are exempt from RCRA are not excluded from the definition of CERCLA hazardous substance if they contain constituents otherwise listed as hazardous substances.[28] No judicial decision, however, has ruled on the issue of the exclusion of RCRA-exempt E&P wastes from CERCLA's definition of hazardous substances.[29] Because RCRA-exempt E&P wastes, are clearly distinguishable from mining wastes, precedents for treatment of mining wastes should not apply to RCRA-exempt E&P wastes.[30] RCRA-exempt E&P wastes are subject to a specific exemption in RCRA, while mining wastes are listed as special study wastes

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[23] Memorandum from Francis S. Blake, EPA General Counsel, to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, Scope of the CERCLA Petroleum Exclusion under section 101(14) and 101(a)(2) (July 31, 1987), available on EPA's website at (http://www.epa.gov/Compliance/resources/policies/cleanup/superfund/petro-exclu-mem.pdf).

[24] See "Petroleum Exclusion, Frequently Asked Questions," on EPA's website at (http://www.epa.gov/superfund/programs/er/triggers/haztrigs/whatsub3.htm).

[25] See *Washington v. Time Oil Co.*, 687 F. Supp. 529, 532 (W.D. Wash. 1988) (denying exclusion when contaminants are present "in excess of amounts that would have occurred in petroleum during the oil refining process") and *Wilshire Westwood Assocs. v. Atlantic Richfield Corp.*, 881 F.2d 801, 803-05 (9th Cir. 1989) (presence of hazardous substance additives in leaded gasoline does not prevent operation of petroleum exclusion). See also *Organic Chemical Site PRP Group v. Total Petroleum, Inc.*, 58 F. Supp. 2d 755, 763-64 (W.D. Mich. 1999) (holding that concentration of polynuclear aromatic hydrocarbons at Superfund site that is higher than concentration in petroleum products does not prevent operation of petroleum exclusion if the increased concentration is consistent with that from volatilization and biodegradation of products over time).

[26] See, *e.g., New York v. Exxon Corp.*, 766 F. Supp. 177, 187 (S.D.N.Y 1990) (finding that used oil contaminated with hazardous substances is not within the scope of the petroleum exclusion); but see, *Southern Pacific Transp. Co. v. California*, 790 F. Supp. 983, 985-86 (C.D. Cal. 1991) (holding that used petroleum products are covered, provided that CERCLA-listed hazardous substances have not been added to the petroleum product during its use). See also *Tosco Corp. v. Koch Indus., Inc.*, 216 F.3d 886, 893-94 (10th Cir. 2000) (holding that petroleum exclusion does not apply to released petroleum that has commingled in the soil and groundwater with hazardous wastes); and *Cose v. Getty Oil Co.*, 4F.3d 700, 708-09 (9th Cir. 1993) (holding that waste crude oil tank bottoms are not "petroleum" within the scope of the petroleum exclusion).

[27] The statement comes from the Senate Report accompanying S. 1480, where the CERCLA hazardous substance definition originated. S. Rep. No. 848, 96th Cong., 2d Sess. 28 (1980). The Report also states: "Thus, drilling muds and brines which have been excluded by regulation are not hazardous substances under S. 1480." *Id.*

[28] See, e.g., *Eagle-Picher Indus. v. EPA*, 759 F.2d 922, 930-31 (D.C.Cir. 1985).

[29] *Nixon-Egli Equip. Co. v. John A. Alexander Co.*, 949 F. Supp. 1435, 1444 n.7 (C.D. Cal. 1996), concludes, based on *Cose v. Getty Oil Co.*, that drilling by-products and drilling would not fall within the petroleum exclusion, a separate issue.

along with coal combustion and cement kiln dust wastes.[31] Any question regarding exclusion of exempt E&P wastes from the definition of CERCLA hazardous substances should be referred to legal counsel.

5.5 DEFINITION OF REPORTABLE QUANTITY

A key premise of CERCLA notification is that notification is required only when there is a release of a hazardous substance in an amount equal to or greater than the reportable quantity for that substance.

EPA has established five levels of RQs: 1, 10, 100, 1,000, or 5,000 lbs. Note that EPA decided not to develop separate RQs for each hazardous substance for each of the various environmental media into which a release might occur. EPA instead chose one RQ for each hazardous substance. For example, the RQs for NO and NO_2, 10 each pounds in a 24-hour period, were established based on releases to water and releases to the soil or groundwater, not releases to air.[32] As a result, the RQ for releases of NO and NO_2 to air are lower than warranted for such releases. Until the EPA establishes an RQ for a hazardous substance, the RQ is 1 pound. CERCLA §102(b), 42 U.S.C. §9602(b).

The RQs for listed hazardous substances can be found at 40 *CFR* §302.4, in Table 302.4, and in EPA's List of Lists.[33] The reader using either the online List of Lists or Table 302.4 must consult Federal Register notices for revisions after the document's date of publication.

"Unlisted" hazardous wastes displaying the characteristics of ignitability, corrosivity, or reactivity[34] are assigned a 100-lb. RQ. Wastes exhibiting the characteristic of toxicity are assigned RQs based on the RQs listed for the contaminants on which the extraction procedure (EP) toxicity characteristic is based. The RQ applies to the waste itself, not just the contaminant in the waste. 40 *CFR* §302.5(b). If EP toxicity is based on more than one contaminant, the RQ will be the lowest of the RQs listed for those contaminants. Finally, if a waste exhibits toxicity combined with another characteristic, the RQ will be the lowest of the applicable RQs.

5.6 DEFINITION OF REPORTABLE RELEASE

CERCLA defines a "release" to mean:

> Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant).

The statute excludes certain categories of releases, including releases that result in exposure to persons solely within a workplace, with respect to a claim such persons may assert against the employer of such persons. The exclusions also address emissions from the engine exhaust of motor vehicles, rolling stock, aircraft, vessels, or pipeline pumping station engines. CERCLA §9601 (22), 42 U.S.C. §9601(22).

5.7 PERIOD OF RELEASE

The CERCLA regulations specify that a 24-hour period is used for measuring whether the RQ of a substance has been released. 40 *CFR* §302.6(a). The 24-hour rule does not refer to the length of time a person has in which to report a release; the duty to report the release is immediate[35] once the RQ is exceeded. In addition, the 24-hour rule does not mean "midnight-to-midnight" or one calendar day. For example, if one half of the RQ is released between 10:00 p.m. and midnight, and one half is released between midnight and 2:00 a.m., the facility has a duty to report.

5.8 MIXTURES OF HAZARDOUS SUBSTANCES

Discharges of mixtures containing hazardous substances of known concentrations are reportable only where the hazardous substance component of a mixture or solution is discharged in a quantity equal to or greater than its RQ. If the quantity of one or more of the hazardous constituents is not known, notification is required when the weight of the entire mixture released equals the RQ

[30] For a discussion of arguments for exclusion of E&P wastes from CERCLA's definition of hazardous substances, see Jeffrey M. Gaga and Donald W. Stever, 1 Law of Solid Waste, Pollut. Prevent. and Recycl. §7:14 (2001); see also Michael M. Gibson and David P. Young, Oil and Gas Exemptions under RCRA and CERCLA: Are They Still "Safe Harbors" Eleven Years Later?, 32 S.Tex. L. Rev. 361 (1991).

[31] See 42 U.S.C. §6921(b)(2)(A) regarding E&P wastes, and 42 U.S.C.§§6921(b)(3) and 6924(x) regarding special study wastes.

[32] 40 *CFR* §302.4 lists section 3001 of Resource Conservation and Recovery Act as the statutory source for the listing of NO and NO_2, and section 311(b)(4) of the Clean Water Act as an additional source for the NO_2 listing.

[33] The List of Lists is available online from EPA's Chemical Emergency Preparedness and Prevention Office (http://yosemite.epa.gov/oswer/ceppoweb.nsf/index.html) by following the links for databases and software to the site offering EPA databases and software.

[34] See 5.2.2 for further discussion of these "unlisted" hazardous substances.

[35] See 5.13.

of any hazardous substance constituent. 40 *CFR* §302.6(b). The mixture rule conforms to the standard established for reporting hazardous substances under the CWA.[36] RQs of different substances (other than radionuclides) are not additive under the rule. The release of a mixture containing half the RQ of one substance and half the RQ of another hazardous substance does not, therefore, require a report.

5.9 DETERMINING THE RQ FORWASTE STREAMS

Wastes can be mixtures of various substances, and the rule for mixtures containing hazardous substances (See 5.8) sometimes applies for determining the waste's RQ. If a mixture qualifies as a "characteristic" hazardous waste and, therefore, an "unlisted" CERCLA hazardous substance, its RQ is 100 pounds (See Sections 5.2.2 and 5.5). If a mixture qualifies as a listed hazardous waste (e.g., API separator sludge, a refinery waste stream) and is, therefore, a listed CERCLA hazardous substance, its RQ is listed in 40 *CFR* §302.4, Table 302.4 (See 5.2.1 and 5.5). Otherwise, the mixture rule applies to a waste stream that contains a CERCLA hazardous substance. For example, if a waste that is a mixture of toluene and other materials is not a "characteristic" hazardous waste, the operator would apply the mixture rule to determine the RQ. Such a mixture would have an RQ of 1,000 pounds if the facility owner does not know the concentration of the toluene in the mixture. If the concentration of toluene is known, the release is reportable only if 1,000 pounds of toluene is released when the mixture is released.

5.10 DEFINITION OF FACILITY

Releases of hazardous substances from vessels, offshore facilities, and onshore facilities must be reported.

The term "vessel" means:

> [Every] description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.

The term "facility" means:

> (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

The statute also defines "offshore" and "onshore" facility:

> The term "offshore facility" means any facility located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel.
>
> The term "onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land or non-navigable waters within the United States.

Because the statutory definitions are all-inclusive, there is usually very little debate about whether a "facility" exists for CERCLA purposes.[37]

5.11 RELEASES INTO THE ENVIRONMENT

A hazardous substance must be released "into the environment" in an RQ before CERCLA notification is required. The CERCLA regulations define "environment" to mean:

> (1) the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Fishery Conservation & Management Act of 1976, and (2) any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

40 *CFR* §302.3. Releases of volatile liquids from tanks or valves onto outside concrete pads or into lined ditches open to the outside air, releases from pipes into lined open lagoons or ponds, or any other discharges that are not wholly contained within buildings or structures are reportable if an amount equal to the RQ is released through evaporation or otherwise escapes into the environment. A release of a hazardous substance at a facility does not have to be reported only if it does not enter the environment,

[36] See "Reportable Quantity Rule," 50 Fed. Reg. at 13,463.
[37] Definitions are from CERCLA §101, 42 U.S.C. §9601.

such as a spill onto the concrete floor in a manufacturing plant. EPA considers "ambient air" to be air that is not completely enclosed in a building or structure but that is over and around the grounds of a facility; therefore, a release inside a building is reportable only if an RQ leaves the building or structure.[38]

5.12 WORKPLACE EXCLUSION

A closely-related issue is CERCLA's so-called "workplace exclusion." The CERCLA definition of "release" excludes "any release which results in exposure to persons solely within any workplace, with respect to a claim which such persons may assert against the employer of such persons." CERCLA §101(22), 42 U.S.C. §9601(22). EPA has interpreted the exclusion as meaning that a worker exposed to a release within the workplace does not have a claim under CERCLA for that exposure. The availability of workers' compensation insurance does not prevent a facility from having to notify the NRC of a release that enters the environment, even if it only exposes workers within the workplace. If a release does not remain wholly contained within a building or structure, then it is a release into the environment for CERCLA purposes, regardless of whether it occurs within a workplace and should be reported if it equals or exceeds the RQ.[39]

5.13 "IMMEDIATE"NOTICE

The regulations do not provide any guidance on when the reporting obligation is triggered or how soon after someone at a facility has knowledge of a release a report is required to meet the statute's standard of "immediate" notification. Based on the legislative history of CERCLA, at least one decision has concluded that the "person in charge" whose knowledge triggers the reporting obligation is a person in a supervisory position, even if it is a relatively low-level supervisor.[40] The level of knowledge required also is undefined; however, decisions in EPA administrative enforcement cases suggest that a facility's notification requirement is triggered when a facility "has some degree of certainty that a reportable release has occurred."[41] Finally, although EPA's current enforcement policy suggests that a release should be reported within 15 minutes of when the person in charge has knowledge of the release,[42] decisions in enforcement actions suggest that what qualifies as "immediate" depends on the circumstances of each individual release.[43]

5.14 MECHANICS OF CERCLA NOTIFICATION

A release of a hazardous substance must be reported to the NRC. 40 *CFR* §302.6. The toll-free-number of the NRC is (800) 424-8802. The number for metropolitan Washington, D.C., is (202) 426-2675. Unlike the regulations for reporting releases of hazardous substances or oil under the CWA, the CERCLA regulations do not provide alternative reporting standards in the event reporting to the NRC is not practicable. SeeAppendix B for an outline of the kinds of information NRC requires in a report.

Although the regulations require the person in charge to report the release to the NRC by telephone, the NRC website at http://www.nrc.uscg.mil/index.htm includes online reporting forms for different categories of releases, such as continuous releases and releases from offshore platforms, vessels, storage tanks, fixed onshore facilities and mobile sources. Until revised regulations clarify that online reports meet the terms of the statute, any facility reporting a CERCLA release through an online report also should report the release by telephone in a manner conforming to the requirements of the regulations.

EPA has stated that, while all concurrent releases of the same substances from a facility must be aggregated to determine if an RQ has been exceeded, the person in charge of a facility need not report each individual release separately, such that one report could suffice for individual releases from multiple pieces of equipment within a facility. The notice provides as an example an operator reporting in a single notification "multiple concurrent RQ releases . . . occurring at various parts of a contiguous plant or installation on contiguous grounds under common ownership (e.g., at a chemical manufacturing plant or an oil refinery)."[44]

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[38]See Reportable Quantity Rule, 50 Fed. Reg. at 13,462.
[39]See Reportable Quantity Rule, 50 Fed. Reg. at 13,462-63.
[40]See *United States v. Carr,* 880 F.2d 1550, 1554 (2d Cir. 1989) (holding that knowledge of release by maintenance foreman supervising drum disposal triggered notification requirement).
[41]*In re Morton International, Inc.,* 1997WL 821128 (EPA), Docket No. EPCRA-VII-96E-218 (Dec. 12, 1997).
[42]OfficeofRegulatoryEnforcement,UnitedStatesEnvironmentalProtectionAgency,"EnforcementResponsePolicyforSections304,311and312oftheEmergencyPlanningandCommunityRight-to-KnowActandSection103oftheComprehensiveEnvironmentalResponse,Compensation and LiabilityAct," 11-12 (Sept. 30, 1999) ("Enforcement Policy").
[43]See *In re B.F. Goodrich,* 1998 WL 289247 (EPA), Docket No. EPCRA 002-95 (Apr. 29, 1998). The decision specifically rejects the complaint'scitationofa15-minutestandard,notingthatneitherCongressnorEPAinitsregulationsdefines"immediate,"andthevarietyofpossible release scenarios dictates that the term be interpreted "in this and many other cases . . . by reference to circumstances."
[44]Notification Requirements Rule, 50 Fed. Reg. at 13,459.

5.15 REPORTING"CONTINUOUS RELEASES"

CERCLA grants relief from the release notification requirements for hazardous substance releases that are "continuous" and "stable in quantity and rate." Notice of releases may fall under the reduced reporting requirements if:

- the releases are continuous and stable in quantity and rate; and
- the person in charge has notified the NRC of the release for a period sufficient to establish the continuity, quantity and regularity of the release.

CERCLA §103(f)(2), 42 U.S.C. §9603(f)(2). In addition to regulations at 40 *CFR* §302.8 implementing the continuous release reporting requirements, EPA has published a guide for facilities reporting continuous releases.[45]

5.15.1 Definition of"Continuous"

EPA defines continuous release to mean "a release that occurs without interruption or abatement, or that is routine, anticipated and intermittent during normal operations or treatment processes." 40 *CFR* §302.8(b). Examples include:

- production of a batch of a substance at the same time every week,
- startup of a machine every workday morning and its shutdown every workday evening, and
- use of a hazardous substance at a facility every day or at the same time every week.

A hazardous substance release also may be continuous if it occurs during a process that is run infrequently but at anticipated intervals that depend on market demand for a product.Variable, unanticipated, or episodic releases are *not* covered by the definition of continuous. Examples include:

- releases associated with accidents,
- releases associated with emergency shutdowns, and
- releases associated with pipe rupture.[46]

5.15.2 Definition of"Stable in Quantity and Rate"

The regulations define a release that is stable in quantity and rate to mean "a release that is predictable and regular in amount and rate of emission." 40 *CFR* §302.8(b). The rule preamble specifies that predictability and regularity do not equate to uniformity.[47]

5.15.3 Reporting Requirements for Continuous Releases

The regulations require an initial telephone call to the NRC and, if EPCRA reporting is applicable, to the SERC and LEPC.[48] The telephone notification should identify the release as "continuous" and announce the intent to report under the continuous release provisions. The notice must include:

- the name and location of the facility or vessel; and
- the name and identity of the hazardous substance being released.

Within 30 days of the telephone notification, initial written notification must be made to the appropriate EPA Regional Office, as well as the SERC and LEPC. EPA Regional Offices are identified inAppendix C. Like the initial notice by telephone, the initial written notification must identify the intent to report under the continuous release provisions. The initial written notification must provide basic identifying information, including information regarding the population in the area of the release and information on the normal range of the release. 40 *CFR* §302.8(e). The normal range is defined to include all the releases (in pounds or kilograms) of a hazardous substance reported or occurring over any 24-hour period under normal operating conditions during the preceding year, as long as those releases are both continuous and stable in quantity and rate. 40 *CFR* §302.8(b).

No new measurements are required to establish the normal range. The normal range is determined by the person in charge based on the professional judgment of the facility engineering staff, the operating history of the facility, experience with the operating equipment and processes, and any existing data.[49]

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[45] Office of Emergency and Remedial Response, United States Environmental Protection Agency, "Reporting Requirements for Continuous ReleasesofHazardousSubstances,AGuideforFacilitiesonCompliance"(1997). TheguideisavailablefromEPA'swebsitefortheSuperfund program, at (http://www.epa.gov/superfund/action/guidance/index.htm).

[46]See "Reporting Continuous Releases of Hazardous Substances," 55 Fed. Reg. 30,166, 30,169-70 (July 24, 1990) ("Continuous Release Rule").

[47]Continuous Release Rule, 55 Fed. Reg. at 30,170-71.

[48]For additional information on EPCRA release reporting requirements, see Section 6.

[49]See 40 *CFR* §302.8(e) and Continuous Release Rule, 55 Fed. Reg. at 30,174.

Within 30 days of the one-year anniversary date of the initial written notification, the person in charge must evaluate the reported releases and submit a one-time follow-up report to the appropriate EPA Region (but not the SERC or LEPC). 40 *CFR* §302.8(f).

5.15.4 Change in Source, Composition, or Volume

If there is any change in the source or composition of the release, the release is considered a new release. The required initial telephone and written notifications must be made in order for the release to qualify as a continuous release. 40 *CFR* §302.8(g)(1).

If a release exceeds the upper bound of the reported normal range, the release must be reported as a statistically significant increase (SSI), defined as any "increase in the quantity of the hazardous substance released that exceeds the upper bound of the reported normal range." Notice of a SSI must be provided to the NRC, SERC, and LEPC as soon as the person in charge has knowledge of the release. The notification may be made initially by telephone and followed up by a written notification within 30 days. 40 *CFR* §302.8(b)(g)(2) and (h).

All change notices must include a signed certification statement and the case number assigned by the NRC. 40 *CFR* §302.8(g)(4)

5.15.5 Annual Evaluation

The person in charge of the facility or vessel must evaluate each hazardous substance release annually to determine if changes have occurred in the information submitted in the initial written notification, the follow-up notification or in a previous change notification, but no routine annual report is required. 40 *CFR* §302.8(i).

5.16 "FEDERALLY PERMITTED" RELEASES

The provision in CERCLA requiring reports of releases specifically excludes a release that is "a federally permitted release." CERCLA §103(a), 42 U.S.C. §9603(a). The term "federally permitted" is in some ways a misnomer, because the exemption applies to permits and authorizations under six federal statutes and under state statutes authorizing certain oil and gas industry and water well injection practices. The following releases are considered federally permitted and therefore not reportable under CERCLA (or EPCRA):

- **Clean Air Act (CAA):** any emission into the air subject to a permit or control regulation under (1) new source performance standards in CAA §111, (2) standards to control hazardous air pollutants in CAA §112, (3) requirements for prevention of significant deterioration of air quality in title I part C, (4) plan requirements for nonattainment areas in title I part D, or (5) state implementation plans submitted in accordance with CAA §110 and not disapproved by the EPA, and (6) any schedule or waiver granted, promulgated, or approved under any of the CAA sections. CERCLA §101(10)(H), 42 U.S.C. §9601(10)(H).
- **Federal Water Pollution Control Act or Clean Water Act (CWA):** discharges in compliance with a National Pollutant Discharge Elimination System (NPDES) permit;[50] discharges in compliance with a legally enforceable CWA §404 permit for the discharge of dredged or fill material, CERCLA §101(10)(D), 42 U.S.C. §9601(10)(D); and the introduction of any pollutant into a publicly owned treatment works when the pollutant is specified in and in compliance with applicable pretreatment standards of CWA §307(b) or (c) and enforceable requirements in a pretreatment program submitted by a State or municipality for Federal approval, CERCLA §101(10)(J), 42 U.S.C. §9601(10)(J).
- **Marine Protection, Research and Sanctuaries Act:** any release in compliance with a legally enforceable ocean dumping permit. CERCLA §101(10)(F), 42 U.S.C. §9601(10)(F).
- **Solid Waste Disposal Act:** a release in compliance with a legally enforceable final permit for a hazardous waste treatment, storage or disposal facility, when such permit specifically identifies the hazardous substances and makes such substances subject to a standard of practice, control procedure or bioassay limitation or condition, or other control on the hazardous substances in such releases. CERCLA §101(10)(D), 42 U.S.C. §9601(10)(D).
- **Atomic Energy Act:** any release of source, special nuclear, or by-product material in compliance with a legally enforceable license, permit, regulation, or order. CERCLA §101(10)(K), 42 U.S.C. §9601(10)(K).

[50] See 42 U.S.C. §9601(10)(A). Also federally permitted under the aegis of the NPDES permit program are (1) discharges resulting from circumstances identified and reviewed and made part of the public record with respect to the issuance or modification of a NPDES permit and subject to a condition of the NPDES permit, and (2) continuous or anticipated intermittent discharges from a point source, identified in a NPDES permit or NPDES permit application, which are caused by events occurring within the scope of relevant operating or treatment systems. See CERCLA §101(10)(B) and (C), 42 U.S.C. §9601(10)(B) and (C).

- **Safe Drinking Water Act:** any injection of fluids authorized under federal underground injection control programs or state programs submitted for federal approval, and not disapproved by EPA. CERCLA §101(10)(G), 42 U.S.C. §9601(10)(G).
- **State Statutes:** any injection of fluids or other materials authorized under applicable state law (i) for the purpose of stimulating or treating wells for the production of crude oil, natural gas, or water, (ii) for the purpose of secondary, tertiary, or other enhanced recovery of crude oil or natural gas, or (iii) which are brought to the surface in conjunction with the production of crude oil or natural gas and which are re-injected.

Releases of hazardous substances in amounts greater than those authorized by federal or state permits, or by other regulatory controls or standards, must be reported to the applicable government agencies as stipulated in those permits or regulations. Once the amount released exceeds the amount authorized to be released by an amount that is equal to or greater than the RQ, and if no other exclusion applies, the release should be reported to the NRC and, when applicable, to the SERC and LEPC under EPCRA. See Chapter 6 for additional information on EPCRA reporting.

5.16.1 EPA Statements Regarding the Scope of the Federally Permitted Releases Exclusion

EPA issued an advance notice of proposed rulemaking in 1983 soliciting comments on the scope of the federally permitted release exclusion, a proposed rule in 1988, and a supplemental notice clarifying the proposal in 1989.[51] EPA has not, however, adopted regulations to implement the exclusion beyond references to the terms as defined in the statute. In April 2002, EPA issued two notices providing guidance on the interpretation of the federally permitted releases exclusion for certain air emissions.[52] The two guidance documents regarding air emissions are reprinted in Appendix E and are discussed in detail in 5.16.2.

EPA's statements about the scope of the exclusion in the proposal notices and in the April 17 and April 23 guidance documents provide evidence of how EPA may interpret the scope of the exclusion in any enforcement action; however, they should not be treated as if they had the effect of regulations. The documents are not regulations, and there is some authority from judicial decisions suggesting that EPA's interpretation of the exclusion may not be definitive.[53] Legislative history of the exclusion also may provide some guidance.[54]

Questions about the scope of the exclusion should be referred to legal counsel.

5.16.2 EPA Guidance Documents on Reporting Releases to Air

The CERCLA legislative history that discusses the federally permitted release exclusion acknowledges that CAA emission controls work through a variety of means, including express emission limitations, technology requirements, operational requirements, work practices, or other control practices.[55] EPA cites that legislative history in the April 17 Guidance when discussing the limitations of the Guidance:

> This guidance is intended for you to use as a general guide to determine, on a case-by-case basis, whether an air release of a hazardous substance qualifies as a federally permitted release. You should consider any permit language as a whole rather than reviewing specific language in isolation and also look at all applicable control

[51] "Notification Requirements; Reportable Quantity Adjustments," 48 Fed. Reg. 23,552 (May 25, 1983); "Reporting Exemptions for Federally Permitted Releases of Hazardous Substances," 53 Fed. Reg. 27,267 (July 19, 1988); and "Reporting and Liability Exemptions for Federally Permitted Releases of Hazardous Substances," 54 Fed. Reg. 29,306 (July 11, 1989).

[52] "Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions," 67 Fed. Reg. 18,899 (April 17, 2002) ("April 17 Guidance"); "Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Clean Air Act 'Grandfathered' Sources," 67 Fed. Reg. 19,750 (April 23, 2002) ("April 23 Guidance"). The April 17 Guidance and April 23 Guidance were issued pursuant to settlement of a lawsuit filed by API and a number of affiliated trade associations in the Court of Appeals for the District of Columbia Circuit challenging "interim guidance" on federally permitted releases to air that EPA issued in December 1999. "Interim Guidance Documents on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions," 64 Fed. Reg. 61,613 (Dec. 21, 1999). The December 1999 "interim guidance" was suspended and, in effect, withdrawn soon after the trade associations filed their lawsuit.

[53] *Kelley v. Environmental Protection Agency* suggests that EPA lacks authority under CERCLA to issue a regulation interpreting the federally permitted release exclusion. In *Kelley,* the U.S. Circuit Court of Appeals for the District of Columbia Circuit held that Congress left the determination of issues of liability under sections 106 and 107 of CERCLA to the courts, and, therefore, did not explicitly or implicitly authorize EPA to issue substantive regulations to determine when a secured creditor could incur CERCLA liability as an owner or operator. 15 F.3d 1100, 1106 (D.C.Cir. 1994), *reh'd denied,* 25 F.3d 1088 (D.C.Cir. 1994), *cert. denied, American Bankers Ass'n v. Kelley,* 513 U.S. 1110, 115 S.Ct. 900, 130 L.Ed. 2d 784 (1995). Because the federally permitted release exclusion can be central to a determination of liability, EPA arguably lacks authority to promulgate a rule defining federally permitted release. The D.C. Circuit Court also specifically held, on rehearing *Kelley,* that a court would not accord EPA's interpretations on issues of liability the kind of deference a court normally accords agency interpretations when Congress has delegated adjudicatory functions to the agency. *Kelley v. EPA*, 25 F.3d 1088, 1091-92 (D.C.Cir. 1994). The decision rejects the applicability of *Chevron* deference to the EPA's interpretation, referring to the formulation in *Chevron USA Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984), under which an agency has significant latitude in interpreting terms of a statute.

requirements in order to determine whether, taken together, they subject a release of a hazardous substance to a relevant CAA permit or control regulation.[56]

The April 17 Guidance addresses the following issues related to federally permitted releases to air: releases exceeding permit limits (5.16.2.1); permit or control limits on volatile organic compounds and particulate matter (5.16.2.2); permit or control limits on nitrogen oxides (5.16.2.3); treatment of minor sources of air emissions (5.16.2.4); waivers (5.16.2.5); accidents and malfunctions (5.16.2.6); and start-up and shut-down operations (5.16.2.7). The April 23 Guidance addresses grandfathered sources (5.16.2.8).

5.16.2.1 Releases Exceeding Permit Limits and Control Regulations

EPA does not consider a release of a hazardous substance that is in excess of limits set by a CAA permit or control regulation to be a federally permitted release.[57] Accordingly, a release of a hazardous substance that exceeds the limits of a permit or control regulation is subject to reporting requirements if the amount released that is in excess of that permit or control regulation or permit also equals or exceeds the RQ. In support of this conclusion, EPA cites an EPA Environmental Appeals Board (EAB) decision that rejected the argument that a release "subject to" a control requirement was a federally permitted release, even though it was out of compliance with the control requirement.[58]

5.16.2.2 Permit or Control Limits on Volatile Organic Compounds and Particulate Matter

The definition of federally permitted release cites requirements that limit emissions of specific hazardous air pollutants and of criteria pollutants, such as volatile organic compounds (VOCs) and particulate matter (PM). Permits or control regulations limiting emissions of VOCs and PM may not list the specific CERCLA hazardous substances that are part of the controlled emission stream. In such a case, the April 17 Guidance indicates that the facility operator should consider whether the federally enforceable CAA permit limit or the applicable control regulations have the specific effect of limiting or eliminating the release of the designated hazardous substance, or EHS in the case of EPCRA reporting. The April 17 Guidance suggests several criteria to take into account in making that determination:

- The term of the federally enforceable limits: The guidance suggests that short term limits, including those for VOCs or PM, are more likely to minimize the possibility of a substantial release of a hazardous substance or EHS.
- Other evidence that the federally enforceable limits would have the specific effect of limiting or eliminating the release of a hazardous substance or EHS: The guidance suggests that information in the permit application or applicable regulation (including supporting materials such as preambles, technical background documents, or details in the permit application that are referenced in the permit) that clearly shows that the federally enforceable VOC or PM limits have the specific effect of limiting or eliminating the release of a hazardous substance or EHS would bolster an argument for finding a release to be a federally permitted release.[59]

5.16.2.3 Permit or Control Limits on Nitrogen Oxides

With respect to emissions of NO and NO_2 that are subject to permit limits and control regulations designed to limit emissions of NO_x, the April 17 Guidance indicates that the NO_x permit limits are sufficient to meet the federally permitted release definition for NO and NO_2.[60]

EPA also has announced a policy that provides some relief from release notification requirements for combustion sources, such as engines and flares, that otherwise would have to report releases of relatively low levels of NO_x as continuous releases (See 5.15). The April 17 Guidance announces that EPA agrees with comments it received asserting that the 10-lb. RQ for reporting

[54]See Senate Rep. 848, 96th Cong., 2d Sess. 46-50 (1980). Judicial decisions on the scope of the exemption have construed it narrowly. See *Mardan Corp. v. C.G.C. Music, Ltd.*, 600 F. Supp. 1049, 1054 (D.Ariz. 1984) (limiting exemption to terms specified for releases from RCRA-permitted facilities); *Reading Co. v. Philadelphia*, 823 F. Supp. 1218, 1230-31 (E.D.Pa. 1993) (declining to read exemption as covering releases of PCBs from transformers based on authorization to use the minnon-totally enclosed manner under TSCA because compliance with TSCA not equivalent to obtaining a RCRA permit); *Idaho v. Hanna Mining Co.*, 699 F. Supp. 827, 831-32 (D. Idaho 1987) (limiting exemption to point source discharges under NPDES permit); and *United States v. United Nuclear Corp.*, 814 F. Supp. 1552, 1565 (D. N.Mex. 1992) (holding that tailings seepage was not federally permitted by state license, even though agency staff were aware of seepage, because it was not specifically authorized by the permit).

[55]See Senate Rep. 848, 96th Cong., 2d Sess. 49 (1980).

[56]April 17 Guidance, 67 Fed. Reg. at 18,901.

[57]April 17 Guidance, 67 Fed. Reg. at 18,902.

[58]See *In re Mobil Oil Corp.*, EPCRA Appeal No. 94-2, 5 EAD 490, 508, 1994 WL 544260 (EAB, Sept. 29, 1994).

[59]April 17 Guidance, 67 Fed. Reg. at 18,902.

[60]April 17 Guidance, 67 Fed. Reg. at 18,902.

releases of NO and NO_2 is unreasonably low for certain NO_x releases. The Agency supports adoption of an administrative reporting exemption for those releases[61] and has published a notice announcing exercise of enforcement discretion for such releases. According to the notice, until EPA completes action on an administrative reporting exemption for NO_x emissions, or until it publishes a notice stating otherwise, EPA will exercise discretion not to enforce against facilities for failure to report air releases of NO and NO_2 that would otherwise trigger a requirement to notify. The policy of enforcement discretion will not apply in the case of releases that are the result of an accident or malfunction.[62]

5.16.2.4 Minor Sources of Air Emissions

A significant number of small sources of air emissions do not have CAA permits because their emissions fall below a threshold for permitting set by regulations. The April 17 Guidance indicates that a release in compliance with a federally enforceable threshold, including releases that comply with technology requirements, operational requirements, work practices, or other control practices, are federally permitted releases when the threshold limits or eliminates the release of the hazardous substance or EHS.[63]

Releases of HAPs such as benzene from area sources of hazardous air pollutants (HAPs), those that do not have a potential to emit 10 tons per year or more of a single HAP or 25 tons per year of a combination of HAPs, would be federally permitted releases as long as the releases remain below that threshold. For example, a release of benzene from a glycol dehydrator in compliance with the area source threshold in the national emission standards for hazardous air pollutants from oil and natural gas production facilities would be a federally permitted release.[64]

A similar result applies in the case of federally enforceable thresholds adopted under a state implementation plan (SIP) for criteria pollutants. A release of a hazardous substance or EHS from the normal operations of a minor source in compliance with a regulation in a SIP setting a threshold for imposition of permitting or other control requirements will be considered a federally permitted release. The EPA guidance suggests that releases of nitrogen oxides or sulfur dioxide from an internal combustion engine meeting the threshold for exemption from permitting under a state regulation incorporated in a SIP could be federally permitted releases.

For example, the New Mexico Air Quality Bureau ("NMAQB") limits small sources to de minimis emission rates of 10 tons per year of criteria pollutants and one ton per year of lead, and Colorado exempts from permit requirements sources emitting up to 25 tons per year.[65] Emissions authorized by such exemptions from permit requirements should qualify as federally permitted releases. Releases from a minor source authorized by a control regulation but not required to obtain an individual permit, such as a small source authorized by Texas' "permit by rule" regulations, also could be federally permitted releases.[66]

The April 17 Guidance emphasizes that the area source and minor source thresholds generally do not control unanticipated releases such as accidents or malfunctions. EPA, therefore, would not consider RQ releases that are not part of a facility's normal operations, such as unanticipated releases and those caused by accidents and malfunctions, to be federally permitted releases.[67]

5.16.2.5 Waivers

EPA has published only one example of a release that is federally permitted because it is subject to a schedule or waiver granted under a SIP, new source performance standards (NSPS), hazardous air pollutant source standards, prevention of significant deterioration requirements, or plans for attainment of air quality standards. The Guidance cites as an example a release in compliance with a waiver from NSPS to allow use of alternative innovative technology, or with a schedule for compliance imposed if the alternative technology does not reduce emissions that equal or exceed the NSPS.[68]

5.16.2.6 Accidents and Malfunctions

EPA generally considers releases of an RQ of a hazardous substance arising from an accident or malfunction a reportable release, even when the release occurs from a facility that is operating consistent with an accident and malfunction plan required by

[61] April 17 Guidance, 67 Fed. Reg. at 18,900.
[62] April 17 Guidance, 67 Fed. Reg. at 18,904.
[63] April 17 Guidance, 67 Fed. Reg. at 18,903.
[64] See 40 *CFR* §63.760.
[65] The NMAQB regulation requires sources exceeding the exemption limit to register with the NMAQB and in some cases submit a permit application. 20 N.M. Admin. Code §2.73.200. Colorado requires permit applications for sources above 25 tons per year; below that level, it requires a source to file an "Air Pollutant Emission Notice," and very small sources (less than two tons/year, or one ton/year in nonattainment areas) are exempt from that notice requirement. 5 Colo. Code Regs. 1001-5, Regulation No. 3, §II.D. Reg. 3 also includes some specific standards in individual exemptions. Petroleum industry flares are exempt if burning natural gas with a concentration of hydrogen sulfide ("H_2S") below 500 ppmw and total uncontrolled emissions of any pollutant of less than 5 tons per year.
[66] See Permits by Rule, 30 Tex. Admin Code Ch. 106.
[67] April 17 Guidance, 67 Fed. Reg. at 18,903.
[68] April 17 Guidance, 67 Fed. Reg. at 18,903.

a CAA permit or control requirement. In *In re Borden Chemicals & Plastics Co.*,[69] an EPAAdministrative Law Judge concluded that a release from an emergency relief valve at a facility operating consistent with an accident and malfunction plan required by national emission standards for hazardous air pollutants (NESHAP) was not federally permitted because the NESHAP regulation did not control the discharge.

The EPA guidance, however, suggests that it is possible that some releases from facilities operating under accident and malfunction plans could qualify as federally permitted releases. EPA states that the wide variety of approaches to emission controls and standards under the CAA may create "unusual circumstances" in which such a release could qualify for the exclusion from reporting requirements.Although the guidance does not provide any examples of what those "unusual circumstances" could be, it leaves the door open to consideration of an argument for an exemption in the case of circumstances that are not identical to those in *In re Borden*.[70]

5.16.2.7 Start-up and Shut-down Operations

EPA's policy on releases subject to a start-up and shut-down plan is similar to its policy on releases from operations consistent with an accident and malfunction plan. EPA believes that the start-up and shut-down plan should include federally enforceable procedures to limit or control the releases during the start-up and shut-down operations before releases occurring from operations consistent with that plan would be considered federally permitted releases. Releases during such operations that are exempt from CAA regulation, or otherwise not subject to emission limits or other controls, would not qualify as federally permitted releases.[71]

5.16.2.8 Grandfathered Sources

EPA has stated that generally releases from grandfathered sources, emission sources in existence when the CAA was enacted and not subsequently modified, do not qualify as federally permitted releases. To the extent that releases from such sources, however, are subject to applicable permit or control regulations, such as NESHAPS, limits or controls in a state's federally enforceable plan to attain air quality standards or a SIP (including minor source thresholds), the releases may qualify as federally permitted releases.

5.17 ENFORCEMENT PROVISIONS

Section 103 of CERCLA provides for criminal penalties for failure to report a release of a hazardous substance or for knowingly submitting false or misleading information. The statute calls for fines to be set in accordance with the criminal code and for imprisonment of up to three years (five years for subsequent convictions).

Section 109 of CERCLA provides for civil penalties of up to $25,000 per incident for violation of the section 103 notification requirements. Section 109 also provides for Class IIAdministrative penalties of up to $25,000 per day for each day during which the violation continues. Subsequent violations may be fined up to $75,000 per day.

[69]Order Granting PartialAccelerated Decision Concerning Liability, 1993WL 70228 (EPA), Docket No. EPCRA 003-1992 (Feb. 18, 1993).
[70] April 17 Guidance, 67 Fed. Reg. at 18,903.
[71]April 17 Guidance, 67 Fed. Reg. at 18,904.

6 Reporting Requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA)

Release reporting requirements in EPCRA of concern to oil and gas operations are in EPCRA section 304, which establishes a program with many similarities to the CERCLA release reporting programs, but requires that releases be reported to state and local authorities instead of to the NRC. This chapter provides a limited discussion of other EPCRA reporting provisions for identifying the presence of certain chemicals in a facility's operations instead of their release, specifically requirements in EPCRA §§302, 311 and 312.[72]

6.1 KEY DEFINITIONS FOR EPCRA PROGRAMS

6.1.1 Extremely Hazardous Substance and Threshold Planning Quantity

EPRCA defined a new category of hazardous substance, the extremely hazardous substance or EHS. EHSs are intended to be chemicals that cause serious, irreversible health effects from accidental releases. The list of over 300 chemicals identified as EHSs is in Appendices A and B of 40 *CFR* Part 355, and in EPA's List of Lists.[73] The Appendices to the Code of Federal Regulations lists EHSs alphabetically by name and by CAS Registry Number. The Lists of Lists is in numberical order by CAS number, but includes an index by chemical name. Users of either document should consult current editions of the Federal Register for updates.

Three kinds of reporting requirements apply to EHSs. First, EPCRA establishes an RQ for each EHS and requires a facility to notify the SERC and the community emergency coordinator for the LEPC of any RQ release of an EHS or a CERCLA hazardous substance. Second, any facility that contains an EHS in excess of the threshold planning quantity (TPQ), identified in the regulations and in the List of Lists, must notify the appropriate SERC that it is subject to the emergency planning requirements of Subchapter I.[74] Third, EPCRA requires facilities to submit certain initial notifications and annual inventory reports on EHSs present in their operations. The reporting quantity is the TPQ or 500 pounds, whichever is lower.

Obviously, not all of the more than 800 CERCLA hazardous substances are EHSs. The facility operator should take note, however, that not all EHSs are CERCLA hazardous substances. For example, sulfur dioxide is an EHS with a TPQ and RQ of 500 pounds; however, it is not a CERCLA hazardous substance. Therefore, a facility operator with an RQ release of sulfur dioxide that is not a federally permitted release would report the release to the SERC and LEPC, but not to the NRC.

6.1.2 Definition of Facility

The EPCRA regulations confusingly offer different definitions of "facility" for the different reporting programs, and all of the EPCRA program definitions differ from the one governing CERCLA reporting.[75] The EPCRA regulations for release reporting define "facility" as follows:

> *Facility* means all buildings, equipment, structure[s], and other stationary items that are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with, such person). *Facility* shall include man-made structures in which chemicals are purposefully placed or removed through human means such that it functions as a containment structure for human use. For purposes of emergency release notification, the term includes motor vehicles, rolling stock, and aircraft.[76]

40 *CFR* §355.20. The regulations for the EPCRA section 311 and 312 hazardous chemical reporting program (See 6.7) include the following additional term:

> *Facility* shall include man-made structures as well as all natural structures in which chemicals are purposefully placed or removed through human means...

[72] Requirements for toxic chemical release reporting under EPCRA section 313 do not apply to E&P operations. See 1.3.

[73] The List of Lists is available online from EPA's Chemical Emergency Preparedness and Prevention Office (http://www.epa.gov/ceppo/) by following the links for databases and software to the site offering EPA databases and software.

[74] The facility operator should take care not to confuse the EPCRA threshold planning quantity with the "threshold quantity" that triggers certain obligations for risk management planning under Section 112(r) of the Clean Air Act. See 40 *CFR* Part 68 and API Publication 761, Model Risk Management Plan Guidance for Exploration and Production (E&P) Facilities, 2d Ed. (June 1998), for additional information on Risk Management Program requirements.

[75] The "facility" definition for the EPCRA section 313 toxic chemical release reporting program, not discussed in the text, excludes the references to "man-made structures" and "natural structures" for chemical storage and specifies: "A facility may contain more than one establishment." 40 *CFR* §372.3. The rule defines establishment as "an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed." *Id.*

[76] 40 *CFR* §§355.20 and 370.2.

40 *CFR* §370.20. The preamble to the rule does not explain the difference between the definition for emergency planning and release reporting in Part 355 and for hazardous chemical reporting in Part 370.[77]

6.1.2.1 The "Facility" Definition and Subsurface Structures

The reference to "natural structures" in the Part 370 definition and the discussion of "Subsurface Operations" in the preamble to the rule adopting the definition raised a question about whether a naturally occurring oil and gas reservoir was a "structure" qualifying as a "facility" for hazardous chemical reporting. An October 25, 1990, letter from EPA to the American Petroleum Institute clarified the rule, concluding that oil deposits are not "structures" and that drilling and production operations would not convert the deposits to "containment structures" subject to the EPCRA reporting requirements. The text of the letter is reprinted in Appendix F.

6.1.2.2 The "Facility" Definition and Offshore and OCS Facilities

The CWA and CERCLA specifically define a facility required to report releases as including an "offshore facility." CWA §311(a)(11), 33 U.S.C. §1321(a)(11); CERCLA §101(17), 42 U.S.C. §9601(17). The EPCRA "facility" definitions do not refer specifically to offshore facilities, but they can be interpreted to include offshore platforms. A platform arguably includes "equipment, structure[s], and other stationary items... located on a single site."

Some EPCRA reporting requirements, however, may not apply to offshore and OCS facilities. EPCRA section 311 and 312 hazardous chemical reporting requirement do not apply to OCS facilities, which are outside of the jurisdiction of SERCs, LEPCs, and local fire departments. OCS facilities also appear to be excluded from EPCRA section 302 notification and emergency planning requirements. Offshore facilities in state waters generally are outside the jurisdiction of fire departments and LEPCs, but may be subject to the authority of SERCs. Such facilities, for example, may be required to submit EPCRA section 311 and 312 reports to the SERC, but not to the LEPC or local fire department. In the case of a facility, however, with a TPQ of an EHS that could, if released, affect an onshore area, an operator should consider whether the notification and emergency planning requirements apply. EPA has not issued guidance on this issue, and in cases of doubt a facility operator should consult legal counsel.

Whether an offshore facility is outside the jurisdiction of SERCs and LEPCs does not appear to affect release notification requirements. The emergency release notification rule requires notice to "the community emergency coordinator for the local emergency planning committee of any area likely to be affected by the release and the State emergency response commission of any State likely to be affected by the release." 40 *CFR* §355.40(b)(1). Although a facility in state waters may be outside the jurisdiction of a LEPC, and an OCS facility may be outside the jurisdiction of both LEPCs and SERCs, the regulations require notice to the officials of areas that could be affected by a release.

6.2 TRANSPORTATION EXCLUSION

Except for reporting emergency releases under EPCRA section 304, the transportation, including the storage incident to transportation, of any substance or chemical is exempt from the requirements of EPCRA. The statute specifies that the exclusion applies to the "transportation and distribution of natural gas." 42 U.S.C. §11047. A facility from which there is a transportation-related release can meet the EPCRA section 304 reporting obligations by providing the required information to the 911 operator or, in the absence of a 911 operator, to the telephone operator. 40 *CFR* 355.40(b)(4)(ii). No follow-up notifications appear to be required, although Department of Transportation regulations applicable to the mode of transportation (pipeline, motor carrier, railroad) may require submission of a follow-up report.[78]

Regulations define a "transportation-related release" to mean:

> a release during transportation, or storage incident to the transportation if the stored substance is moving under active shipping papers and has not reached the ultimate consignee.

40 *CFR* §355.40(b)(4)(ii).

The regulatory definition notwithstanding, not all modes of transport rely on "active shipping papers." EPA question and answer documents available on the website for the Chemical Emergency Preparedness and Prevention Office may offer some guidance on when storage begins and ends for a variety of modes of transportation.[79] The online EPA guidance suggests a broad definition of transportation by pipeline, citing the definition in Department of Transportation pipeline safety regulations.[80] In a case of doubt, however, when a facility operator is uncertain whether a release report to the 911 operator will fulfill the EPCRA section 304 requirements, a prudent operator may choose to follow a 911 operator report with a report to other local authorities.

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[77] See "Community Right-to-Know Reporting Requirements," 55 Fed. Reg. 30632 (July 26, 1990).

[78] For example, see 49 *CFR* pt. 191 for reporting obligations for natural gas pipelines; 49 *CFR* pt. 195, subpt. B for reporting obligations for hazardous liquids pipelines; and 49 *CFR* §§171.15 and 171.16 for motor, rail, and air transportation.

6.3 THE CERCLA PETROLEUM EXCLUSION AND EPCRA

Because the EPCRA release reporting program follows the CERCLA release reporting program, there was some speculation soon after EPCRA was enacted that the CERCLA petroleum exclusion could apply to EPCRA.[81] EPA is unequivocal in its view that the CERCLA petroleum exclusion does not apply to EPCRA, and has stated:

> [I]f extremely hazardous substances are present in petroleum, those substances are subject to applicable emergency planning and release notification requirements under [EPCRA].[82]

For oil and gas operators, the primary issue likely will involve a release of sour crude oil or natural gas, but not other releases of petroleum that would otherwise be exempt from reporting under CERCLA. The following examples illustrate the impact of the absence of a petroleum exclusion in EPCRA:

- A release of sour crude oil that contains an RQ or more of an EHS such as hydrogen sulfide would be exempt from CERCLA reporting to the NRC, but not from the EPCRA requirement to report the release of an RQ of an EHS to the SERC and LEPC.
- A release of crude oil that only contains, as a constituent of the crude oil, an RQ or more of a listed CERCLA hazardous substance that is not also an EPCRA EHS, such as toluene, would not be reported. The release would be exempt from CERCLA reporting to the NRC because of the petroleum exclusion. No report would be required under EPCRA because toluene is not an EHS.
- A release of an RQ of CERCLA hazardous substance, such as toluene solvent, would be reported to the NRC, the SERC and LEPC, because the petroleum exclusion does not apply to toluene as a product.

6.4 ELEMENTS OF SECTION 304 REPORTING REQUIREMENTS

Section 304 notification is required when a facility releases an RQ of a hazardous substance or EHS, unless an exemption applies. RQs are published for CERCLA hazardous substances at 40 *CFR* §302.4 in Table 302.4, and for EHSs in 40 *CFR* Part 355, Appendices A and B.[83]

6.4.1 Releases

The EPCRA release reporting regulations define "release" to mean:

> any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any hazardous chemical extremely hazardous substance, or CERCLA hazardous substance.

40 *CFR* §355.20. As under CERCLA, the EPCRA notification requirement covers releases into all media.

6.4.2 Mixtures

The EPCRA regulations include a special rule for determining whether a mixture or solution contains a TPQ of an EHS.[84] For purposes of reporting releases of EHSs or CERCLA hazardous substances, the same rule applies under EPCRA that applies under

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[79] For example, EPA has stated that it considers oil pipeline surge tanks to be part of the pipeline (and so containing materials in transportation), but tanks at oil terminals (where product is transferred to another mode of transport) to be fixed facilities containing materials that are no longer in transportation. See "Section 311/312: Transportation Exemption for Breakout Tanks in a Pipeline," October 1988 Monthly Hotline Report & Q&A June 1, 1989, #86, available on the EPA Chemical Emergency Planning and Preparedness Office website at (http://www.epa.gov/oswer/ceppoweb.nsf/content/q&a..htm).

[80] The definition of pipelines in the hazardous liquid pipeline safety regulations includes "line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks." 49 *CFR* §195.2. The regulations for natural gas pipelines define pipelines as "all parts of those physical facilities through which gas moves in transportation, including, but not limited to, pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holds, and fabricated assemblies." 49 *CFR* §191.3.

[81] See 5.3 on the petroleum exclusion.

[82] See "Extremely Hazardous Substances List and Threshold Planning Quantities; Emergency Planning and Release Notification Requirements," 52 Fed. Reg. 13,378, 13,385 (Apr. 22, 1987) ("EHS/TPQ Rule").

[83] RQs also are published in EPA's List of Lists. The October 2001 List of Lists is available online from EPA's Chemical Emergency Preparedness and Prevention Office (http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/index.html) by following the links for databases and software to the site offering EPA databases and software.

[84] See 40 *CFR* §355.30(e).

CERCLA: if the concentration of the EHS or CERCLA hazardous substance in a mixture is not known, the facility operator submits notice of the release if the weight of the entire mixture equals the lowest RQ of any constituent of the mixture.[85]

6.4.3 Exceptions to the Emergency Release Notification Requirement

No notification is required of a release that otherwise would have to be reported to the SERC and LEPC if it meets the standards for one of the following exemptions from reporting:

- **No offsite exposure:** Any release that results in exposure to persons solely within the boundaries of the facility does not have to be reported. 40 *CFR* §355.40(2)(i). This exception differs slightly from the CERCLA requirement to report releases to the "environment." See 5.11.
- **Federally permitted release:** Any release that would be exempt from the notification requirement under CERCLA as a federally permitted release also is exempt from EPCRA reporting. 40 *CFR* §355.40(2)(ii). This exception applies to releases of EHSs that are not CERCLA hazardous substances (such as sulfur dioxide) as well as to releases of CERCLA hazardous substances.
- **Continuous releases:** Any release qualifying for exemption from reporting under CERCLA because it is continuous and stable in quantity and rate, as defined by CERCLA regulations at 40 *CFR* §302.8, also is exempt from reporting under EPCRA. 40 *CFR* §355.40(2)(iii). The facility operator must provide the SERC and LEPC the initial written notification of a continuous release and notice of any statistically significant increase, or a change in composition or source that would qualify a release as a new release. See 5.15 regarding the CERCLA exception for reporting continuous releases.
- **Pesticides:** The same pesticide exemption applies under EPCRA that applies under CERCLA. The EPCRA notification requirements do not apply to the application of a pesticide registered under the Federal Insecticide, Fungicide, and Rodenticide Act or to the handling and storage or the pesticide by an agricultural producer. 40 *CFR* §355.40(2)(iv).
- **Releases that are not "releases":** EPCRA also excludes from the notification requirement any release that is excluded from the definition of "release" in CERCLA. 40 *CFR* §355.40(2)(v). The CERCLA definition excludes: (A) any release which results in exposure to persons solely within a workplace, with respect to which such persons may assert a claim against the employer of such persons, (B) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (C) certain releases of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 and (D) the normal application of fertilizer. See 42 U.S.C. §9601(22). See 5.12 regarding the workplace exclusion.
- **Radionuclides:** Several categories of radionuclide releases also are excluded by the regulations, such as releases occurring naturally from land and some land disturbance activities such as mining, and from certain handling and storage of coal and coal ash. 40 *CFR* §355.40(2)(vi).

6.5 MECHANICS OF NOTIFICATION

6.5.1 Immediate Notification

Immediate notice of a reportable release is required to:

- the community emergency coordinator for the LEPC for any area likely to be affected by the release, or the local emergency response personnel if there is no community emergency coordinator, and
- the SERC of any State likely to be affected by the release.

The notice must include the following information to the extent the information is known:

- the chemical name or identity of any substance involved in the release,
- an indication of whether the substance is an EHS,
- an estimate of the quantity of any CERCLA hazardous substance or EHS that was released into the environment,
- the time and duration of the release,
- the medium or media into which the release occurred,
- any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals,
- proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordinator pursuant to the emergency plan), and
- the name and telephone number of the person or persons to be contacted for further information.

40 C.F. R. §355.40(6)(2). If all of the reportable information is not available, the facility owner or operator should not delay making the initial call.

[85] Section 5.8 of this document discusses the mixture rule under CERCLA. See also EHS/TPQ Rule, 52 Fed. Reg. at 13,392.

If the release occurs near a state border or near a large metropolitan area, more than one SERC or LEPC is likely to be affected. If such a case, all must be notified. Because the SERC for Indian Country will be a tribal authority, a facility in or near Indian Country that could be affected by a release should ensure that it notifies the designated tribal authority. 40 *CFR* §355.20.

6.5.2 Follow-up Notification

The statute and regulations require a facility owner or operator to provide the SERC and LEPC written follow up notice as soon as practicable after a release. 40 *CFR* §355.40(6)(3). The notice must include all the information required by the immediate notification provision and certain additional information:

- a description of actions taken to respond to and contain the release,
- any known or anticipated acute or chronic health risks associated with the release, and
- if appropriate, advice concerning medical attention given to exposed individuals.

The regulations do not specify a deadline for the follow-up report; however, EPA's Enforcement Response Policy authorizes imposition of penalties for failing to provide written follow-up notice within 7 days after the release.[86]

6.6 SECTION 302 NOTIFICATION

A key goal of EPCRA is making adequate information available so that LEPCs will know which facilities to cover in the comprehensive emergency response plan they have to develop under EPCRA section 303.[87] Section 302, therefore, requires any facility that contains an EHS in excess of the TPQ to notify the SERC in which the facility is located of the presence of the EHS. The facility also must designate a facility emergency coordinator to participate in the emergency planning process; provide the local committee with whatever information that group needs to devise an emergency response plan; and promptly notify the local committee with jurisdiction over the facility of any relevant changes at the facility as they occur or are expected to occur. 40 *CFR*§355.30.

Facility owners and operators should check the list of EHSs against their on-site inventories and determine whether they have listed substances in quantities above the prescribed TPQ limits. The facilities should take into account temporary activities, such as workovers and drilling operations, as well as routine production activities. A special de minimis rule applies for determining the amount of an EHS present in a mixture for purposes of the EPCRA Section 302 notice. See 40 *CFR* §355.30(e).

Notice to the SERC and LEPC is due within 60 days of when the EHS is first present in a TPQ. If an EHS present because of temporary activities is no longer present when the notice is due because those activities, such as a reservoir fracturing procedure, are complete, the facility must nevertheless provide the proper notice, designate a coordinator, and advise the SERC and LEPC that the EHS is no longer present in threshold quantities.

6.7 HAZARDOUS CHEMICAL REPORTING (SECTIONS 311 AND 312)

The triggers for hazardous chemical reporting under EPCRA sections 311 and 312 are such that the requirements affect virtually all E&P operations. The requirements apply if a facility:

- is required to prepare or have available a Material Safety Data Sheet (MSDS) for a hazardous chemical under the Hazard Communication Standard adopted by the Occupational Safety and HealthAdministration (OSHA),[88] and
- has an OSHA hazardous chemical present in threshold quantities of 10,000 pounds, or an EHS present in threshold quantities of 500 pounds or the TPQ, whichever is lower.

Because crude oil and most chemicals associated with E&P operations qualify as OSHA hazardous chemicals, the requirements affect almost all E&P facilities.

6.7.1 Submitting MSDSs or a List of Hazardous Chemicals (Section 311)

EPCRA section 311 requires a facility to submit copies of MSDSs for chemicals present at reporting thresholds to the SERC, LEPC and local fire department. The reporting threshold is 10,000 pounds for MSDS hazardous chemicals. For EHSs the threshold is set at 500 pounds (approximately 55 gallons) or the TPQ, whichever is lower. The regulations specify that when a facility

[86]Enforcement Policy, at 15.

[87]See 42 U.S.C. §11003. The statute specifies required elements in the emergency plan, such as identification of facilities that pose a risk because of the presence of EHSs, likely EHS transportation routes, and facilities such as hospitals that are at risk because of their proximity to the EHS facilities. Plans also must include procedures for notifying the affected public and evacuation plans. The National ResponseTeam has published a Hazardous Materials Planning Guide, NRT-1 (updated 2001), to aid LEPCs in development of their plans. The publication is available on the EPA's Chemical Emergency Preparedness and Prevention Office website at (http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/index.html).

[88]See 29 *CFR* §1910.1200.

determines whether it contains a TPQ of an EHS, it must aggregate the quantity of the EHS present as a component in all mixtures at the facility and all other quantities of the EHS present at the facility. 40 *CFR* §370.28(c). A facility may report chemical mixtures either by submitting information on each element in the mixture that is a hazardous chemical or by submitting an MSDS for the mixture itself.

A facility subject to the MSDS reporting requirements may elect to file a list of the hazardous chemicals it has on site rather than the actual MSDS for each chemical. The list must identify the substance by its chemical or common name (as provided on the MSDS) and must group the listed substances into five categories of health and physical hazards: fire, sudden release of pressure, reactivity, immediate or acute health effects, and delayed or chronic health effects.

If a facility elects to submit a list of hazardous chemicals, the LEPC may request, and the facility must make available, the requested MSDS. Similarly, any member of the public may request a copy of an MSDS from the local committee.

6.7.2 Hazardous Chemical Inventory Reporting (Section 312)

On March 1 of each year a facility required to submit an MSDS or a list of hazardous chemicals present at the facility also is required to submit an emergency and hazardous chemical inventory form to the SERC, LEPC and the local fire department. The inventory reports information about chemicals present during the previous calendar year. See 40 *CFR* §370.25.

The statute established a two-tiered reporting system. The Tier I form, required to be submitted every year, reports aggregate data on chemicals that fall within the five categories of health and physical hazards. Required information includes:

- an estimate (in ranges) of the maximum amount of chemicals for each category present at the facility at any time during the preceding calendar year,
- an estimate (in ranges) of the average daily amount of chemicals in each category, and
- the general location of hazardous chemicals in each category.

The Tier II Form, required when requested by the SERC, includes chemical-specific information:

- the chemical name or the common name as indicated on the MSDS,
- an estimate (in ranges) of the maximum amount of the chemical present at any time during the preceding calendar year,
- an estimate (in ranges) of the average daily amount of chemical present,
- a brief description of the manner of storage,
- the location of the chemical at the facility, and
- an indication of whether the owner elects to withhold confidential business information from disclosure to the public.

Many states have bypassed the Tier I form entirely and require facilities to submit the Tier II form annually. A facility that has submitted an inventory form must allow inspections by the local fire department upon request. 40 *CFR* §370.25(d). The general public may have access to Tier II information by submitting a written request to either the SERC or LEPC. The regulations, however, place some limits on response to the information requests when the requested information is not already in the hands of the SERC or LEPC. See 40 *CFR* §§370.25, 370.40, and 370.41.

6.7.3 Generic Hazardous Chemical Reporting

When EPCRA regulations were implemented, the E&P industry sought relief from certain reporting standards because its operations presented special reporting problems. E&P operations involve thousands of leases throughout the country with millions of pieces of equipment on the leases. They employ hundreds of contractors who use a wide variety of chemicals at production sites for short periods of time.

API and other trade associations collaborated to develop generic MSDS chemical lists and generic Tier II forms based on categories of chemicals like biocides instead of on individual chemicals. The generic forms identify

- chemical categories typically present in E&P operations,
- physical and health hazards for each category,
- typical maximum daily amount, average daily amount and number of days on site for each category, and
- typical storage locations for each category.

A significant number of states with E&P operations authorized use of the forms. EPA has agreed that a generic reporting approach can meet the hazardous chemical reporting requirements of EPCRA. EPA correspondence setting conditions under which generic reporting is acceptable is reprinted as Appendix G. The generic forms developed by API and the other trade associations in 1989 are reprinted in Appendix H for reference purposes only. A facility operator should consult state officials regarding standards for reporting.

6.8 ENFORCEMENT

Section 325 of EPCRA, 42 U.S.C. §11045, provides for civil, administrative, and criminal penalties for violations, as follows:

- civil penalties for facility owners or operators who fail to comply with the emergency planning requirements,
- civil, administrative, and criminal penalties for owners or operators who fail to comply with the emergency notification requirements,
- civil and administrative penalties for owners or operators who fail to comply with the hazardous chemical reporting requirements,
- civil and administrative penalties for frivolous trade secret claims, and
- criminal penalties for the disclosure of trade secret information.

6.9 CITIZEN SUITS

EPCRA also provides citizens a limited right to sue in federal court to enforce EPCRA provisions. Citizens may bring suit against those who fail to comply with the emergency release notification requirements and the hazardous chemical reporting requirements. Sixty days prior notice must be given to the EPA, the affected State Governor or SERC, and the alleged violator, and suit may not be brought when EPA diligently is pursuing an enforcement action. See EPCRA §326, 42 U.S.C. §10046.

State and local governments also have the right to sue facility owners or operators for failure to comply with emergency planning notification or hazardous chemical reporting requirements; SERCs and LEPCs may sue for failure to provide information required for emergency planning or requested Tier II hazardous chemical information. See EPCRA §326(A)(2), 42 U.S.C. §10046(a)(2).

7 Release Reporting Examples

The following examples of spills and releases were developed to assist the user of this document in understanding the process for making reasonable determinations on reporting releases as required by the Clean Water Act (CWA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Emergency Planning and Community Right-to-Know Act (EPCRA). As noted in several of the examples, the decision to notify (or not notify) is sometimes dependent on professional judgment and, in some instances, may require consultation with legal counsel.

These examples address only federal requirements under the three statutes, and it should be understood that other federal statutes (such as pipeline safety standards), state and local requirements, and applicable requirements in permits, may require submission of additional reports. In addition, although some of the examples mention operations to clean up a release after an incident, they do so only with reference to how such activities affect release reporting obligations. Recommendations on cleanup obligations following a release are beyond the scope of this document.

EXAMPLE 1—Chlorine Release

Event:

A company uses chlorine to treat the water in the utility cooling system at a natural gas processing plant. The injection system is engineered so that approximately 400 pounds of chlorine gas is maintained on site. The injection system is designed to have no releases, and no permit applies to authorize a release of chlorine gas. After several months of operation, a section of copper tubing connected to a chlorine gas cylinder breaks, and before the valve on the cylinder can be shut off, approximately 20 pounds of chlorine gas escapes to the atmosphere from the cylinder.

Key facts:

1. Chlorine (CAS #7782-50-5) is a hazardous substance under the CWA and a CERCLA hazardous substance. It has an RQ of 10 lbs.
2. Chlorine is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
3. The facility maintains a MSDS for the chlorine gas.

Analysis of Other EPCRA Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA requires the person in charge to notify the NRC** because:

   a. the release is to the atmosphere and was not wholly contained;
   b. the release to the atmosphere is not authorized by a permit or other control regulation; and
   c. the amount released exceeds the CERCLA RQ of 10 lbs.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC for any jurisdiction that could be affected by the release because:**

   a. the release is reportable under CERCLA; and
   b. the release was not contained within the bounds of the property.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 requires the facility owner to notify the SERC of the presence of the chemical within 60 days of having chlorine gas onsite because the amount present, 400 pounds, exceeds the 100-lb. TPQ. The facility also must designate a facility emergency coordinator to participate with the LEPC in developing any required emergency response plans.

2. EPCRA §311 and §312 reporting requirements apply because the amount of chlorine onsite, 400 pounds, exceeds the 311/312 reporting threshold for chlorine, the lesser of 500 pounds (approximately 55 gallons) or the 100-lb. TPQ. EPCRA §311 requires the facility to file a MSDS (or list of chemicals) with the SERC, LEPC, and local fire department within three months after the chlorine is onsite. EPCRA §312 requires the facility to file the annual inventory report by March 1 for the prior calendar year.

EXAMPLE 2—Release of a Biocide at a Drilling Location

Event:

During a drilling operation the drilling manager decides to treat the drilling mud with a biocide. Approximately 5,000 pounds of the biocide, which contains formaldehyde and is in liquid form, is delivered to the drilling location. In the process of transferring the biocide to the mixing tanks, the crew spills approximately 1,000 pounds of the material. Because the site of the spill is inside an earthen dike the material soaks into the ground without leaving the site. The site is located on the Texas coast: the top eight ft. of soil is predominantly clay, and the depth to groundwater is 100 ft. After forty-five days of drilling, the well is plugged and abandoned, the drilling rig moves off the site to another location, and the company excavates and disposes of the contaminated soil at a permitted offsite disposal facility.

Key Facts:

1. Formaldehyde (CAS #50-00-0) is a hazardous substance under the CWA and CERCLA. It has an RQ of 100 lbs.
2. Formaldehyde is an EPCRA EHS with a TPQ of 500 pounds and an EPCRA RQ of 100 lbs.
3. The MSDS for the biocide shows that it contains formaldehyde in a concentration estimated to be 20 percent by weight.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release did not reach the waters of the United States.

Note:A report may be required in certain areas if the biocide migrates to groundwater, and if the groundwater has a hydrological connection to surface waters that are waters of the United States. The operator should consult legal counsel to determine whether waters of the United States are involved.

2. **CERCLA requires the person in charge to notify the NRC** because:

   a. the release was not wholly contained (i.e., it soaked into the ground);
   b. the release to the ground is not authorized by any permit or control regulation;
   c. the production waste exclusion does not apply because the release of the biocide occurred before the biocide was mixed with the drilling mud (and before the drilling mud was sent downhole and recovered at the surface); and
   d. the 1,000 pounds of biocide released to the ground contains 200 pounds of formaldehyde (based on the 20 percent by weight concentration reported in the MSDS), an amount that exceeds the 100-lb. CERCLA RQ.

Note: If the material had been delivered in granular form and then recovered after being spilled, it is likely that a CERCLA report would not have been required because the material was wholly contained.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because although the release has to be reported to the NRC under CERCLA, the release resulted in exposure to persons solely within the site on which the facility is located.

Note: If the soil conditions had been different, making contamination of groundwater a possibility, or if the site of the release had not been within the earthen dike, the potential for the release to move offsite could trigger a requirement to report the release under EPCRA.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 requires the facility owner to notify the SERC within 60 days of the biocide being brought onsite because the amount of formaldehyde present, based on the 20 percent by weight concentration, is approximately 1,000 pounds, which exceeds the 500-lb. EPCRATPQ. The facility also must designate a facility emergency coordinator to participate in the LEPC emergency planning process. The requirement applies even if the rig is on location for fewer than forty-five days and the chemical is no longer present by the notification deadline.
2. EPCRA §311 and §312 reporting requirements apply because the amount brought onsite, 1,000 pounds, exceeds the 311/312 reporting threshold for EHSs, the lesser of 500 pounds (approximately 55 gallons) or the TPQ. The amount onsite exceeds the 500-lb. TPQ, and the facility is required, within three months after the formaldehyde is onsite, to file a MSDS (or list of chemicals) with the SERC, LEPC, and local fire department. The facility also files the annual inventory report required by EPCRA §312 by March 1 for the prior calendar year.

EXAMPLE 3—Release of Mercury within a Meter House

Event:

A company decides to replace all mercury meters with other devices out of a concern that the meters containing mercury may be a source of soil contamination if releases were to occur due to well surges or during meter calibration. During change-out operations, field personnel drain the mercury from the meters into one-pint containers. Inadvertently, a pumper drops one of the pint containers inside a meter house, spilling approximately one-half pint of mercury. The meter house has a concrete floor and the pumper is able to retrieve the spilled mercury.

Key Facts:

1. Mercury (CAS #7439-97-6) is not a hazardous substance under the CWA.
2. Mercury is a CERCLA hazardous substance with an RQ of 1 pound.
3. Mercury is not an EPCRA EHS.
4. Mercury is an OSHA hazardous chemical.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because mercury is not a CWA hazardous substance.
2. **CERCLA does not require the person in charge to notify the NRC** because the release was wholly contained by the meter house and the concrete floor.

Note: The release exceeds the 1-lb. reportable quantity and is not authorized by any permit or control regulation; accordingly, if a meter house doesnothaveaconcretefloorthespillmayhavetobereportedtotheNRCunderCERCLAbecausethereleasewouldnotbewhollycontained.

3. **EPCRA §304 does not require the facility to report the release to the SERC and LEPC** because the release resulted in exposure to persons solely within the boundaries of the facility.

Note:A notice to the SERC and LEPC may be required if the meter house does not have a concrete floor and if it is possible for the release to result in exposure to persons beyond the boundaries of the facility.

Analysis of Other EPCRA Reporting Requirements:

1. No EPCRA §302 requirements apply because mercury is not an EHS.
2. No EPCRA §311 and §312 reporting requirements apply because, although the operator has a material safety data sheet for mercury indicating that it is a hazardous chemical under the OSHA hazard communication program, the facility does not have 10,000 pounds of mercury onsite, which is the 311/312 reporting threshold for a hazardous chemical that is not an EHS.

EXAMPLE 4—Release from a MethanolTank

Event:

Because of problems with freezing wellheads and flowlines, an operator decides to install a methanol distribution system. The system includes a 5,000-gallon methanol storage tank. The transfer hose from the transport trailer to the tank ruptures while the tank is being filled, releasing 1,700 gallons of methanol. The methanol does not all evaporate and some of it flows beyond the boundaries of the easement where the tank is located. The location is not near “waters of the United States.”

Key Facts:

1. Methanol (CAS #67-56-1) is not a CWA hazardous substance.
2. Methanol is a listed CERCLA hazardous substance with an RQ of 5,000 lbs.
3. Methanol is not an EPCRA EHS.
4. Methanol is an OSHA hazardous chemical.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because methanol is not a CWA hazardous substance.

Note: Even if the release had reached the waters of the United States, no notice would be required under the CWA because methanol is not a CWA hazardous substance.

2. **CERCLA requires the person in charge to notify the NRC** because:

   a. the release is to the environment because it is not wholly contained; and
   b. the release exceeds the CERCLA RQ.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC for any jurisdiction that could be affected by the release** because:

   a. the release is reportable under CERCLA; and
   b. the release is not contained within the boundaries of the facility.

Note: Although the material was spilled from a transport trailer, the transport had reached its final destination; therefore, the "transportation exclusion" of EPCRA section 327 is not applicable. If the spill had occurred during transport to the site, it would have been reported to the 911 emergency service instead of the SERC and LEPC. Note that the spill is still reportable to the NRC because CERCLA does not recognize any transportation exclusions.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not impose any requirements on the facility owner because methanol is not an EHS.
2. EPCRA §311 and §312 reporting requirements apply because methanol is an OSHA hazardous chemical, and it is present in a quantity greater than 10,000 pounds, which is the 311/312 reporting threshold for a hazardous chemical that is not an EHS. The operator must provide the SERC, LEPC and local fire department a MSDS or list of OSHA hazardous chemicals within three months of the methanol being onsite. An EPCRA 312 annual inventory report should be filed by March 1 for the prior calendar year.

EXAMPLE 5—Release of Crude Oil

Event:

During the night a leak develops in an east Texas crude oil gathering line. The next morning a pipeline employee on routine rounds notices the leak and takes actions to stop the flow of oil to the line. The pipeline operator estimates that between 10 to 30 barrels of oil have leaked and spread out over a half acre. The closest stream is over a mile away and the topography is such that the potential for any oil reaching the stream is judged to be negligible. The weather is overcast, but no rain is expected for at least two days. Because the line is located in a hay field that has been plowed recently, the majority of the crude soaks into the topsoil.

Key Facts:

1. Crude oil is subject to the release reporting requirements of the CWA.
2. Crude oil is not a CERCLA hazardous substance.
3. From a prior analysis the pipeline operator knows that the crude oil contains no EHSs and 0.2% benzene by weight.
4. Crude oil is an OSHA hazardous chemical.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release did not reach the waters of the United States.

Note: If the crude oil reaches the waters of the United States, such as because rainfall occurring before cleanup is completed causes runoff from the oil-saturated soil to wash a harmful quantity of oil into the waters of the United States (i.e., it creates a sheen, film or discoloration on the surface, causes a sludge or emulsion to be deposited beneath the surface, or violates applicable water quality standards), the operator would have to report the release to the NRC under the CWA.

2. **CERCLA does not require the person in charge to notify the NRC** because although the release was not wholly contained, crude oil is covered by the petroleum exclusion in CERCLA.

3. **EPCRA §304 does not require the facility to report the release to the SERC and LEPC for any jurisdiction that could be affected by the release.** No petroleum exclusion applies under EPCRA; however, no EHSs are present in the crude oil to trigger an EPCRA release reporting requirement.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply because neither the crude oil nor its constituents is an EHS.
2. Although crude oil is an OSHA hazardous chemical, EPCRA's transportation exclusion may eliminate the need for the pipeline facility operator to file notification and inventory reports under EPCRA sections 311 and 312. The facility operator should consult the definition of pipeline in relevant Department of Transportation regulations to determine whether the facility qualifies as a transportation facility covered by the transportation exclusion.

EXAMPLE 6—Release of Produced Water

Event:

Early in the evening an overflow valve at a crude oil production tank battery fails, allowing approximately 150 barrels of produced water to spill into an adjacent cotton field in west Texas. The produced water contains enough oil that a sheen is present on top of the standing water. Before a vacuum truck can pick up the produced water, a summer thunderstorm produces enough rainfall to flush the entire spill into a nearby flowing creek.

Key Facts:

1. The produced water does not contain any listed CWA hazardous substances other than those that are constituents of the crude oil that floats on the produced water.
2. Produced water is not a listed CERCLA hazardous substance, but it contains CERCLA hazardous substances. In this case, none of the hazardous substance constituents in the 150 barrels of produced water exceed the RQ because they are present in very small amounts.
3. The produced water does not contain any EPCRA EHSs.
4. In this case, the produced water is not a waste because the operator reinjects the produced water to maintain reservoir pressure.

Analysis of Release Reporting Requirements:

1. **The CWA requires a report to the NRC** because the spill and subsequent rainstorm caused a release of a harmful quantity of oil to the waters of the United States. A harmful quantity of oil is one that creates a film, sheen or discoloration on the surface of the water, causes a sludge or emulsion to be deposited beneath the surface of the water, or violates applicable water quality standards.

Note: If the spill had been picked up before the rainstorm and the oil did not create a visible sheen on the waters of the creek, then the release would not trigger notice requirements under the CWA. If the produced water did not contain enough crude oil to constitute a harmful quantity of oil (i.e., it creates a sheen, film or discoloration on the surface, causes a sludge or emulsion to be deposited beneath the surface, or violates applicable water quality standards), the spill also would not require notice under the CWA. If, however, the produced water contained any other CWA listed hazardous substance and the amount reaching the waters of the United States contained an RQ of that hazardous substance, notice would be required to the NRC under the CWA.

2. **CERCLA does not require the person in charge to notify the NRC** because the released crude oil is covered by the petroleum exclusion, and the release does not include an RQ of any CERCLA hazardous substance that is not a constituent of the crude oil.

Note: The analysis of the release scenario differs if the produced water is a waste. If the produced water is a waste, the petroleum exclusion does not exempt from CERCLA reporting requirements the crude oil and its constituents that are floating on top of the produced water. Another exclusion may, however, apply. An argument exists that RCRA-exempt production wastes are excluded from the definition of hazardous substance and do not have to be reported under CERCLA. EPA has not always treated the RCRA-exempt wastes as excluded from the definition of hazardous substance under CERCLA. See 5.4. The operator should consult legal counsel and be familiar with his company's position on the treatment of RCRA-exempt waste under CERCLA.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because:

   a. the release is not reportable under CERCLA; and
   b. no release of an EPCRA EHS occurred.

Note: Any produced water release reported to the NRC under CERCLA also should be reported to the SERC and LEPC under EPCRA.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 requirements do not apply because the produced water does not contain an EHS.
2. EPCRA §311 and §312 reporting requirements apply if the facility operator maintains a MSDS for produced water.

EXAMPLE 7—Release of Sour Crude Oil to a Dry Creekbed

Event:

In the Panhandle Region of north Texas, a lease operator discovers crude oil at the perimeter of a dry creek. It is estimated that approximately 500 barrels of sour crude has been released as a result of external corrosion on a crude oil gathering line. The crude oil spill extended within the boundary of the dry creek for approximately 150 ft. and pooled at certain points. Vegetation along the path of the spill also has been affected. The lease operator notifies the gathering line operator and begins clean-up operations immediately, recovering 200 barrels of free oil within a few hours. The vegetation remains oiled, and the sandy soil is not excavated and removed for disposal.

Key Facts:

1. The crude oil contains approximately 10 mcf of gas (250 ppm hydrogen sulfide) per barrel of crude. Based on a gas analysis, there are 400 cf of natural gas per lb.-mole of gas. Based on 500 barrels of crude released and 10 mcf of gas per barrel of crude, approximately 12,500 lb.-moles of gas have been released. Because the gas contains 250 ppm of hydrogen sulfide, approximately 106 pounds of hydrogen sulfide have been released into the atmosphere.
2. Hydrogen sulfide (CAS# 7783-06-4) is a hazardous substance under the CWA and CERCLA with an RQ of 100 lbs.
3. Hydrogen sulfide is an EHS with a TPQ of 500 pounds and an EPCRA RQ of 100 lbs.
4. The operator maintains a MSDS for the sour crude oil.

Analysis of Release Reporting Requirements:

1. **The CWA may require a report to the NRC** because:

   a. the EPA definition of waters of the United States includes "intermittent streams";
   b. generally court decisions have affirmed that definition and held, in certain fact situations, that normally dry creek beds are waters of the United States; and
   c. the amount of crude oil remaining in the dry creek bed would qualify as a "harmful quantity" of oil in the event that rainfall causes flow in the creek (i.e., it would create a sheen, film or discoloration on the surface or a sludge or emulsion beneath the surface of the water, or would violate water quality standards).

Note: If an operator determines that it is not required to notify the NRC of the release under the CWA because there is no water presently in the creek bed, the operator must, of course, take additional steps to ensure that no oil remains in the soil or on plants before the next rainfall. That requirement applies in addition to any other cleanup obligations that may apply to the release.

2. **CERCLA does not require the person in charge to notify the NRC** because the petroleum exclusion applies to exclude the release of both crude oil and its constituent, hydrogen sulfide.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC** for any jurisdiction that could be affected by the release because:

   a. the release of hydrogen sulfide was not contained (within the bounds of the property);
   b. the release of hydrogen sulfide to the atmosphere is not authorized by any permit or control regulation;
   c. no petroleum exclusion applies under EPCRA to exempt from notice requirements a release of an RQ of an EHS; and
   d. the release exceeded the EPCRA RQ for hydrogen sulfide of 100 lbs.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 may not apply because the transportation exclusion in EPCRA §327 may eliminate the need for the pipeline operator's notifying the SERC of the presence of a TPQ of hydrogen sulfide, an EHS. The facility operator should consult the definition of pipeline in the relevant Department of Transportation regulations to determine whether the facility qualifies as a transportation facility covered by the transportation exclusion.
2. EPCRA §311 and §312 reporting requirements may not apply because of the transportation exclusion in EPCRA §327, even though crude oil is an OSHA hazardous chemical. The facility operator should consult the relevant Department of Transportation regulations to determine whether the facility qualifies as a transportation facility covered by the transportation exclusion.

EXAMPLE 8—Sour Gas Burned in a Flare

Event:

On the first day of the month, a gas sweetening unit experiences a compressor failure, causing the entire facility to shut down. During the shutdown process, the incoming gas (3,000 mcf/day) is routed to the flare system.The flare ignites the gas and releases sulfur dioxide, nitrogen oxides, and small amounts of hydrogen sulfide to the atmosphere. The facility flares gas for approximately six hours until the operator restarts the compressor and the flaring ceases. The facility has a federally-enforceable permit which contains stipulations for periodic releases due to facility upsets. The permit authorizes no more than one upset per calendar month and a release of no more than 524 lbs. of SO_2, 5.6 lbs. of H_2S, and 38.4 lbs. of NO_x per event.

Key Facts:

1. Hydrogen sulfide (CAS# 7783-06-4) is a hazardous substance under both the CWA and CERCLA and has an RQ of 100 lbs.
2. Hydrogen sulfide is an EHS under EPCRA with a TPQ of 500 pounds and an EPCRA RQ of 100 lbs.
3. Sulfur dioxide (CAS# 7446-09-5) is not a hazardous substance under either the CWA or CERCLA.
4. Sulfur dioxide is an EHS under EPCRA with a TPQ of 500 pounds and an EPCRA RQ of 500 lbs.
5. Nitrogen oxide (CAS # 10102-43-9) is a CERCLA hazardous substance with an RQ of 10 lbs.
6. Nitrogen oxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
7. Nitrogen dioxide (CAS # 10102-44-0) is a hazardous substance under the CWA and CERCLA with an RQ of 10 lbs.
8. Nitrogen dioxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
9. The operator maintains a MSDS for sour natural gas.
10. 10. The latest gas analysis indicates that the hydrogen sulfide content of the incoming gas is 1.0 % by weight.
11. A process engineer determines that, based on the facility's production rate of 3,000 mcf per day and a flame efficiency of 98%, flaring the gas results in a release of 779.9 lbs. of SO_2, 58 lbs. of NO_x, and 8.5 lbs. of H_2S during the six hours of flaring. The process engineer does not have information to determine what portion of the NO_x released is nitrogen oxide and what portion is nitrogen dioxide.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** *because:*

   a. the release of hydrogen sulfide and nitrogen dioxide is to the atmosphere, not to the waters of the United States; and
   b. sulfur dioxide and nitrogen oxide are not hazardous substances under the CWA.

2. **CERCLA does not require the person in charge to notify the NRC** of the release of hydrogen sulfide or of the release of sulfur dioxide because:

   a. the released hydrogen sulfide is a constituent of crude oil and is covered by the petroleum exclusion; and
   b. sulfur dioxide is not a hazardous substance under CERCLA.

CERCLA requires the person in charge to notify the NRC of the release of nitrogen oxides because:

   c. the release of nitrogen oxides up to the limit of 38.4 lbs. is a federally permitted release;
   d. however, the release of 19.6 lbs. pounds of nitrogen oxides in excess of the permit limit exceeds the 10-lb. RQ for nitrogen oxide and nitrogen dioxide, and
   e. the administrative reporting exemption for uncontrolled releases of nitrogen oxides does not apply to exempt the release from notification because the release is the result of a malfunction.

Note: EPA's guidance on federally permitted releases to air suggests that EPA may not consider emissions from operation of a flare in an upset conditionafederallypermittedreleaseunlessthepermitorcontrolregulationlimitstheemissionsfromtheflare. Becauseinthiscasethepermit imposes an emission limit on the operation of a flare during an upset condition, the release of up to 524 lbs. of sulfur dioxide, 38.4 pounds of nitrogen oxides, and 5.6 pounds of hydrogen sulfide is a federally permitted release. The release of 19.6 lbs. of nitrogen oxides over the permittedamountisnotafederallypermittedrelease. Itisreportablebecauseitexceedsthe10-lb.RQ. Iftheoperatorhadinformationtoidentifywhat component of the release was nitrogen oxide and what component was nitrogen dioxide, she may be able to demonstrate that the release of neither component exceeded the 10-lb. RQ.

Note: If another upset event occurs within the same calendar month, any amounts of sulfur dioxide, nitrogen oxides, or hydrogen sulfide releasedina24-hourperiodinexcessoftheRQwouldtriggeranotificationrequirementbecausethepermitimposesalimitofnomorethanone upset in a calendar month.

3. **EPCRA §304 does not require the facility to report the release of hydrogen sulfide or sulfur dioxide to the SERC or LEPC** because:

a. although the released hydrogen sulfide is not exempted from EPCRA notification requirements by a petroleum exclusion, the 2.9 lbs. of hydrogen sulfide released in excess of the 5.6 lbs. authorized by the permit does not exceed the 100-lb. EPCRA RQ; and
b. although the release of 779.9 lbs. of sulfur dioxide exceeds the federally enforceable permit limit of 524 lbs. by 255.9 lbs., the release in excess of the permit limit does not exceed the 500-lb. EPCRA RQ.

EPCRA requires the facility to report the release of nitrogen oxides to the SERC and LEPC of the release of nitrogen oxides because

c. the release of nitrogen oxides in excess of the permit limit that also exceeds the 10-lb. RQ for nitrogen oxide and nitrogen dioxide is subject to notification under CERCLA.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 may apply if the process vessels and piping at the facility contain 500 pounds, the TPQ, of hydrogen sulfide. In such a case, the facility operator would notify the SERC of the presence of the hydrogen sulfide and designate a facility emergency coordinator. Even though sulfur dioxide, nitrogen oxide and nitrogen dioxide are EHSs, no EPCRA §302 requirements apply to them because the facility operator is not required to maintain MSDSs for combustion byproducts.
2. EPCRA §311 and §312 reporting requirements apply to natural gas if it is present in the facility equipment in quantities of 10,000 pounds, the 311/312 reporting threshold for OSHA hazardous chemicals that are not EHSs. Reporting requirements apply to the hydrogen sulfide in the natural gas stream if it is present in quantities of 500 lbs. The operator must provide the SERC, LEPC and local fire department a MSDS or list within three months of the natural gas and the hydrogen sulfide being onsite. An EPCRA 312 annual inventory report should be filed by March 1 for the prior calendar year. Even though sulfur dioxide, nitrogen oxide and nitrogen dioxide are EHSs, no EPCRA §311 or 312 requirements apply to them because the facility operator is not required to maintain MSDSs for combustion byproducts.

EXAMPLE 9—Ruptured Diesel FuelTank at a Drill Site

Event:

Diesel is delivered to a drilling rig for use as a fuel and as an additive to the drilling mud. The rig has two 10,000-gallon diesel storage tanks onsite. A wireline truck inadvertently backs over the earthen dike around the drill site and into one of the storage tanks and causes the tank to fail catastrophically. Approximately 4,500 gallons of fuel is spilled on the ground. The break in the dike is near the edge of a slope leading down to a playa lake that is not connected hydrologically to any waters of the United States. The majority of the fuel flows down the slope to the playa lake.

Key Facts:

1. Diesel fuel qualifies as oil and is subject to the release reporting requirements of the CWA.
2. Diesel fuel is not a CERCLA hazardous substance or an EPCRA EHS.
3. The facility operator maintains a MSDS for the fuel, which qualifies as an OSHA hazardous chemical.
4. Most diesel fuels contain some benzene. Because the MSDS does not list benzene as a constituent, it is presumed to be less than 0.1 percent by weight. Assuming that the maximum content of benzene is 0.099 percent, the amount of benzene released in 4,500 gallons of fuel is 31 lbs.
5. Benzene (CAS #71-43-2) is a CERCLA hazardous substance with an RQ of 10 lbs.
6. Benzene is not a EPCRA EHS.

Analysis of Release Reporting Requirements:

1. **The CWA may not require a report to the NRC** because the release of oil arguably has not reached the waters of the United States. According to the Supreme Court's decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, an isolated playa lakebed may not qualify as waters of the United States. See 4.3. The facility operator should, however, consult with legal counsel before making a determination not to notify the NRC of the release.

Note: The conclusion may be different if the release occurs in an area that is not immediately adjacent to waters of the United States, where the soil is porous, and there is potential for the fuel to percolate through the soil to groundwater with a hydrological connection to the waters of the United States. Court decisions in certain jurisdictions have held that groundwater qualifies as waters of the United States if it has a hydrological connection to jurisdictional surface water. The facility operator should keep that possibility in mind when developing a remediation plan for cleaning up a release of diesel fuel that has a potential to reach surface waters of the United States. In designing a plan to cleanup released fuel, the operator should prevent contamination of groundwater that connects to surface water.

2. **CERCLA does not require the person in charge to notify the NRC** because diesel fuel and its hazardous substance constituent, benzene, are covered by the petroleum exclusion.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because:

   a. the release is not reportable under CERCLA; and
   b. the release does not contain an EHS.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply because there is no EHS present in the fuel.
2. EPCRA §311 and §312 reporting requirements apply because diesel fuel is an OSHA hazardous chemical. The two 1,000-barrel tanks hold in excess of 10,000 pounds, which is the 311/312 reporting threshold for OSHA hazardous chemicals that are not EHSs. The operator should file a MSDS, or list of chemicals, with the SERC, LEPC and fire department within 3 months of first having the diesel fuel onsite. The facility also files the annual EPCRA §312 inventory by March 1 for the prior calendar year.

EXAMPLE 10—Spill of Diethanolamine to the Ground

Event:

A company installs an amine unit to treat natural gas from a production facility to remove carbon. In the process of filling the amine unit, operations staff spill approximately five gallons of diethanolamine on the ground. Because the ground is covered with pea gravel, no effort is made to recover the amine for use.

Key Facts:

1. Diethanolamine (CAS #111-42-2) is not a CWA hazardous substance.
2. Diethanolamine is a CERCLA hazardous substance with an RQ of 100 lbs.
3. Diethanolamine is not an EHS.
4. The facility maintains a MSDS for the diethanolamine.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because diethanolamine is not a CWA hazardous substance.
2. **CERCLA does not require the person in charge to notify the NRC** because:

   a. the release does not exceed the CERCLA RQ of 100 pounds; and
   b. the soil and gravel mixed with diethanolamine is not a listed hazardous waste or a waste exhibiting RCRA characteristics.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because no CERCLA release reporting requirements apply and diethanolamine is not an EPCRA EHS.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply because diethanolamine is not an EHS.
2. EPCRA §311 and §312 reporting requirements apply only if there is more than 10,000 pounds of the chemical at the facility. The 10,000 pound 311/312 reporting threshold applies because diethanolamine is an OSHA hazardous chemical, but not an EHS.

EXAMPLE 11—NO_x Emissions from a Steam Generator

Event:

A company's steam generators and engines have air permits with numerical limits for nitrogen oxides (NO_x) expressed as lbs./MMBTU. Steam generator #1, which burns natural gas at a rate of 62.5 MMBtu/hour, is authorized to emit 0.036 lb./MMBtu, or 54 pounds in a 24-hour period. In a routine monthly emission check, the operator gets readings with a portable analyzer indicating that the steam genereator is emitting NO_x at a rate of 0.044 lb./MMBtu. Over a 24-hour period the indicated rate of emissions would result in release of 66 pounds of NO_x, 12 pounds over the 54-lb. limit. The portable analyzer does not indicate what portion of the emissions is NO and what is NO_2.

The facility's permit requires the operator to perform monthly screening emission checks with a portable analyzer. If a monthly check with the portable analyzer shows emissions above the permit limits, the facility is required to make operating adjustments to lower the emissions to the permit limit. If, after adjustments, a retest with the portable analyzer does not show adequate emission reductions, the operator must schedule a source test using the EPA reference method test to determine if the source is in com-

pliance. The reference method test is the only test method authorized by the federally enforceable permit for determining whether a source is in compliance.

Key Facts:

1. Nitrogen oxide (CAS # 10102-43-9) is a CERCLA hazardous substance with an RQ of 10 lbs.
2. Nitrogen oxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
3. Nitrogen dioxide (CAS # 10102-44-0) is a hazardous substance under the CWA and CERCLA with an RQ of 10 lbs.
4. Nitrogen dioxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because it is a release to the atmosphere not to the waters of the United States.

2. **CERCLA does not require the person in charge to notify the NRC** because the release is a federally permitted release. The release of NO_x does not exceed the permit limit because any such exceedance has to be measured by an EPA reference method test. The permit authorizes continued operation with emissions as measured by the portable analyzer pending verification by a source test.

Note: EPA considers enforceable permit limits and control regulations on NO_x to be enforceable limits and controls on nitrogen oxide (NO) and nitrogen dioxide (NO_2).

Note: If the EPA reference method test verifies that the engine is emitting NO or NO_2 at a rate in excess of the permitted limit for NO_x, and the excess emissions exceed the RQ of 10 pounds for either NO or NO_2, the facility operator would be required to notify the NRC under CERCLA and the SERC and LEPC under EPCRA of the release of NO_x. EPA has, however, stated that it believes that an administrative reporting exemption for certain uncontrolled releases of NO and NO_2 is appropriate, and until it publishes a notice stating otherwise, it will exercise its discretion not to enforce against facility operators for failure to report such emissions.

Note: If the release of NO_x in excess of permitted limits is the result of an accident or malfunction, such as an explosion or uncontrolled emissions due to an equipment fire, the excess emissions would be subject to notification under CERCLA and EPCRA.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because the release is a federally permitted release.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply, even though NO and NO_2 are EHSs, because the facility does not store or use the chemicals.

2. EPCRA §311 and §312 reporting requirements do not apply because the facility operator is not required to maintain a MSDS for NO or NO_2.

EXAMPLE 12—Ammonia Release from an Emission Control Device

Event:

A cogeneration turbine employing selective catalytic reduction to control air emissions has a permit authorizing the release of 200 pounds of ammonia to the atmosphere in any 24-hour period. The operator maintains a one ton cylinder of ammonia onsite. The operator discovers in a routine daily monitoring check of the facility's emission rate that the ammonia injection controller has malfunctioned and caused a release to the atmosphere of ammonia at a rate of 15.4 pounds per hour. The malfunction occurred some time within 24 hours of the last emissions check. Assuming that the emissions rate has been at the 15.4 pounds per hour rate since the last daily check, the operator calculates a release of 370 pounds of ammonia in a 24-hour period.

Key Facts:

1. Ammonia (CAS # 7664-41-7) is a hazardous substance under the CWA and CERCLA and has an RQ of 100 pounds under both the CWA and CERCLA.
2. Ammonia is an EPCRA EHS with a TPQ of 500 pounds and an EPCRA RQ of 100 lbs.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA requires the person in charge to notify the NRC** because:
   a. the release to the environment was not wholly contained;

b. the release of ammonia in excess of 200 pounds within a 24-hour period is not a federally permitted release because it exceeds the limits of the permit; and
c. the release within a 24-hour period is in excess of the permit limit and the amount released in excess of the permit limit exceeds the 100-lb. RQ for ammonia.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC for any jurisdiction that could be affected by the release** because:

a. the release is reportable under CERCLA; and
b. the release had the potential to affect persons beyond the boundary of the facility.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 requires the facility owner to notify the SERC of the presence of the chemical within 60 days of having the ammonia onsite because the amount present, 2,000 pounds, exceeds the 500-lb. TPQ. The facility also must designate a facility emergency coordinator to participate with the LEPC in developing any required emergency response plans.
2. EPCRA §311 and §312 reporting requirements apply because the amount of ammonia onsite, 2,000 pounds, exceeds the 311/312 reporting threshold, 500 pounds, the TPQ for ammonia. EPCRA 311 requires the facility to file a MSDS or a list of chemicals with the SERC, LEPC, and local fire department within three months after the chlorine is onsite. EPCRA §312 requires the facility to file the animal inventory report by March 1 for the prior calendar year.

EXAMPLE 13—NO_x Emissions from a Grandfathered Engine

Event:

An operator installed a 200-horsepower compressor at a production site before enactment of the CAA imposed emission limits or other controls on such engines. Although the regulations and requirements have changed over the years, the engine has not been rebuilt in a way that would cause it to lose its exemption from control requirements. When operating, the engine emits NO_x at a rate of 170 pounds in a 24-hour period.

Key Facts:

1. Nitrogen oxide (CAS # 10102-43-9) is a CERCLA hazardous substance with an RQ of 10 lbs.
2. Nitrogen oxide is and an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
3. Nitrogen dioxide (CAS # 10102-44-0) is a hazardous substance under the CWA and CERCLA with an RQ of 10 lbs.
4. Nitrogen dioxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA requires the person in charge to notify the NRC** unless the EPA policy of enforcement discretion applies because:

a. the emissions are to the environment;
b. the release is not authorized by any permit or control regulation -- EPA guidance on emissions from grandfathered sources states that generally they are not federally permitted releases because the sources are exempt from permit or control requirements; and
c. the release exceeds the 10-lb. RQ for NO and NO_2 in a 24-hour period.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC for any jurisdiction that could be affected by the release** unless the EPA policy of enforcement discretion applies because:

a. the release would be reportable to the NRC under CERCLA; and
b. the release left the property.

Note: EPA has stated that it believes an administrative reporting exemption for certain uncontrolled releases of NO and NO_2 is appropriate. Until EPA issues a notice stating otherwise, it will exercise its discretion not to enforce against facility operators for failure to report such emissions. Note, however, that if the release of NO_x from the grandfathered facility is the result of an accident or malfunction, such as an explosion or uncontrolled emissions due to an equipment fire, the excess emissions would be subject to notification under CERCLA and EPCRA.

Note:The administrative reporting exemption for uncontrolled releases of NO and NO_2 also should apply to NO_x emissions from other engines that EPA may not consider subject to federally enforceable permit or control regulations because they are subject instead to:

- "state-only" controls not incorporated into a state implementation plan, or
- a federal program, such as on Indian lands, where no minor source controls apply.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply, even though NO and NO_2 are EHSs, because the facility does not store or use the chemicals.
2. EPCRA §311 and §312 reporting requirements do not apply because the facility operator is not required to maintain a MSDS for NO or NO_2.

EXAMPLE 14—Benzene Emissions from a Small Glycol Unit

Event:

A natural gas production unit has installed a glycol dehydration unit to strip water from the natural gas stream. The unit uses triethylene glycol to treat the natural gas. The unit qualifies as an area source: its emissions of benzene are below the 10 ton annual major source threshold for hazardous air pollutants. A facility operator conducting a routine test of emissions from the unit determines that the benzene emissions from the glycol unit have increased from 0.4 lb./hr., the rate during the last inspection, to 1.1 lb/hr. The facility operator calculates that the release rate for benzene has increased from 9.6 pounds in a 24-hour period to 26.4 pounds in a 24-hour period.

Key Facts:

1. Benzene (CAS # 71-43-2) is a hazardous substance under the CWA and a CERCLA hazardous substance with an RQ of 10 lbs.
2. Benzene is not an EPCRA EHS.
3. Triethylene glycol is not a hazardous substance under the CWA or CERCLA, or an EHS under EPCRA; however, the facility operator maintain a MSDS for the chemical.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA does not require the person in charge to notify the NRC** because, although the release is to the environment, the benzene released from the glycol still vents of the glycol unit is a fraction of petroleum from the production facility and is covered by the petroleum exclusion.

Note: Even if the petroleum exclusion did not apply to the release, the release should qualify as a federally permitted release. The glycol unit qualifies as an area source of emissions under the National Emissions Standards for HazardousAir Pollutants for Oil and Gas Production at 40 *CFR* pt. 63, subpt. HH, because it emits less than 10 tons per year of benzene.Although the emissions from the glycol unit in this example have increasedtoalevelinexcessoftheRQof10poundsin24hours,theyarestillbelowthe10tonannuallimit,whichtranslatestoanemissionrate of approximately 54 pounds per day.

CERCLA may allow treatment of a release that exceeds the calculated daily rate but that does not exceed the annual limit as a federally permitted release. EPA guidance, however, which states that short-term limits are more likely to limit release of hazardous substances than long-term limits, suggests that EPA may not consider such releases federally permitted and exempt from CERCLA notification requirements.

Note:A release in excess of a minor source threshold is a federally permitted release only if the emissions are from normal operations. Emissions in excess of an RQ are not federally permitted releases if they result from an accident or malfunction.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because, although no petroleum exclusion applies under EPCRA, benzene is not an EHS.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply because neither benzene nor triethylene glycol is an EHS.
2. EPCRA §311 and §312 reporting requirements may apply if triethylene glycol or the recovered hydrocarbon liquids are present at the facility in quantities of 10,000 pounds, which is the 311/312 reporting threshold for OSHA hazardous chemicals that are not EHSs.

EXAMPLE 15—Glycol Unit that Ceases to Qualify as an Area Source

Event:

An operator installed a glycol dehydration unit at a field production facility in January 1995 to treat production from three natural gas wells. The unit uses triethylene glycol to treat the natural gas. In January 2002, the operator recompletes two of the wells

in a new zone that increases their production significantly. The increase in throughput to the glycol dehydration unit causes its emissions to increase from approximately 54 pounds of benzene per day, or under 10 tons per year, the rate of emissions qualifying a facility as an area source, to 65 pounds per day, approximately 12 tons per year. The increased emissions make the unit a major source of benzene subject to the control standards of 40 *CFR* Part 63, Subpart HH. The source is unable to meet all the requirements of Subpart HH until more than one year after its throughput increases make it a major source.

Key Facts:

1. Benzene (CAS # 71-43-2) is a hazardous substance under the CWA and a CERCLA hazardous substance with an RQ of 10 lbs.
2. Benzene is not an EPCRA EHS.
3. Triethylene glycol is not a hazardous substance under the CWA or CERCLA and is not an EPCRA EHS.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA does not require the person in charge to notify the NRC** because, although the release is to the atmosphere, the benzene released from the vents of the glycol unit is a fraction of petroleum from the production facility and is covered by the petroleum exclusion.

Note: Even if the petroleum exclusion did not apply to the release, the release would qualify as a federally permitted release. A glycol unit the construction or reconstruction of which began before February 6, 1998, has three years from the date it becomes a major source to comply with the Subpart HH standards. 40 *CFR* §63.760(f)(1). Although the emissions from the glycol unit in this example have increased to a level exceeding the limit for area sources by more than 10 pounds in a 24-hour period, the source is subject to a schedule for compliance promulgated under part 112 of the CAA and qualifies as a federally permitted release.

Note: A release in excess of the 10-lb. RQ for benzene would not be a federally permitted release if it resulted from an accident or malfunction.

3. **EPCRA §304 does not require the facility to report the release to the SERC or LEPC** because, although no petroleum exclusion applies under EPCRA, benzene is not an EHS.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 does not apply because neither benzene nor triethylene glycol is an EHS.
2. EPCRA §311 and §312 reporting requirements may apply if the triethylene glycol, or the recovered hydrocarbon liquids, are present at the facility in quantities of 10,000 pounds, which is the 311/312 reporting threshold for OSHA hazardous chemicals that are not EHSs.

EXAMPLE 16—Increased Emissions from a Process Flare Permitted by Rule

Event:

A production facility includes an amine unit to remove contaminants from natural gas. The facility includes a process flare to burn non-condensable gas byproducts stripped from the amine. The facility does not have an individual air permit but is subject to emission limits imposed by regulations that are part of the SIP. Emissions cannot exceed 25 tons per year of SO_2 and 25 tons per year of all other sulfur compounds combined. Additional limits apply to combined volatile organic compounds, to nitrogen oxides and to carbon monoxide.

Emissions from the flare and other sources of sulfur compounds at the facility, in a routine annual emissions check, are found to be 5.5 pounds per hour of sulfur dioxide and 5.1 pounds per hour of all other sulfur compounds combined. Among the other sulfur compounds is hydrogen sulfide, which the operator calculates is emitted at a rate of 4.3 pounds per hour (103.2 pounds in a 24-hour period). The 25 ton per year emission rate that applies to SO_2, and that also applies to all other sulfur compounds combined, is calculated to be 5.7 pounds per hour, or approximately 137 pounds in a 24-hour period.

Key Facts:

1. Hydrogen sulfide (CAS# 7783-06-4) is a hazardous substance under both the CWA and CERCLA and has an RQ of 100 lbs.
2. Hydrogen sulfide is an EHS with a TPQ of 500 pounds and an EPCRA RQ of 100 lbs.
3. Sulfur dioxide (CAS# 7446-09-5) is not a hazardous substance under either the CWA or CERCLA.
4. Sulfur dioxide is an EHS with a TPQ of 500 pounds and an EPCRA RQ of 500 lbs.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the release is to the atmosphere, not to the waters of the United States.
2. **CERCLA does not require the person in charge to notify the NRC**

   a. of the release of 103.2 pounds of hydrogen sulfide because it is a federally permitted release, that is, the release of 103.2 pounds of hydrogen sulfide as part of 122.4 pounds of combined sulfur compounds emitted over a 24-hour period does not exceed the limit of 137 pounds in a 24-hour period that is authorized by the applicable rule.
   b. of the release of sulfur dioxide because it is not a CERCLA hazardous substance.
3. **EPCRA §304 does not require the facility to notify the SERC or LEPC**:

   a. of the release of hydrogen sulfide because it is a federally permitted release.

Note:The petroleum exclusion does not apply to any hydrogen sulfide emissions for purposes of EPCRA reporting.

   b. of the release of sulfur dioxide because it is a federally permitted release and does not, in any event, exceed the EPCRA RQ of 500 lbs.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 notification requirements would apply to the facility if the storage tanks and piping at the facility contain 500 pounds of hydrogen sulfide. In such a case the facility operator would notify the SERC of the presence of the EHS and designate a facility emergency coordinator. EPCRA §302 notification requirements do not apply to sulfur dioxide because the facility does not maintain it onsite.
2. EPCRA §311 and §312 reporting requirements apply to petroleum and other non-EHS chemicals, such as diethanolamine used in the amine unit, for which the facility maintains a MSDS, and which are present in quantities of 10,000 pounds or more. Reporting requirements apply to EHSs present in quantities of the lesser of 500 pounds (approximately 55 gallons) or the TPQ. EPCRA §311 and §312 requirements do not apply to sulfur dioxide because the facility does not maintain a MSDS for it.

EXAMPLE 17—Startup of an Engine Following Maintenance

Event:

A 1,000-horsepower engine with a catalytic converter is shut down for maintenance. During subsequent startup operations, the unit must be run for a period of time before the catalyst can be added. During normal operations with the catalyst, the engine is permitted to emit NO_x at a rate of 4.4 pounds per hour. The permit for the engine allows the operator to run the unit for a period of seven days without the catalyst but does not specify any NO_x emission limit for the engine during that seven-day period. During the startup period the engine releases NO_x at a rate of 17.7 pounds per hour.

Key Facts:

1. Nitrogen oxide (CAS # 10102-43-9) is a CERCLA hazardous substance with an RQ of 10 lbs.
2. Nitrogen oxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.
3. Nitrogen dioxide (CAS # 10102-44-0) is a hazardous substance under the CWA and CERCLA with an RQ of 10 lbs.
4. Nitrogen dioxide is an EPCRA EHS with a TPQ of 100 pounds and an EPCRA RQ of 10 lbs.

Analysis of Release Reporting Requirements:

1. **The CWA does not require a report to the NRC** because the emissions are to the atmosphere, not to the waters of the United States.
2. **CERCLA requires the person in charge to notify the NRC** unless the EPA policy on enforcement discretion applies because:

   a. the release is to the environment;
   b. the release in excess of the applicable permit limit of 4.4 pounds per hour is not authorized by any permit or control regulation; and
   c. the release exceeds the 10-lb. RQ for NO and NO_2 in a 24-hour period.

Note: EPA guidance on federally permitted releases to air states that if a release of a hazardous substance or EHS is exempt from the otherwise applicable limits during startup operations those uncontrolled releases do not qualify for the federally permitted release exemption even if the permit authorizes temporary operations without controls.

Note: EPA has stated that an administrative reporting exemption for certain uncontrolled releases of NO and NO_2 is appropriate, and until EPA issues a proposal or standard for an exemption, it will exercise its discretion not to enforce against facility operators for failure to report such emissions.

3. **EPCRA §304 requires the facility to report the release to the SERC and LEPC** for any jurisdiction that could be affected by the release unless the EPA policy on enforcement discretion applies because:

a. the release would be reportable under CERCLA; and
b. the release was not confined within the boundary of the property.

Analysis of Other EPCRA Reporting Requirements:

1. EPCRA §302 requirements do not apply, even though NO and NO_2 are EHSs, because the facility does not store or use the chemicals and is not required to maintain a MSDS for them.
2. EPCRA §311 and §312 reporting requirements do not apply, even though NO and NO_2 are EHSs, because the facility does not store or use the chemicals and is not required to maintain a MSDS for them.

APPENDIX A—THRESHOLD PLANNING QUANTITIES (TPQS) AND REPORTABLE QUANTITIES (RQS) FOR COMMON OILFIELD CHEMICALS (CURRENT AS OF THE DATE OF PUBLICATION)

CHEMICAL NAME	USE	EPCRA §302 TPQ 40 *CFR* Part 355	EPCRA §304 RQ* 40 *CFR* Part 355	CERCLA RQ 40 *CFR* §302.4	CWA RQ 40 *CFR* §117.3
Acetic acid	WellTreatment	—	—	5,000	5,000
Acrolein	Biocide	500	1	1	1
Ammonia	Biocide	500	100	100	100
Benzene***	Crude oil constituent/ Solvent	—	—	10	10
Calcium hypochlorite	WaterTreatment	—	—	10	10
Carbon disulfide	Solvent	10,000	100	100	100
Chlorine	Water treatment	100	10	10	10
Diazinon	Insecticide	—	—	1	1
Diethanol-amine	Gas treatment	—	—	100	—
Ethylene diamine	Gas treatment	10,000	5,000	5,000	5,000
Ethylene glycol	Gas dehydration	—	—	5,000	—
Formalde-hyde	Biocide	500	100	100	100
Hexane***	Crude oil constituent	—	—	5,000	—
Hydrochloric acid	Well treatment	500 (hydrogen chloride gas only)	5,000 (hydrogen chloride gas only)	5,000	5,000
Hydrogen fluoride	Well treatment	100	100	100	100
Hydrogen sulfide	Byproduct of production	500	100	100	100
Malathion	Insecticide	—	—	100	100
Mercury	Meters	—	—	1	—
Methanol	Hydrate control	—	—	5,000	—
Methyl mercaptan	Gas odorant	500	100	100	100
Nitrogen oxide	Byproduct of combustion	100	10	10	—
Nitrogen dioxide	Byproduct of combustion	100	10	10	10
Parathion	Insecticide	100	10	10	10
PCBs (Poly-chlorinated biphenyls)	Electrical equipment	—	—	1	1
Pyrethrins	Insecticide	—	—	1	1
Sodium hydroxide	Drilling mud additive	—	—	1,000	1,000
Sulfur dioxide	Byproduct of combustion	500	500	—	—
Sulfuric acid	Well treatment	1,000	1,000	1,000	1,000
Toluene***	Crude oil constituent/ Solvent	—	—	1,000	1,000
Xylene***	Crude oil constituent/ Well treatment/ Solvent	—	—	100**	100**

*If no EPCRA §304 RQ is listed, use the CERCLA RQ.
**The RQ for m-Xylene and for o-Xylene is 1,000 pounds; however, the RQ for Xylene, p-Xylene and mixtures is 100 lbs.
***The petroleum exclusion may apply. See 5.3.

APPENDIX B—WHAT INFORMATION TO REPORT TO THE NATIONAL RESPONSE CENTER

The National Contingency Plan specifies the information the NRC will generally need to characterize the release. In addition, the online reporting forms provide useful guidance on the kinds of questions the NRC will solicit in a report. As part of the reporting process, the NRC will ask questions such as:

- What is the date and time of the spill?
- What material(s) was spilled and what is the approximate gross volume?
- What is the physical location of the spill?
- Have there been any injuries or fatalities?
- What is the cause of the incident?
- Is response action currently underway and, if so, what is it?
- What other agencies have been notified, if any?
- Are you reporting this spill for the Company responsible for the spill?

When reporting the spill to the NRC, give the information requested as accurately as possible. The NRC will pass the information on to the EPA or the Coast Guard. Those agencies will then decide if additional action by a government agency is necessary.

Although the regulations for reporting releases under the CWA and CERCLA have not yet specifically authorized online reporting, NRC has made online reporting forms available on its website at http://www.nrc.uscg.mil/index.htm. The forms provide a valuable guide for training personnel who will be called on to report releases to the NRC or to gather information necessary for a report to the NRC. Included are forms for a variety of kinds of releases, such as continuous releases and releases from offshore platforms, vessels, storage tanks, fixed onshore facilities and mobile sources.

Until the status of such reporting is clarified, any online release report should be confirmed by a report that conforms to the requirements of the regulations.

APPENDIX C—ADDRESSES ANDTELEPHONE NUMBERS OF COAST GUARD DISTRICT OFFICES AND EPA REGIONAL OFFICES

Coast Guard District Offices

Dist.	Area of Responsibility*	Address	Telephone
lst	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey (part), NewYork (part), Rhode Island,Vermont	408AtlanticAvenue Boston, MA 02110-3350	617 223 8480
5th	Maryland, New Jersey (part), North Carolina, Pennsylvania (part); Virginia	Federal Bldg., 431 Crawford St. Portsmouth,VA 23705-5004	757 398 6638
7th	Florida (part), Georgia (part), South Carolina	909 S.E. 1stAvenue Miami, FL 33131-3050	305 536 5651
8th	Alabama,Arkansas, Colorado, Florida (part), Georgia (part), Illinois (part), Indiana (part), Iowa, Kansas, Kentucky, Louisiana, Minnesota (part), Mississippi, Missouri, Nebraska, New Mexico, North Dakota, Ohio (part), Oklahoma, Pennsylvania (part), South Dakota,Tennessee, Texas,WestVirginia,Wisconsin (part),Wyoming	Hale Boggs Federal Bldg. 500 Camp Street New Orleans, LA 70130-3396	504 589 6901
9th	Indiana (part), Illinois (part), Michigan, Minnesota (part), NewYork (part), Ohio (part),Wisconsin (part)	1240 East 9th Street Cleveland, OH 44199-2060	216 902 6045
11th	Arizona, California, Nevada, Utah	Coast Guard Island, Bldg. 50-6 Alameda, CA 94501-5100	510 437 2940
13th	Idaho, Montana, Oregon,Washington	Jackson Federal Bldg. 915 SecondAvenue Seattle,WA 98174-1067	206 220 7090
14th	Hawaii	Prince PJKK Federal Bldg. 300Ala Moana Blvd., Rm. 9212 Honolulu, HI 96850-4892	808 541 2114
17th	Alaska	P.O. Box 25517 Juneau,AK 99802-5517	907 463 2199

* See the map of Coast Guard Districts at http:/www.uscg.mil/vrp/maps/msomap.shtml.

EPA Regional Offices

Region	Area of Responsibility**	Address	Telephone
I	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	John F. Kennedy Federal Bldg., Room 2203 Boston, MA 02203	617 918 1111
II	New Jersey, NewYork, Puerto Rico, U.S.Virgin Islands	290 Broadway NewYork, NY 10007-1866	212 637 3000
III	Delaware, Maryland, Pennsylvania,Virginia,WestVirginia, District of Columbia	1650Arch Street Philadelphia, PA 19103-2029	215 814 5000
IV	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina,Tennessee	Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303-3104	404 562 9900
V	Illinois, Indiana, Michigan, Minnesota, Ohio,Wisconsin	77W. Jackson Blvd., 13th Floor Chicago, IL 60604	312 353 2000
VI	Arkansas, Louisiana, New Mexico, Oklahoma,Texas	Fountain Place 1445 RossAvenue, 7th Floor Dallas,TX 75202-2733	214 655 2200
VII	Iowa, Kansas, Missouri, Nebraska	901 North 5th Street Kansas City, KS 66101	913 551 7003
VIII	Colorado, Montana, North Dakota, South Dakota,, Utah,Wyoming	999 18th Street, Suite 500 Denver, CO 80202-2466	303 312 6312
IX	Arizona, California, Hawaii, Nevada, Guam,American Samoa	75 Hawthorne Street San Francisco, CA 94105	415 974 8021
X	Alaska, Idaho, Oregon,Washington	1200 6thAvenue Seattle,WA 98101	206 553 1200

** See the map of EPA Regional Offices at http://www.epa.gov/epahome/aboutepa.htm#regiontext.

APPENDIX D—EXEMPT AND NONEXEMPT EXPLORATION AND PRODUCTION WASTE

Note: The following information is an excerpt, with some modifications, from the API Environmental Guidance Document on Waste Management in Exploration and Production Operations, Second Edition, February 1997. See also Table ES-1, in EPA's Associated Waste Reports, Executive, Summary, published in January 2000, for additional examples of associated wastes. The document is available on EPA's website at http://www.epa.gov/epaoswer/other/oil/execrep.htm.

EPA's LIST OF EXEMPT EXPLORATION AND PRODUCTIONWASTES

The following oil and gas wastes are listed as exempt in EPA's Regulatory Determination submitted to Congress in June 1988. See "Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and ProductionWastes," 53 Fed. Reg. 25,446 (July 6, 1988).

- Produced water
- Drilling fluids
- Drill cuttings
- Rigwash
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Well completion, treatment and stimulation fluids
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments
- Pits sludges and contaminated bottoms from storage or disposal of exempt wastes
- Workover wastes
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves
- Gas plant sweetening wastes for sulfur removal, including amine, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Cooling tower blowdown
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Packing fluids
- Produced sand
- Pipe scale, hydrocarbon solids, hydrates and other deposits removed from piping and equipment prior to transportation
- Hydrocarbon-bearing soil
- Pigging wastes from gathering lines
- Wastes from subsurface gas storage and retrieval, except for the listed nonexempt wastes
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- Gases removed from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons
- Materials ejected from a producing well during the process known as blowdown
- Waste crude oil from primary field operations and production
- Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment

EPA's LIST OF NONEXEMPT EXPLORATION AND PRODUCTIONWASTES

EPA's Regulatory Determination for exploration and production wastes lists the following wastes as nonexempt. It appears that the EPA concluded waste materials from maintenance of production equipment as well as transportation related wastes from pipeline and trucking operations were nonexempt.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers

- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Boiler scrubber fluids, sludges, and ash
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation, and miscellaneous solids.

EPA did not specifically address in the Regulatory Determination the status of hydrocarbon-bearing material that is recycled or reclaimed by re-injection into a crude stream (used oils, hydraulic fluids, and solvents). Used oil, however, even if otherwise hazardous, may be introduced into the crude oil stream for recycling if the oil is from normal operations and is to be refined with normal process streams at a petroleum refinery. See 40 *CFR* pts. 261 and 279.

Additional ExemptWastes

EPA's lists of exempt and nonexempt wastes are not all-inclusive, and the operator will need to make determinations on a number of other incidental wastes. In deciding which wastes were exempt, it appears that EPA focused on wastes necessary to conduct so-called "primary field operations" (including operations at centralized facilities and gas plants). Using this approach, the following wastes, although not specifically listed as exempt, appear clearly exempt.

- Excess cement slurries and cement cuttings
- Sulfur-contaminated soil or sulfur waste from sulfur recovery units
- Gas plant sweetening unit catalyst
- Soil contaminated by produced water
- Wastes from the reclamation of tank bottoms and emulsions when generated at a production location
- Production facility sweetening and dehydration wastes
- Pigging wastes from producer-operated gathering lines
- Production line hydrotest/preserving fluids utilizing produced water
- Iron sulfide

This section does not address wastes exempt from Subtitle C under other provisions of RCRA. See 40 *CFR* §261.4.

APPENDIX E

EPA GUIDANCE DOCUMENTS ON FEDERALLY PERMITTED RELEASES TO AIR

"GUIDANCE ON THE CERCLA SECTION 101(10)(H) FEDERALLY PERMITTED RELEASE DEFINITION FOR CERTAIN AIR EMISSIONS," 67 FED. REG. 18, 899 (APRIL 17, 2002)

population, infants less than 1–year old, and children (1 to 6) are 69,000 ppb, 19,000 ppb, and 19,000 ppb, respectively, compared with EECs of 0.004 ppb and 15.4 ppb for ground and surface water, respectively.

2. *Infants and children*. In general, FFDCA Section 408 provides that EPA shall apply an additional ten-fold margin of safety (MOS) for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the data base on toxicity and exposure unless EPA determines that a different MOS will be safe for infants and children. Margins of safety are incorporated into EPA risk assessments either directly through use of a margin of exposure (MOE) analysis or through using uncertainty (safety) factors in calculating a dose level that poses no appreciable risk to humans. EPA believes that reliable data support using the standard UF (usually 100 x for combined interspecies and intraspecies variability) and not the additional ten-fold MOE/UF when EPA has a complete data base under existing guidelines and when the severity of the effects in infants or children or the potency or unusual toxic properties of a compound do not raise concerns regarding the adequacy of the standard MOE/safety factor.

i. *Prenatal and postnatal sensitivity*. There is no evidence of increased susceptibility in rats and rabbits to *in utero* and/or postnatal exposure to glyphosate.

ii. *Conclusion*. There is a complete toxicity data base for glyphosate and exposure data are complete or are estimated based on data that reasonably accounts for potential exposures. EPA determined that the 10X SF to protect infants and children should be removed. The FQPA factor is removed because:

- The toxicology data base is complete.
- There is no indication of increased susceptibility of rats or rabbits to *in utero* and/or postnatal exposure to glyphosate (in the prenatal developmental toxicity study in rats, effects in the offspring were observed only at or above treatment levels which resulted in evidence of appreciable parental toxicity).
- The use of generally high quality data, conservative models and/or assumptions in the exposure assessment provide adequate protection of infants and children.

F. International Tolerances

Several maximum residue limits (MRLs) for glyphosate have been established by CODEX in or on various commodities. These limits are based on the residue definition of glyphosate *per se*, without reference to the cation used in product formulations. Based on toxicological considerations, EPA has determined that AMPA no longer needs to be regulated and has deleted AMPA from the U.S. tolerance expression, so that the U.S. residue definition is harmonized with that of CODEX. The proposed rice grain tolerance of 15.0 ppm, is based on crop field trial data obtained using glyphosate-tolerant rice and therefore cannot be lowered to maintain harmonization with the CODEX MRL of 0.1 ppm, for residues of glyphosate in or on this commodity. A CODEX MRL exists for ''hay or fodder (dry) of grasses'' at 50.0 ppm, and on ''maize forage'' at 1.0 ppm, however the proposed U.S. tolerance for ''grass, forage, fodder, and hay group'' at 300 ppm, and ''corn, field, forage'' at 6.0 ppm, are based on higher application rates than those used in the residue studies considered by CODEX, so that harmonization cannot be maintained in these cases. Other than for these specific commodities, the agreement between U.S. tolerances and Codex international residue standards is unaffected by this action.

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ENVIRONMENTAL PROTECTION AGENCY

[FRL–7172–4]

Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA is publishing as an appendix to this notice a guidance on the CERCLA section 101(10)(H) federally permitted release definition for certain air emissions.

FOR FURTHER INFORMATION CONTACT: Visit the OECA Docket Web Site at www.epa.gov/oeca/polguid/enfdock.html or contact the RCRA/UST, Superfund and EPCRA Hotline at (800) 424–9346 or (703) 412–9810 in Washington, DC area. For general questions about this guidance, please contact Lynn Beasley at (703) 603–9086 and for enforcement related questions, please contact Ginny Phillips at (202) 564–6139 or mail your questions to: U.S. EPA, 1200 Pennsylvania Ave., NW., Washington DC 20460, attention Lynn Beasley, mail code 5204G.

SUPPLEMENTARY INFORMATION:

Purpose of this Notice

Today's guidance discusses the federally permitted release definition, which is an exemption to the reporting requirements under two federal emergency response and public right to know laws: section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (''CERCLA''), as amended, 42 U.S.C. 9603 and section 304 of the Emergency Planning and Community Right-to-Know Act (''EPCRA''), 42 U.S.C. 11004. Federally permitted releases are defined in CERCLA section 101(10), which specifically identifies certain releases that are permitted or controlled under several environmental statutes and exempts these releases from the notification requirements of CERCLA section 103 and EPCRA section 304. CERCLA section 101(10)(H) identifies releases that are exempt from reporting because they are subject to permits and regulations under the Clean Air Act (''CAA'').

This guidance reflects our consideration of the general concerns raised by previous **Federal Register** notices on the definition of federally permitted release, the comments submitted on the Interim Guidance and our own experience in implementing the reporting requirements under CERCLA section 103 and EPCRA section 304. This guidance also considers several administrative adjudication decisions on federally permitted releases.

This guidance does not impose new reporting requirements or change the types of releases which are required to be reported under CERCLA section 103 and EPCRA section 304 or the implementing regulations at 40 CFR parts 302 and 355. The legal authority for the reporting requirements arises from those statutory and regulatory provisions, as well as the statutory provisions on federally permitted releases, not from this guidance. This guidance has no effect on CAA permit requirements.

The CAA provides EPA and states the authority to impose a wide variety of permits, regulatory limits and control requirements on emission sources. Whether a particular air release of a hazardous substance or extremely hazardous substance is exempt from CERCLA section 103 and EPCRA section 304 reporting requirements requires a case-by-case determination based on the specific permit language or applicable control requirement. As a consequence, it is difficult to establish a ''bright line'' for when releases qualify for the

CERCLA federally permitted release exemption.

Opportunities for Notice and Comment

The public has had several opportunities to comment on our interpretation of the CERCLA definition of federally permitted release. We originally requested comments on this issue in 1983, when we proposed regulations for CERCLA notification requirements and reportable quantity adjustments. See 48 FR 23552 (May 25, 1983). Subsequently, in a 1988 proposed rule, we addressed some comments on federally permitted releases, explained our understanding of the term in certain circumstances and requested additional comments. See 53 FR 27268 (July 19, 1988). In 1989, we published a Supplemental Notice of Proposed Rulemaking and requested further comment on our interpretation of federally permitted releases. See 54 FR 20305 (July 11, 1989). On December 21, 1999, we published in the **Federal Register** the ''Interim Guidance on the CERCLA section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions'' (''Interim Guidance''), requested comment and announced a public meeting. See 64 FR 71614 (December 21, 1999). We extended the comment period twice, providing the public with over 75 days to consider and prepare their comments on the Interim Guidance. We hosted a public meeting on February 24, 2000, to provide additional opportunities for oral testimony and dialogue. This extensive comment period gave the public an opportunity to raise their concerns to us prior to the publication of this guidance. The guidance addresses many of the comments received on the Interim Guidance.

Changes From the Interim Guidance

This guidance supercedes the Interim Guidance, which is now deemed to be withdrawn. It also differs from the Interim Guidance in several aspects. First, this guidance clarifies the discussion of volatile organic compounds (''VOC'') and particulate matter (''PM'') limits and controls and when releases of hazardous substances which are constituents of these criteria pollutants could qualify for the CERCLA federally permitted release exemption. Second, the Guidance adds a section addressing air emissions of nitrogen oxide (''NO'') and nitrogen dioxide (''NO_2''). Third, whether the exemption can be applied to grandfathered sources will be addressed in a separate forthcoming guidance document. Finally, the guidance explains that certain releases from minor sources subject to a federally enforceable limit may meet the definition of a CERCLA federally permitted release.

The changes from the Interim Guidance are based on the information we received from comments on the Interim Guidance. For example, commentors provided us with examples of permits that have VOC and/or PM control requirements that may also effectively limit or control the emissions of hazardous substances. Therefore, in response to this information, we clarified and expanded our discussion of when a release of a hazardous constituent of VOC or PM could be considered a federally permitted release.

Although releases of NO and NO_2 were not addressed directly in the Interim Guidance, commentors pointed out to us that the current ten pound reportable quantity for CERCLA/EPCRA reporting for NO and NO_2 could result in a large number of notifications of very small releases which could overburden the CERCLA notification system and have negative consequences on the government's ability to focus its resources on more serious releases. We agree with these commentors and are addressing this issue in several ways. First, we agree that permitted air releases of NO and NO_2 that are subject to limits or controls for NO_X are CERCLA federally permitted releases. Second, the Agency supports the proposal of an administrative reporting exemption for certain NO and NO_2 air releases which could result in these releases not being required to be reported under CERCLA section 103 and EPCRA section 304. EPA will move forward with the proposal as soon as resources become available. Finally, we are providing enforcement discretion to certain sources that would otherwise have to report their NO and NO_2 air releases until the administrative reporting exemption process is complete or until we publish a notice saying otherwise.

We also received a significant number of comments concerned with the possible impacts of the Interim Guidance on the notification requirements for releases from CAA minor sources. Commentors have provided us with useful information on the number of minor sources they feel are potentially impacted by this guidance, the treatment of minor sources under federal and state air regulatory programs and why they feel that releases from minor sources meet the definition of federally permitted release under CERCLA. Most commentors believe that emissions from minor sources meet the CERCLA federally permitted release definition. We agree with one group of commentors which has pointed out that in some situations emissions that are in compliance with a federally enforceable threshold limit meet the definition of federally permitted releases. The specific situations are discussed in section V of the guidance.

Finally, we have reformatted this guidance to more clearly respond to the questions raised by commentors, and to make the document easier to read in accordance with President Clinton's June 1, 1998, Executive Memorandum on Plain Language in Government Writing. The word ''we'' in this guidance means EPA. The word ''you'' in this guidance means the reader and, depending on context, may mean state, local or tribal government agencies, industry, environmental groups or other stakeholders.

The Office of Solid Waste and Emergency Response and the Office of Enforcement and Compliance Assurance jointly issue this guidance.

Dated: April 4, 2002.

Marianne Lamont Horinko,

Assistant Administrator for Solid Waste and Emergency Response.

Dated: April 11, 2002.

Sylvia K. Lowrance,

Acting Assistant Administrator for Enforcement and Compliance Assurance.

Appendix A—Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions

Table of Contents

I. Background: CERCLA Section 103 and EPCRA Section 304

Reporting Requirements

The Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601 *et seq.* (''CERCLA'') gives EPA broad authority to respond to releases or threats of releases of hazardous substances. In order to alert federal officials of potentially dangerous releases of hazardous substances, CERCLA section 103 requires facilities to immediately notify the National Response Center (''NRC'') of any release of a hazardous substance in an amount equal to or greater than the reportable quantity

(''RQ'') for that substance. Section 103(a) states, in part, as follows:

> Any person in charge of a vessel or an offshore or an onshore facility shall, as soon as he has knowledge of any release (other than a federally permitted release) of a hazardous substance from such vessel or facility in quantities equal to or greater than those determined pursuant to section 9602 of this title, immediately notify the National Response Center * * *

42 U.S.C. 9603(a). This notification provides release information to the government so that government personnel can evaluate the need for a response and undertake any necessary action in a timely fashion. CERCLA section 103(f) stablishes an alternative reporting scheme for releases that are continuous and stable in quantity and rate. A facility choosing this alternative submits a report on the continuous release in compliance with the regulations at 40 CFR 302.8 and 355.40(a)(2)(iii). CERCLA section 104 authorizes the federal government to respond whenever there is a release or a substantial threat of a release of a hazardous substance.

The Emergency Planning and Community Right-to-Know Act (''EPCRA''), 42 U.S.C. 11001 *et seq.*, also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (''SARA''), and its implementing regulations (40 CFR part 355) was established to ''* * * provide the public with important information on the hazardous chemicals in their communities, and to establish emergency planning and notification requirements which would protect the public in the event of a release of hazardous chemicals.'' H.R. Conf. Rep. No. 962, 96th Cong., 2d Sess. (1986). EPCRA section 304 requires the owner or operator of a facility to immediately notify both the state emergency response commissions (''SERC'') and local emergency planning committees (''LEPC'') whenever the facility has a release of an RQ or more of a CERCLA hazardous substance or an EPCRA extremely hazardous substance (''EHS'') for each area that the release is likely to affect. EPCRA section 304(c) requires the owner or operator of the facility, as soon as practicable after a reportable release, to provide a written follow up notice that includes information on the release, response actions, risks and medical advice.

CERCLA section 101(14) defines the term ''hazardous substance'' by reference to provisions in other environmental statutes that identify substances as hazardous and to CERCLA section 102, which authorizes the EPA Administrator to designate additional hazardous substances when their release may present substantial danger to the public health or welfare or the environment. Pursuant to CERCLA section 102, the Administrator sets the quantities for hazardous substances known as reportable quantities (''RQ'') that, when released, require reporting. If the Administrator has not established an RQ, section 102(b) provides for a default RQ. A table at 40 CFR 302.4 lists the CERCLA hazardous substances with their RQs, and tables at 40 CFR part 355, appendices A & B list the EPCRA EHSs with their RQs.

Immediate notification provides emergency planning authorities with the information they need to respond to the release as quickly as possible in order to minimize the danger to human health and the environment, including dangers to children, other sensitive populations and sensitive ecosystems. The release reports also alert emergency planning personnel to the potential for future risks so that local communities can work with facilities to minimize those risks. Emergency planning authorities can also use the release reports to assess emergency planning needs, to identify and develop appropriate responses to acute as well as chronic exposure and to assess cumulative effects of chemical exposures from many different sources in local areas. EPCRA gives members of the public, including local communities and individuals, the right to know the types and amounts of releases of certain chemicals in their communities.

Exemption for Federally Permitted Releases

Congress exempted ''federally permitted releases'' as defined in CERCLA section 101(10) from the notification requirements in CERCLA section 103 and EPCRA section 304. The definition of federally permitted release in CERCLA section 101(10) specifically identifies releases that are regulated under other environmental programs, such as the National Pollutant Discharge Elimination System of the Clean Water Act; Resource Conservation and Recovery Act; and the Underground Injection Control program of the Safe Drinking Water Act, among others. Our guidance document only addresses certain air releases when the source of the release is regulated under the Clean Air Act (''CAA''). CERCLA section 101(10)(H) defines federally permitted releases under the CAA as:

> any emission into the air subject to a permit or control regulation under section 111, section 112, title I part C, title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act (and not disapproved by the Administrator of the Environmental Protection Agency), including any schedule or waiver granted, promulgated, or approved under these sections.

CERCLA section 101(10)(H); 42 U.S.C. 9601(10)(H)(internal citations omitted).

II. Purpose of Guidance

This guidance document discusses the most common questions we have received from the public on the federally permitted release definition and discusses the principles we consider most important in evaluating whether an air release may be considered a CERCLA section 101(10)(H) federally permitted release.

The Senate committee that considered the CERCLA definition of federally permitted release recognized that the CAA controls air pollutants in several ways:

> In the Clean Air Act, unlike some other Federal regulatory statutes, the control of hazardous air pollutant emissions can be achieved through a variety of means: express emissions limitations (such as control on the pounds of pollutant that may be discharged from a source during a given time); technology requirements (such as floating roof tanks on hydrocarbons in a certain vapor pressure range); operational requirements (such as start up or shut down procedures to control emissions during such operations); work practices (such as the application of water to suppress certain particulates); or other control practices. Whether control of hazardous substance emissions is achieved directly or indirectly, the means must be specifically designed to limit or eliminate emissions of a designated hazardous pollutant or a criteria pollutant. Senate Rep. 848, 96th Cong., 2d Sess. 49 (1980).

Because of the numerous programs under the CAA and their complexity, this guidance does not address each application of the exemption. This guidance is intended for you to use as a general guide to determine, on a case-by-case basis, whether an air release of a hazardous substance qualifies as a federally permitted release. You should consider any permit language as a whole rather than reviewing specific language in isolation and also look at all applicable control requirements in order to determine whether, taken together, they subject a release of a hazardous substance to a relevant CAA permit or control regulation.

The CERCLA, EPCRA and CAA statutory provisions and the EPA regulations described in this guidance contain legally binding requirements. This guidance does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it does not impose new legally-binding requirements on EPA, states or the regulated community, and may not

apply to particular situations depending upon the circumstances. We retain the discretion to adopt approaches that differ from this guidance when appropriate, and may change this guidance in the future. In implementing and enforcing the reporting requirements of the statutes, we will decide what position to take in each particular case based on the applicable statutes and regulations for each release. Interested parties are free to challenge our position in particular situations before the administrative or judicial courts, which ultimately decide how the exemption applies based on the statutes and regulations themselves.

III. Emission Exceedances of Permit Limits and Control Regulations

• I have discovered a violation at my facility which resulted in a release of a hazardous substance in excess of the CAA control regulation. Does this release qualify for the CERCLA section 101(10)(H) federally permitted release exemption?

The EPA Environmental Appeals Board (''EAB'') concluded that ''* * * a release 'subject to' Clean Air Act regulatory requirements must be in conformance with those requirements in order to be exempt from EPCRA and CERCLA emergency reporting provisions * * *'' In re Mobil Oil Corp., EPCRA Appeal No. 94–2, 5 EAD 490, 508, 1994 WL 544260 (EAB, Sept. 29, 1994).

The EAB reasoned that:

To adopt Mobil's argument that any noncomplying air release triggers the [federally permitted release] exemption so long as the pollutant released is addressed in some way in a permit or other Clean Air Act requirement would mean that potentially significant air releases would be exempt from EPCRA reporting obligations, regardless of the extent of the noncompliance or resulting environmental harm.

IV. Criteria Pollutants: Ozone (VOC), PM and NO_X

• My facility has a CAA permit which contains emission limits for VOC and PM and is not subject to NESHAPs. The facility releases are in compliance with the VOC or PM limits. Are the releases of hazardous substances that are also either VOCs or emitted as particulate matter federally permitted releases under CERCLA?

If you are in compliance with your federally enforceable CAA permit limit or control regulation for volatile organic compounds (''VOC'') or particulate matter (''PM''), and those limits or controls include conditions that, when viewed together, control the release of a constituent hazardous substance, such a release would likely qualify as a federally permitted release. The Senate Report language states that to qualify for the CERCLA 101(10)(H) federally permitted release exemption, the means of controlling the hazardous substance emissions must be ''* * * specifically designed to limit or eliminate emissions of a designated hazardous pollutant or a criteria pollutant'' (Senate Report No. 848 at 49). [1] Whether the hazardous substance or EHS is a criteria pollutant or a hazardous air pollutant, the permit limit or control should have the specific effect of limiting or eliminating the releases of the designated hazardous substance or EHS if releases of that hazardous substance or EHS are to qualify for the federally permitted release exemption.

When evaluating whether a release qualifies for the federally permitted release exemption, you should consider whether your federally enforceable CAA permit limit or the applicable control regulations limit or eliminate the release of the designated hazardous substance or EHS. Because of the variety of VOC and PM permit terms and controls, we cannot establish any ''bright line'' tests to determine whether a control regulation or permit limit for VOC or PM is adequate to qualify a release of a designated hazardous substance or EHS as a CERCLA federally permitted release. You should consider whether the permit provides direct or indirect control of a designated hazardous substance or EHS by reviewing the federally enforceable permit limits and control regulations that apply to your releases of hazardous substances or EHSs. Where the federally enforceable permit limits and control regulations, considered together, have the specific effect of limiting or eliminating releases of a hazardous substance or EHS, we will infer that these permit limits and control regulations were designed to achieve that result unless circumstances or evidence clearly indicate to the contrary. The following criteria may help you determine whether a permit limit or control requirement for VOC or PM has the specific effect of limiting or eliminating the release of a hazardous substance or EHS:

• Are the federally enforceable permit limits short term, or do the federally enforceable control requirements minimize the likelihood of a substantial release of a hazardous substance or EHS? If short term limits control releases of the hazardous substances or EHS, even when the limit is expressed in VOC or PM terms, the releases of those substances subject to short term limits would probably qualify for the CERCLA federally permitted release definition.

• Does the permit application or applicable regulation (including supporting materials such as preambles, technical background documents, or details in the permit application that are referenced in the permit) include information that clearly shows that the federally enforceable VOC or PM limits have the specific effect of limiting or eliminating the release of the designated hazardous substance or EHS? If so, then the releases of those substances would probably qualify for the CERCLA section 101(10)(H) federally permitted release exemption.

Permit limits and control regulations usually do not control or limit unanticipated releases such as accidents or malfunctions and for that reason such releases generally do not qualify for the CERCLA section 101(10)(H) federally permitted release exemption.

• If I am in compliance with my federally enforceable permit limit for NO_X issued under Title I of the CAA, would my release of NO and NO2 equal to or greater than the RQ qualify for the CERCLA section 101(10)(H) federally permitted release exemption?

Yes. NO_X permit limits and control regulations under CAA Title I are designed to regulate nitrogen oxide (''NO'') and nitrogen dioxide (''NO_2'') emissions, and their hazardous impacts are taken into consideration when establishing these limits. Thus, NO_X permit limits are sufficient to meet the CERCLA federally permitted release definition for releases of NO and NO_2. Accordingly, your releases of NO or NO_2 are federally permitted releases if they are in compliance with your NO_X permit limit.

V. Minor Sources

• NESHAP, SIP or other CAA permitting requirements are not applicable to my source because my emissions are below an annual threshold limit. Would my releases meet the definition of CERCLA section 101(10)(H) federally permitted release?

Releases in compliance with a federally enforceable threshold as well as releases that comply with any federally enforceable technology requirements, operational requirements, work practices or other control practices, would generally meet the definition of federally permitted releases in CERCLA section 101(10)(H) when the emission threshold limits or eliminates the release of the designated

[1] Hazardous substance or EHS include any pollutant for which a reportable quantity has been established under CERCLA or EPCRA.

hazardous substance or EHS at issue. Releases of hazardous substances or EHSs from the normal operations of such minor sources would qualify for the CERCLA section 101(10)(H) federally permitted release definition when the emissions of designated hazardous substances or EHSs are subject to the threshold limit imposed by law or regulation. For example, under the CAA section 112 ''area sources'' (sources that do not have the potential to emit 10 tons per year or more of any one HAP, or 25 tons per year or more of a combination of HAPs) do not have to comply with NESHAP regulations that apply to major sources only, as long as they stay below that threshold. If their emissions exceed this limit they must comply with the appropriate NESHAP standards for their major source. Releases of designated hazardous substances or EHSs from normal operations are limited by this standard and therefore meet the definition of federally permitted release in CERCLA 101(10)(H).

In addition to thresholds under the CAA section 112, some states have incorporated regulations into their federally enforceable CAA section 110 state implementation plans (''SIPs'') imposing federally enforceable thresholds on air toxics in addition to criteria pollutants such as NO_X or sulfur dioxide (SO_2). As long as a source complies with the emission (or potential-to-emit) thresholds, it does not have to comply with other CAA requirements. These sources are commonly referred to as minor sources. A release of a hazardous substance or EHS resulting from normal operations of a minor source that is in compliance with these SIP regulations generally meet the CERCLA definition of a federally permitted release. See section IV (Criteria Pollutants: VOC and PM) for a discussion on whether VOC or PM limits and controls qualify as CERCLA federally permitted releases for releases of designated hazardous substances or EHSs. If, as discussed in that section, federally enforceable VOC or PM thresholds for minor sources limit emissions of the designated hazardous substance or EHS, these releases would generally meet the definition of federally permitted release in CERCLA section 101(10)(H).

These thresholds, however, generally do not control unanticipated releases such as accidents or malfunctions. The thresholds for minor sources are usually only directed at the facility's releases from its normal operations. Even a very small source could have an accident or malfunction that causes a release of a hazardous substance or EHS that requires an immediate response. The Senate committee report stated that ''Accidents—whatever their cause—which result in, or can reasonably be expected to result in releases of hazardous pollutants would not be exempt from the requirements and liabilities of this bill. Thus, fires, ruptures, wrecks and the like invoke the response and liability provisions of the bill.'' Senate Report No. 96–848 at 48. Area sources and other sources that are subject to a regulation that limits their total annual emissions should generally report their releases at or above the RQ of hazardous substances and EHSs that are caused by accidents, malfunctions, unanticipated releases and other releases that are not part of the facility's normal operations.

VI. Waivers

• My hazardous release is subject to a waiver pursuant to CAA section 111. Would this release qualify for the CERCLA federally permitted release exemption?

Yes, your release subject to the waiver is a CERCLA federally permitted release. Section 101(10)(H) of CERCLA exempts releases subject to ''* * * any schedule or waiver granted, promulgated, or approved under * * *'' the CAA sections 110, 111, 112 and Title I Parts C and D. 42 U.S.C. 9601(10)(H)(internal citations omitted).

As an example, under section 111(j)(1) of the CAA, we may grant a waiver from a New Source Performance Standard (''NSPS'') in order to encourage the use of an innovative technological system or systems of continuous emission reduction. If the technology does not result in an emission reduction that equals or exceeds the applicable standard, we will terminate the waiver and establish a schedule for compliance. The release of a hazardous substance or EHS that would have been controlled by the NSPS without the waiver is a CERCLA federally permitted release, as long as it is in compliance with the terms of the CAA waiver.

VII. Accidents and Malfunctions

• I had an accidental release of a hazardous substance above the CERCLA RQ while I was operating consistent with my accident and malfunction plan. Would my release, qualify for the CERCLA section 101(10)(H) federally permitted release exemption?

In most circumstances, releases resulting from accidents and malfunctions do not qualify for the federally permitted release exemption as defined in CERCLA section 101(10)(H). Releases due to accidents and malfunctions, because they are by definition not anticipated, are difficult to subject to controls which limit or eliminate emissions. Congress did not intend to exempt unanticipated releases such as accidents and malfunctions from CERCLA section 103 and EPCRA section 304. As explained in the Senate Report, ''Accidents—whatever their cause—which result in, or can reasonably be expected to result in releases of hazardous pollutants would not be exempt from the requirements and liabilities of this bill. Thus, fires, ruptures, wrecks and the like invoke the response and liability provisions of the bill.'' Senate Report No. 96–848 at 48.

Although the CAA requires accident and malfunction plans in order to prevent, identify and minimize accidental releases, these plans may be too general to be considered specifically designed to limit or eliminate emissions of a designated hazardous pollutant or a criteria pollutant, and thus releases resulting from accidents and malfunctions would generally not qualify as CERCLA federally permitted releases.

For example, in *In re Borden Chemicals & Plastics, Co.,* [CERCLA]EPCRA 003–1992 (Order Granting Partial Accelerated Decision Concerning Liability, Feb. 18, 1993), the Administrative Law Judge concluded that a release is only a CERCLA federally permitted release if the regulation imposes an emission limit or otherwise controls the release. In Borden, the judge held that the discharge from an emergency relief valve was not a federally permitted release, regardless of whether the discharge violated the CAA, because the release was not controlled by the NESHAP regulation.

Nevertheless, we realize that there are a wide variety of approaches to dealing with accidents and malfunctions in CAA regulations, permits and SIPs. Accordingly, there may be unusual circumstances in which a release of a hazardous substance or EHS that resulted from an accident or malfunction might qualify for the federally permitted release exemption in section 101(10)(H) of CERCLA. Regardless, EPA strongly encourages the prompt reporting of any release associated with an accident or malfunction. In addition, remember that under many provisions in the CAA, in order for a release to qualify as an accident or malfunction it must not be preventable. Releases that were preventable may violate the general duty clause of the CAA.

VIII. Start-up and Shut-down

• I am operating under an approved start-up/shut-down plan. If I have a release of a hazardous substance during a start-up or shut-down, will it qualify as a federally permitted release?

If your release is in compliance with the requirements in an approved start-up/shut-down plan which contains federally enforceable procedures which limit or control your releases during start-up or shut-down, then your release would generally qualify for the federally permitted release exemption. As discussed above, like accidents and malfunctions, emissions from start-ups and shut-downs have been handled in a variety of ways in CAA regulations, permits and SIPs. In many instances, facilities must have a start-up and shut-down plan that sets forth procedures for operating and maintaining a source during those periods. See, e.g., 40 CFR 63.6(e)(3). Unlike malfunctions and accidents which are unpredictable, releases from start-ups or shut-downs may be anticipated and therefore they may be more likely to have emission limitations or controls.

However, if a release of a hazardous substance or EHS is exempt from CAA regulation, or is otherwise not subject to emission limits or other controls during the start-up or shut-down of an operation, then these uncontrolled releases do not qualify for the federally permitted release exemption and must comply with CERCLA and EPCRA notification requirements.

IX. Conclusion

The federally permitted release exemption to the CERCLA section 103 and EPCRA section 304 notification requirements exempts from the notification requirements certain air emissions of hazardous substances and EHSs when the release of the hazardous substance or EHS is subject to a permit or control regulation issued pursuant to CAA sections 111 and 112, Title I part C, Title I part D, or a section 110 SIP. Each facility is responsible for determining whether its hazardous substance and EHS releases qualify for the notification exemption in light of the particular CAA requirements that apply to the facility.

Appendix B—Enforcement Discretion

In a memorandum dated February 15, 2000, and in subsequent extensions dated September 13, 2000, November 30, 2000, April 20, 2001, July 31, 2001, October 10, 2001, January 16, 2002, and March 7, 2002, the Assistant Administrator of the Office of Enforcement and Compliance Assurance exercised discretion to not enforce against facilities for failure to report certain types of air releases until publication of the revised guidance. We are extending this discretion for 180 days following the date of this notice unless the release is:

(1) an unanticipated release, such as an accident or malfunction;

(2) a release in excess of a permit limit or control regulation as described in the EAB decision In re Mobil Oil Corp., EPCRA Appeal No. 94–2, 5 EAD 490 (EAB Sept. 29, 1994);

(3) a release from an emergency relief valve, as described in the ALJ's decision In re Borden Chemicals & Plastics, Co., [CERCLA] EPCRA 003–1992 (Order Granting Partial Accelerated Decision Concerning Liability, Feb. 18, 1993);

(4) a release from a source that is grandfathered and not subject to CAA permits or control regulations; or

(5) a release from a source that is otherwise exempt and not subject to any federally enforceable CAA permit or control regulation.

Furthermore, we recognize that certain uncontrolled air emissions of nitrogen oxide (''NO'') and nitrogen dioxide (''NO_2'') equal to or greater than the ten pound reportable quantity may rarely require a government response. The Agency supports the proposal of an administrative reporting exemption for certain NO and NO_2 air releases which could result in these releases not being required to be reported under CERCLA section 103 and EPCRA section 304. EPA will move forward with the proposal as soon as resources become available. Until the process for an administrative reporting exemption is complete, or until we publish a notice stating otherwise, we will exercise enforcement discretion and not enforce against owners/operators or persons in charge for failure to report air releases of NO and NO_2 that would otherwise trigger a reporting obligation under CERCLA section 103 and EPCRA section 304, unless such releases are the result of an accident or malfunction.

[FR Doc. 02–9322 Filed 4–16–02; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission

April 8, 2002.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act of 1995, Public Law 104–13. An agency may not conduct or sponsor a collection of information unless it displays a current valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Written comments should be submitted on or before June 17, 2002. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all comments to Les Smith, Federal Communications Commission, Room 1–A804, 445 12th Street, SW, Washington, DC 20554, or via the Internet to *lesmith@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection(s) contact Les Smith at 202–418–0217 or via the Internet at *lesmith@fcc.gov.*

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0674.

Title: Section 76.931, Notification of Basic Tier Availability, and Section 76.932, Notification of Proposed Rate Increase.

Form Number: N/A.

Type of Review: Extension of currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents: 11,365.

Estimated Time per Response: 2.25 hours.

Frequency of Response: On occasion reporting requirements; Third party disclosure.

Total Annual Burden: 25,572 hours.

Total Annual Costs: None.

Needs and Uses: 47 CFR 76.931 requires each cable operator to provide written notification to subscribers of the availability of basic tier service by November 30, 1993, or three billing cycles from September 1, 1993, and to new subscribers at the time of installation. This notification is to include: (a) What basic tier service is available; (b) cost per month for basic tier service; and (c) list of all services included in the basic service tier. 47 CFR 76.932 requires each cable operator

APPENDIX E (CONT.)

"GUIDANCE ON THE CERCLA SECTION 101(10)(H) FEDERALLY PERMITTED RELEASE DEFINITION FOR CLEAN AIR ACT "'GRANDFATHERED' SOURCES," 67 FED. REG. 19, 750 (APRIL 23, 2002)

Fixed Utility Services, Pennsylvania Public Utility Commission
Kevin J. Bliss, Washington Representative, Interstate Oil and Gas Compact Commission
Representative from the Federal Bureau of Investigation—Invited
Representative from the Office of Homeland Security—Invited
11 a.m. Facilitated Discussion
30 Minute facilitated discussion among panel members.
11:30 a.m. Question and Answer Session
15 minutes for questions from the audience.
11:45 a.m. Break
12 p.m. Introduction of Next Panel
12:05 p.m. Panel II—Industry and Other Perspectives
Panel Members
John Somerhalder, President, El Paso Pipeline Group
Janice Alperin, Associate General Counsel, El Paso Pipeline Group
Dena Wiggins, General Counsel, Process Gas Consumers
Mary Jane McCartney, Senior Vice President for Gas Operations, Consolidated Edison Company
Michelle Joy, General Counsel, American Oil Pipeline Association
12:55 p.m. Facilitated Discussion
30 Minute facilitated discussion among panel members.
1:25 p.m. Question and Answer Session
15 minutes for questions from the audience.
1:40 p.m. Closing Remarks

[FR Doc. 02–9895 Filed 4–22–02; 8:45 am]
BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. AD02–15–000]

Conference on Emergency Reallocation of Natural Gas; Notice of Technical Conference and Agenda

April 16, 2002.

As announced in the Notice of Conference issued April 2, 2002, staff from the Federal Energy Regulatory Commission (FERC or Commission) and from the Department of Energy (DOE) will convene a technical conference on April 23, 2002 at 9 a.m. in the Commission Meeting Room (2C) to begin discussions with interested parties on whether and how to clarify, expedite and streamline processes for reallocating natural gas among shippers, pipelines, and local distribution companies (LDCs) in today's non-vertically integrated industry in the event of a disaster, whether natural or otherwise.

The conference Agenda is appended to this Notice. Transcripts of the conference will be available from Ace Reporting Company (202–347–3700), for a fee. The transcript will be available on the Commission's RIMS system two weeks after the conference.

For additional information, please contact Carol Connors in the Office of External Affairs at *carol.connors@ferc.gov.*

Magalie R. Salas,

Secretary.

Conference on Emergency Reallocation of Natural Gas April 23, 2002.

9 a.m. Opening Remarks—FERC and DOE
9:10 a.m. Formal Presentations
Presentations on the existing authorities concerning emergency reallocation.
Robert F. Christin, Energy Projects, Lead Counsel, Office of the General Counsel
Donald A. Juckett, Director, Natural Gas and Petroleum Import/Export Activities, Department of Energy, Office of Fossil Energy
9:50 a.m. Panel I—Regulatory Perspectives

Panel Members

Commissioner Charles R. Matthews, Texas Railroad Commission
Phil Teumim, Director, Office of Gas and Water, New York State Public Service Commission
Representative from the Office of Homeland Security—Invited
Representative from the National Governors Association—Invited
10:30 a.m. Facilitated Discussion
30 Minute facilitated discussion among panel members.
11:00 a.m. Question and Answer Session
15 minutes for questions from the audience.
11:15 a.m. Break
11:30 a.m. Introduction of Next Panel
11:35 a.m. Panel II—Industry and Other Perspectives
Richard Smead, Vice President, Regulatory Policy, El Paso Pipeline Group
Janice Alperin, Associate General Counsel, El Paso Pipeline Group
Dena Wiggins, General Counsel, Process Gas Consumers
Mike Linn, President, Allegheny Interests
Mark Haskell, Partner, Brunekant & Haskell (for Natural Gas Supply Association)
Jack Cashin, Senior Manager Policy, Electric Power Supply Association
Richard McMahon, EEI Group Director, Edison Electric Institute
LDC Representative from the Natural Gas Council—Invited
12:55 p.m. Facilitated Discussion
30 Minute facilitated discussion among panel members.
1:25 p.m. Question and Answer Session
15 minutes for questions from the audience.
1:40 p.m. Closing Remarks

[FR Doc. 02–9896 Filed 4–22–02; 8:45 am]
BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Notice of Membership of Performance Review Board

April 17, 2002.

The Federal Energy Regulatory Commission (Commission) hereby provides notice of the membership of its Performance Review Board (PRB). This action is undertaken in accordance with Title 5, U.S.C., Section 4314(c)(4). The Commission's PRB adds the following member: J. Mark Robinson

Magalie R. Salas,

Secretary.

[FR Doc. 02–9901 Filed 4–22–02; 8:45 am]
BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7174–8]

Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Clean Air Act ''Grandfathered'' Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA is publishing as an appendix to this notice a guidance on the CERCLA section 101(10)(H) federally permitted release definition as it applies to grandfathered sources under the Clean Air Act (CAA).

FOR FURTHER INFORMATION CONTACT: Visit the OECA Docket Web Site at www.epa.gov/oeca/polguid/enfdock.html or contact the RCRA/UST, Superfund and EPCRA Hotline at (800) 424–9346 or (703) 412–9810 in

Washington, DC area. For general questions about this guidance, please contact Lynn Beasley at (703) 603–9086 and for enforcement related questions, please contact Ginny Phillips at (202) 564–6139 or mail your questions to: U.S. EPA, 1200 Pennsylvania Ave., Washington DC, 20460, attention Lynn Beasley, mail code 5204G.

SUPPLEMENTARY INFORMATION:

Purpose of this Notice

This notice announces guidance discussing the application of the federally permitted release exemption to air emissions from sources that are ''grandfathered'' under the Clean Air Act (''CAA''). The federally permitted release exemption pertains to the reporting requirements under two federal emergency response and public right to know laws: section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (''CERCLA''), as amended, 42 U.S.C. 9603, and section 304 of the Emergency Planning and Community Right-to-Know Act (''EPCRA''), 42 U.S.C. 11004. Federally permitted releases are defined in CERCLA section 101(10), which specifically identifies certain releases that are permitted or controlled under several environmental statutes. These releases are exempt from the notification requirements of CERCLA section 103 and EPCRA section 304. CERCLA section 101(10)(H) identifies releases that are exempt from reporting because they are subject to permits and regulations under the CAA.

On December 21, 1999, we published in the **Federal Register** the ''Interim Guidance on the CERCLA section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions'' (''Interim Guidance''). The Interim Guidance discussed several issues regarding the application of the federally permitted release exemption to air releases, including whether the exemption applies to releases from grandfathered sources. We requested comment on the Interim Guidance and held a public meeting, giving the public an opportunity to raise their concerns about these issues. On April 17, 2002, the Agency published the ''Guidance on the CERCLA section 101(10)(H) Federally Permitted Release Definition for Certain Air Emissions,'' (67 FR 18899). This Guidance responded to the concerns raised by commentors and superceded the Interim Guidance. The Guidance, however, did not address the question of grandfathered sources and federally permitted releases. The document we publish today discusses grandfathered sources. This document reflects our consideration of the comments submitted on the Interim Guidance regarding that issue, general concerns raised by previous **Federal Register** notices on the definition of federally permitted release, and our own experience in implementing the reporting requirements under CERCLA section 103 and EPCRA section 304. This guidance also incorporates principles articulated in EPA administrative adjudications.

This guidance does not impose new reporting requirements or change the types of releases which are required to be reported under CERCLA section 103 and EPCRA section 304 or the implementing regulations at 40 CFR parts 302 and 355. The legal authority for the reporting requirements arises from those statutory and regulatory provisions, as well as the statutory provisions on federally permitted releases, not from this guidance. Further, whether a particular air release of a hazardous substance or extremely hazardous substance is exempt from CERCLA section 103 and EPCRA section 304 reporting requirements requires a case-by-case determination based on the specific applicable permit language or control requirements. This guidance has no effect on CAA permit requirements.

The Office of Solid Waste and Emergency Response and the Office of Enforcement and Compliance Assurance jointly issue this guidance.

Dated: April 4, 2002.

Marianne Lamont Horinko,

Assistant Administrator for Solid Waste and Emergency Response.

Dated: April 11, 2002.

Sylvia K. Lowrance,

Acting Assistant Administrator for Enforcement and Compliance Assurance.

Appendix A—Guidance on the CERCLA Section 101(10)(H) Federally Permitted Release Definition for Clean Air Act ''Grandfathered'' Sources

Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (''CERCLA'') and section 304 of the Emergency Planning and Community Right-to-Know Act (''EPCRA'') require that facilities notify federal, state and local authorities of releases of hazardous substances, if the amount of the release reaches a designated reportable quantity. Federally permitted releases, as defined in CERCLA section 101(10), are exempt from the CERCLA and EPCRA release reporting requirements. Federally permitted releases are certain releases that are permitted or controlled under several environmental statutes. CERCLA section 101(10)(H) identifies releases that are exempt from reporting because they are subject to permits and regulations under the Clean Air Act (''CAA''). This guidance document addresses the federally permitted release exemption as applied to releases from grandfathered sources under the CAA.

CERCLA section 101(10)(H) defines federally permitted releases under the CAA as: Any emission into the air subject to a permit or control regulation under section 111, section 112, title I part C, title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act (and not disapproved by the Administrator of the Environmental Protection Agency), including any schedule or waiver granted, promulgated, or approved under these sections.

42 U.S.C. 9601(10)(H)(internal citations omitted). The Senate committee report explained the CERCLA definition of federally permitted release for air emissions:

In the Clean Air Act, unlike some other Federal regulatory statutes, the control of hazardous air pollutant emissions can be achieved through a variety of means: express emissions limitations (such as control on the pounds of pollutant that may be discharged from a source during a given time); technology requirements (such as floating roof tanks on hydrocarbons in a certain vapor pressure range); operational requirements (such as start up or shut down procedures to control emissions during such operations); work practices (such as the application of water to suppress certain particulates); or other control practices. Whether control of hazardous substance emissions is achieved directly or indirectly, the means must be specifically designed to limit or eliminate emissions of a designated hazardous pollutant or a criteria pollutant.

Senate Rep. 848, 96th Cong., 2d Sess. 49 (1980).

Generally, releases from grandfathered sources do not meet the definition of federally permitted releases, because Congress exempted those sources, rather than imposing permits or control regulations on them. Congress, in enacting several of the CAA programs, did not require existing pollution sources (unless modified) to install pollution controls. For example, certain requirements of the New Source Performance Standards Program apply specifically to new sources. See 42 U.S.C. 7411(b). Exempted existing sources are known as ''grandfathered'' sources under Title I of the CAA. Congress structured the CAA to force pollution control technology in a cost-effective manner. Thus, the decision not to require those sources was primarily based on economic considerations, *i.e.,* when pollution control technology could be efficiently and cost-effectively engineered into plants. See, for example, H.R. Rep. No. 95–294, at 185. For this reason, a facility's status as a grandfathered source does not necessarily mean that emissions from this facility do not pose a public health hazard.

To the extent that the releases from grandfathered sources are not subject to permits or control regulations, they generally will not meet the CERCLA section 101(10)(H) definition of federally permitted release based on the status of the facility as grandfathered. However, a source that is exempt from a CAA requirement because of its grandfathered status may be subject to

other applicable CAA permits or regulations. If there are federally enforceable permits or control regulations issued under the CAA provisions cited in CERCLA 101(10)(H) that apply to releases of hazardous substances from a grandfathered source, despite the grandfathered source exemption, those releases may qualify as federally permitted releases under CERCLA section 101(10)(H).

[FR Doc. 02–9914 Filed 4–22–02; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7173–5]

Notice of Proposed Prospective Purchaser Agreement Pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as Amended by the Superfund Amendments and Reauthorization Act, Leeds Silver Reclamation Superfund Site

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; request for public comment.

SUMMARY: Notification is hereby given that a Proposed Prospective Purchaser Agreement (PPA) associated with the Leeds Silver Reclamation Superfund Site located in Leeds, Utah was executed by the United States Department of Justice on March 5, 2002. This Agreement is subject to final approval after the comment period. The Prospective Purchaser Agreement would resolve certain potential EPA claims under sections 106 and 107 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA), against Great Western Star, L.L.C. and Stacey L. Eaton, the prospective purchasers (the purchasers).

The settlement would require the purchasers to pay the U.S. Environmental Protection Agency $60,000. The purchasers intend to use the property as part of a plan to create a residential subdivision in the Silver Reef area, which is in close proximity to Leeds. The purchasers will use the Site property as open space within the development.

The purchasers have agreed to provide EPA with an irrevocable right of access to the Site, to conduct all business in compliance with all applicable local, State, and federal laws and regulations, and to exercise due care at the Site. The purchasers will record a certified copy of the PPA with the local Recorder's Office, and thereafter, each deed, title, or other instrument conveying an interest in the property shall contain a notice to successors-in-title not to disturb the implemented Site response.

For thirty (30) days following the date of publication of this document, the Agency will receive written comments relating to the proposed settlement. The Agency's response to any comments received will be available for public inspection at the Superfund Records Center at the U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Denver, Colorado, 80202.

Availability: The proposed settlement is available for public inspection at the U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Denver, Colorado, 80202. A copy of the proposed Agreement may be obtained from Mia Wood, Enforcement Attorney, U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Denver, Colorado, 80202. Comments should reference the ''Leeds Silver Reclamation Superfund Site Prospective Purchaser Agreement'' and should be forwarded to Maureen O'Reilly, Enforcement Specialist, at the U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Denver, Colorado, 80202.

FOR FURTHER INFORMATION CONTACT: Mia Wood, Enforcement Attorney, U.S. Environmental Protection Agency, Region VIII, 999 18th Street, Denver, Colorado, 80202.

It is so Agreed:

Jack W. McGraw,

Acting Regional Administrator, U.S. Environmental Protection Agency, Region VIII.

[FR Doc. 02–9915 Filed 4–22–02; 8:45 am]

BILLING CODE 6560–50–M

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission for Extension Under Delegated Authority, Comments Requested

April 16, 2002.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act of 1995, Public Law 104–13. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; and ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Persons wishing to comment on this information collection should submit comments June 24, 2002. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all comments to Judy Boley Herman, Federal Communications Commission, 445 12th Street, SW., Room 1–C804, Washington, DC 20554 or via the internet to *jboley@fcc.gov*.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collections contact Judy Boley Herman at 202–418–0214 or via the internet at *jboley@fcc.gov*.

SUPPLEMENTARY INFORMATION:

OMB Control No.: 3060–0882.

Title: Section 95.833, Construction Requirements.

Form No.: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Individuals or households, business or other for-profit.

Number of Respondents: 1,468.

Estimated Time Per Response: 1 hour.

Total Annual Burden: 1,468 hours.

Annual Reporting and Recordkeeping Cost Burden: $0.

Frequency of Response: Ten year reporting requirement.

Needs and Uses: This rule section is necessary for 218–219 MHz service system licensees to file a report after ten years of license grant to demonstrate that they provide substantial service to its service areas. The information is used by the Commission staff to assess compliance with 218–219 MHz service construction requirements, and to provide adequate spectrum for the service. This will facilitate spectrum efficiency and competition by the 218–219 MHz licensees in the wireless

APPENDIX F

OCTOBER 25, 1990, LETTER FROM JIM MAKRIS, EPA, CLARIFYING TH E APPLICABILITY OF THE DEFINITION OF "FACILITY" TO SUBSURFACE OPERATIONS

API PUBLICATIONS, BULL. E1 SECOND EDITION P.75

October 25, 1990, Letter from Jim Makris,
EPA, clarifying the Applicability of the Definition
of *Facility* to Subsurface Operations

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 25 1990

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

C. T. Sawyer
Vice President
American Petroleum Institute
1220 L Street, N.W.
Washington, D.C. 20005

Dear Mr. Sawyer:

This letter responds to questions you and other individuals associated with the American Petroleum Institute have raised concerning whether, in the Agency's view, the emergency planning, release notification, material safety data sheet, and annual inventory provisions of the Emergency Planning and Community Right to Know Act of 1986 (commonly referred to as "EPCRA," "SARA Title III" or "Title III") apply to subsurface naturally-occurring deposits of crude oil and substances contained in such deposits ("oil deposits"). These questions arise from your reading of the recent clarifying amendments to the regulatory definition of "facility" contained in 55 Fed. Reg. 30632 (July 26, 1990).

The Agency understands that you believe that oil deposits are not "structures" as the term is used in Title III and therefore cannot be a facility. In your letter of September 26, 1990, you point out that ordinary use of the terms "facility" and "structure" would not seem to describe uncontained naturally-occurring oil deposits. You note that an oil deposit from which an operator may draw oil may extend beyond the limits of the surface tract of land on which the operator conducts his or her activities. You explain that an oil deposit does not have readily definable physical limits and that mapping such limits is dependent upon data that may vary in quality and other technical limitations. In addition, you inform us that data on the types and quantities of hazardous chemicals located in each stratum through which one drills is not customarily available for a number of years. Furthermore, you question the value of oil deposit quantity data to emergency responders because most oil wells in this country are not free-flowing and because such data would obscure data on surface storage of chemicals when aggregated. Other concerns not germane to the statutory framework (e.g., confidentiality of reserves, other regulatory schemes, certain assumptions about burden, etc.) are expressed

but are not material to the questions you have raised.

In determining the applicability of Title III's reporting provisions to any situation, the Agency takes as a starting point the statutory definition of a facility, which is set forth in Section 329(4) of the Act. 42 U.S.C. 11049(4). The definition contains three elements: a stationary item element ("all buildings, equipment, structures, and other stationary items"), a location element ("which are located on a single site or on contiguous or adjacent sites"), and a control element ("and which are owned or operated by the same person...."). For purposes of this letter, it is assumed that each oil lease constitutes a site and the company conducting exploration or extraction is the relevant operator.

The modifications to 40 C.F.R. Secs. 355.20 and 370.2 in the July 26 Federal Register were intended to clarify the Agency's interpretation that the term "structures" in the statutory definition of facility is not limited to surface structures or man-made structures. In the preamble to the regulations finalized on July 26, the Agency noted that the purpose of the revisions was

> to include only those subsurface structures that are man-made or natural structures into which hazardous chemicals are purposefully placed or removed through human means such that the structures function as a containment structure. If an activity or facility is exempt from certain title III requirements, today's regulatory definition of "facility" does not alter that exemption.

55 Fed. Reg. 30639 (July 26, 1990). The July 26 revisions indicate that the Agency does not believe that Title III distinguishes hazardous chemicals stored in tanks and buildings from hazardous chemicals stored in salt domes and caves.

The Agency's discussion of oil deposits in the preamble to the proposed rule (54 Fed. Reg. 12992 (March 29, 1989)), the preamble to the final rule, and the Response to Comment document generally suggests that Title III would apply to oil deposits to the extent that such deposits function as containment structures. For example, in the preamble to the proposed rule, the Agency listed a "geological strat[um]" as an example of a structure if such stratum functions as a containment structure. 54 Fed. Reg. 12999. Similarly, the Response to Comment document notes that there is no exemption for petroleum substances from Title III and that there is no statutory basis for distinguishing "product" stored at a facility and other hazardous chemicals. However, nowhere in the three documents referenced in this paragraph does the Agency express a view that oil deposits function as containment structures. Therefore, while these documents generally talk about Title III applying to oil deposits or "reserves," these documents do not express an Agency conclusion on whether oil deposits are structures under Title III.

Based on the Agency's understanding of the nature of oil deposits and the terms of Title III and the regulations thereunder, the Agency takes the position that oil deposits are not structures under Title III.[1] The indefinite boundaries of strata with oil deposits contrast with the more definite boundaries of other items that are called natural structures, such as a cave or a salt dome. The difficulty in estimating the quantities of hazardous chemicals present in each strata through which an operator drills would make such a broad interpretation of the term "structure" difficult to implement in a way that promotes the goals of Title III.[2] The Agency in the past has interpreted the location element to set the geographic boundaries of a facility; to the extent that oil deposit boundaries are indefinite and may extend beyond an oil lease or contiguous or adjacent leases, such a "structure" may extend beyond the geographic limits of the facility. Such an arrangement would be inconsistent with the Agency's statutory implementation scheme.

The preamble to the July 26 rule emphasized that the Agency was interested in obtaining reports on natural structures that function as containment structures. While human intervention may increase the risk associated with an oil deposit, see 54 Fed. Reg. 12999, it is difficult to conclude that the simple act of drilling through a stratum is enough use to convert a stratum to something that is used for containment purposes. This may be especially true in the oil industry, where a suspected deposit

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[1] In your letter of September 26, 1990, you also ask us to address the applicability of Title III to deposits of gas. This letter discusses oil deposits in particular. However, in your letter and in our discussions with Mark Rubin of your staff and with Rosemary Stein of Exxon, API has represented to us that the geological characteristics of gas deposits are identical to those characteristics of oil deposits we have referred to in this letter. Thus, the geological, programmatic and legal factors that have led the Agency to conclude that oil deposits are not structures also are true for gas deposits. Therefore, based on your representations, the conclusions expressed in this letter also would apply to gas deposits.

[2] For example, the current reporting scheme accomplishes right-to-know purposes by alerting a community of the existence of oil operations and the presence of quantities of hazardous chemicals that pass through or are used in its area. The Agency is not aware of new oil operations that would, for the first time, have to inform communities of their existence as a result of classifying oil deposits as structures. While the quantities of hazardous chemicals that would be reported would increase if oil deposits were interpreted to be structures, such information would be inaccurate and tend to obscure the data on surface chemicals. In general, the Agency believes chemicals that pass through or are used in a community are of greater concern to a community than those contained in oil deposits.

may be left undrilled until it appears economic to drill it. Such a deposit would be used for containment before drilling but would not be a "structure" under the preamble to the proposed rule. Human intervention in the form of drilling would not convert the deposit to a containment structure. Interpreting oil deposits to be "structures" under Title III upon human intervention but not prior to such intervention would appear to be inconsistent with the purposes of modifying the regulatory definition of facility.

The previously expressed interpretation that oil deposits are not structures under Title III also requires the conclusion that oil deposits are not facilities under Title III. If you wish to discuss any of the issues mentioned in this letter, please contact Kathy Jones of my staff at (202) 475-8353.

Sincerely,

Jim Makris
Director, Chemical Emergency
Preparedness and Prevention Office

APPENDIX G

API CORRESPONDENCE WITH THE EPA REGARDING EPCRA §§311 AND 312 REPORTING REQUIREMENTS FOR THE E&P INDUSTRY

BULLETIN E1: 3 LETTERS PP. 71 – 74

APPENDIX A

American Petroleum Institute Correspondence
with the Environmental Protection Agency

September 8, 1988, Letter from Jim Makris,
Director, Preparedness Staff of the EPA to
Michele Malloy, Chairman of the API SARA
Title III Task Force

Ms. Michele Malloy
Senior Corporate Attorney
Tenneco Inc.
Tenneco Building
P.O. Box 2511
Houston, Texas 77252-2511

Dear Ms. Malloy

This letter is in response to your July 29, 1988 correspondence concerning reporting requirements of the oil and gas production and exploration industry under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Specifically, two issues of concern were presented for EPA clarification:

— The relationship between the SARA Title III definition of "facility" and a production field

— Generic list and inventory reporting for Sections 311 and 312 regulatory requirements

Facility Definition

The SARA Title III and EPA regulatory definition of "facility" prevents the Agency from interpreting that term to apply to an entire oil or gas field in all instances. The statutory and regulatory definition treats "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person" as a single facility. However, because oil and gas exploration and production sites located on an oil field are usually not adjacent or contiguous to each other, an oil field may be the location of several different Title III facilities. Nevertheless, the reporting obligations resulting from this definition may be reduced through limited aggregate reporting.

Aggregate reporting, within the confines of certain limitations dictated by SARA Title III and EPA's implementing regulations, is permissible when complying with the reporting obligations of Sections 302, 311, and 312. These aggregate reports, however, must satisfy the informational requirements of the statute for each facility.

When aggregate reporting, an owner or operator of multiple facilities (as may be found in one oil field) must assure that the state emergency response commission (SERC) as well as each local emergency planning committee (LEPC) and fire department with jurisdiction over each facility is provided with the Section 302 emergency planning notification and the appropriate material safety data sheets (or list) and inventory forms under Sections 311 and 312. Furthermore, the statute and regulations require that owners and operators must provide the SERC, LEPC and appropriate fire department with information on the maximum and average daily amounts of hazardous chemicals within certain ranges within each hazard category present at that particular facility during the preceding year. Unless the maximum and daily amounts of these chemicals are within the same ranges at each of the multiple facilities, the owner or operator who submits duplicate Tier I forms to the appropriate state and local officials will not be in compliance with Title III or EPA's implementing regulations.

As a result of the above provisions requiring owners and operators to provide state and local authorities with facility-specific information, EPA believes that aggregate reporting may be useful only to those owners and operators of multiple facilities that use the same hazardous chemicals in approximately the same ranges.

Generic List and Inventory Reporting

SARA Title III and EPA's implementing regulations require that owners and operators list and inventory the hazardous chemicals actually present at a given facility. Thus, if the list and inventory of hazardous chemicals found on the generic list and inventory forms are an accurate compilation of the hazardous chemicals actually present at the facility, EPA will regard submission of the generic list and inventory as compliance with SARA Sections 311 and 312. Because the owner or operator must certify that the information submitted on the Tier II inventory form is true, accurate and complete, however, the owner or operator will wish to verify that the generic information reflects the hazardous chemicals present at the particular facility for which the form is being submitted.

The generic list does not relieve the owner or operator of the responsibility of updating provisions of Section 311 or of responding to requests for actual MSDSs or for information below the specified thresholds. Similarly, the owner or operator must respond to requests for Tier II information below the specified threshold, when such information is requested.

If you have any further questions or concerns related to oil and gas exploration and production reporting under SARA Title III, please contact Kathy Brody at 202-475-8353.

Sincerely,

Jim Makris
Director
Preparedness Staff

December 8, 1988, Letter from Jean L. Cole, Chairman of the API SARA Title III Production Issues Group to Kathleen Brody, Program Analyst, Preparedness Staff of the EPA.

Ms. Kathleen Brody
Preparedness Staff
Office of Solid Waste &
Emergency Response
Environmental Protection Agency
401 M Street, Southwest
Room M-3609
Washington, D.C. 20460

Dear Kathy:

Enclosed is the final Generic Hazardous Chemical Category List and Inventory document which is to be used in reporting under Sections 311 and 312 of SARA. Incorporated in this final version are the suggestions I received from Ms. Kirsten Engel (EPA Office of General Counsel). The document has been transmitted to the members of the American Petroleum Institute (API) and the Independent Petroleum Association of America (IPAA).

During our discussion on Monday, you mentioned that you were planning to distribute the document to EPA's regional offices. As a suggestion, you may want to encourage the regional offices to distribute the document to the State Emergency Response Commissions (SERCs). If so desired, a member of the SARA Title III Issue Group would be available to meet with state officials to familiarize them with the document. If possible, please forward me a copy of your transmittal letter.

API and IPAA believe the generic report document will greatly facilitate reporting under SARA, especially Section 312. Once again, I appreciate your and Kirsten's review of, and input on, the document.

Sincerely,

Jean L. Cole
Chairman, SARA Title III
Production Issue Group

December 15, 1988, Letter from Kathleen Brody,
Program Analyst, Preparedness Staff of the EPA,
to EPA Regional Preparedness Coordinators.

MEMORANDUM

SUBJECT: Generic Hazardous Chemical Category List and Inventory for the Oil and Gas Exploration and Production Industry

FROM: Kathy Brody
Program Analyst
Preparedness Staff

TO: Regional Preparedness Coordinators

As indicated in the attached letter from Jean Cole, please share the subject document with State Emergency Response Commissions as soon as possible. If SERCs wish to meet with a member of the American Petroleum Institute's Title III Issue Group, they should contact Jean Cole at (713) 656-3563.

This document was finalized following the September 8, 1988 letter from Jim Makris to Michelle Malloy (copy attached) which was provided to you in an earlier mailing.

If you have any questions, please contact me at 475-8353.

APPENDIX H

GENERICTIERTWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES FOR THE OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY AND GENERIC LIST OF HAZARDOUS CHEMICAL CATEGORIES FOR THE OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY

GENERIC TWO TIER INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES FOR THE OIL & GAS EXPLORATION AND PRODUCTION INDUSTRY

Reporting Codes

I. Volume Range Codes

Code	Weight Range in Pounds From . . .	To . . .	Barrel Equivalent Range* From . . .	To . . .
01	0	99	0	1
02	100	999	1	2
03	1,000	9,999	2	20
04	10,000	99,999	20	200
05	100,000	999,999	200	2,000
06	1,000,000	9,999,999	2,000	20,000
07	10,000,000	49,999,999	20,000	100,000
08	50,000,000	99,999,999	100,000	200,000
09	100,000,000	499,999,999	200,000	1,000,000
10	500,000,000	999,999,999	1,000,000	2,000,000
11	1 billion	higher than 1 billion	2,000,000	higher than 2,000,000

*One barrel is assumed to weigh 500 pounds.

II. Storage Type Codes

Code	Types of Storage
A	Above ground tank
B	Below ground tank
C	Tank inside building
D	Steel drum
E	Plastic or non-metallic drum
F	Can
G	Carboy
H	Silo
I	Fiber drum
J	Bag
K	Box
L	Cylinder
M	Glass bottles or jugs
N	Plastic bottles or jugs
O	Tote bin
P	Tank wagon
Q	Rail car
R	Other

III. Temperature and Pressure Condition Codes

Code	Storage Conditions
Pressure	
1	Ambient pressure
2	Greater than ambient pressure
3	Less than ambient pressure
Temperature	
4	Ambient temperature
5	Greater than ambient temperature
6	Less than ambient temperature but not cryogenic
7	Cryogenic conditions

Revised June 1990

Page ______ of ______ pages
Form Approved OMB No. 2050–0072

Tier Two

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific Information by Chemical

Facility Identification

Name ______
Street ______
City ______ County ______ State ______ Zip ______
SIC Code ☐☐☐☐ Dun & Brad Number ☐☐-☐☐☐-☐☐☐☐

FOR OFFICIAL USE ONLY: ID # ______ Date Received ______

Owner/Operator Name

Name ______ Phone ( )
Mail Address ______

Emergency Contact

Name ______ Title ______
Phone ( ) ______ 24 Hr. Phone ( ) ______

Name ______ Title ______
Phone ( ) ______ 24 Hr. Phone ( ) ______

Important: Read all instructions before completing form

Reporting Period From January 1 to December 31, 19____

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Container Type / Temperature / Pressure — Storage Codes and Locations (Non-Confidential) *Storage Locations*	Optional
CAS ☐☐☐☐☐☐ ☐☐ ☐ Trade Secret ☐ Chem. Name ______ Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name ______	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐☐ Max. Daily Amount (code) ☐☐ Avg. Daily Amount (code) ☐☐☐ No. of Days On-site (days)		☐
CAS ☐☐☐☐☐☐ ☐☐ ☐ Trade Secret ☐ Chem. Name ______ Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name ______	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐☐ Max. Daily Amount (code) ☐☐ Avg. Daily Amount (code) ☐☐☐ No. of Days On-site (days)		☐
CAS ☐☐☐☐☐☐ ☐☐ ☐ Trade Secret ☐ Chem. Name ______ Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name ______	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐☐ Max. Daily Amount (code) ☐☐ Avg. Daily Amount (code) ☐☐☐ No. of Days On-site (days)		☐

SEE THE GENERIC HAZARDOUS CHEMICAL CATEGORY INVENTORY FOR THE OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY

Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through ______, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner/operator OR owner/operator's authorized representative ______ Signature ______ Date signed ______

Optional Attachments

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS ☐☐☐☐☐☐☐☐☐ Trade Secret ☐ Chem. Name ACIDS, INORGANIC Check all that apply: Pure [X] Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 05 No. of Days On-Site (Days) 365	Container Type / Pressure / Temperature A I 4 — PRODUCTION, WORKOVER/COMPLETION R I 4 — PRODUCTION, WORKOVER/COMPLETION	☐
CAS 7664393 Trade Secret ☐ Chem. Name ACID, INORGANIC-HYDROFLUORIC ACID Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X] EHS Name HYDROGEN FLUORIDE	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 05 No. of Days On-Site (Days) 365	R I 4 — WORKOVER/COMPLETION	☐
CAS 7664939 Trade Secret ☐ Chem. Name ACIDS, INORGANIC-SULFURIC ACID Check all that apply: Pure [X] Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X] EHS Name SULFURIC ACID	Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	E I 4 — PRODUCTION, WORKOVER/COMPLETION	☐
CAS ☐☐☐☐☐☐☐☐☐ Trade Secret ☐ Chem. Name ACIDS, ORGANIC Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas ☐ EHS ☐ EHS Name	Fire [X] Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	E I 4 — PRODUCTION, WORKOVER/COMPLETION J I 4 — PRODUCTION, WORKOVER/COMPLETION R I 4 — PRODUCTION, WORKOVER/COMPLETION	☐
CAS 79061 Trade Secret ☐ Chem. Name ACRYLAMIDE MONOMER Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas ☐ EHS [X] EHS Name ACRYLAMIDE	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 05 No. of Days On-Site (Days) 365	C 2 4 — DRILLING, PRODUCTION C 2 6 — DRILLING, PRODUCTION J I 4 — DRILLING, WORKOVER/COMPLETION P I 4 — DRILLING, PRODUCTION P 2 4 — DRILLING, PRODUCTION R 2 4 — DRILLING, PRODUCTION	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential) Storage Locations	Additional Sheet
CAS ____ Trade Secret ☐ Chem. Name ALKALINITY AND PH CONTROL MATERIAL Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure X Reactivity X Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 — WORKOVER/COMPLETION, PRODUCTION J I 4 — DRILLING R I 4 — WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name BIOCIDES Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	X Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) X Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 — DRILLING, PRODUCTION, WORKOVER/COMPLETION E I 4 — DRILLING, PRODUCTION, WORKOVER/COMPLETION J I 4 — DRILLING, PRODUCTION, WORKOVER/COMPLETION R I 4 — DRILLING, PRODUCTION, WORKOVER/COMPLETION	☐
CAS 107028 Trade Secret ☐ Chem. Name BIOCIDES-ACROLEIN Check all that apply: Pure X, Mix ☐, Solid ☐, Liquid X, Gas X, EHS X EHS Name ACROLEIN	X Fire X Sudden Release of Pressure X Reactivity X Immediate (acute) ☐ Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	C 2 4 — PRODUCTION D I 4 — PRODUCTION	☐
CAS 7664417 Trade Secret ☐ Chem. Name BIOCIDES-ANHYDROUS AMMONIA Check all that apply: Pure X, Mix ☐, Solid ☐, Liquid X, Gas X, EHS X EHS Name AMMONIA	☐ Fire X Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	C 2 4 — PRODUCTION L 2 4 — PRODUCTION	☐
CAS 50000 Trade Secret ☐ Chem. Name BIOCIDES-FORMALDEHYDE Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas X, EHS X EHS Name FORMALDEHYDE	X Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) X Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	C I 4 — PRODUCTION E I 4 — PRODUCTION	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

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Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Container Type / Pressure / Temperature	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS [ ] Trade Secret [ ] Chem. Name BREAKERS, EMULSION/GEL Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name	[X] Fire [ ] Sudden Release of Pressure [ ] Reactivity [X] Immediate (acute) [ ] Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 J I 4 R I 4	WORKOVER/COMPLETION, PRODUCTION WORKOVER/COMPLETION WORKOVER/COMPLETION, PRODUCTION	[ ]
CAS [ ] Trade Secret [ ] Chem. Name BUFFERS, PH Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name	[ ] Fire [ ] Sudden Release of Pressure [ ] Reactivity [X] Immediate (acute) [ ] Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	J I 4 R I 4	DRILLING, WORKOVER/COMPLETION DRILLING, WORKOVER/COMPLETION	[ ]
CAS [ ] Trade Secret [ ] Chem. Name CALCIUM COMPOUNDS Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name	[ ] Fire [ ] Sudden Release of Pressure [ ] Reactivity [X] Immediate (acute) [ ] Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A I 4 D I 4 F I 4 J I 4	DRILLING DRILLING, PRODUCTION DRILLING, PRODUCTION DRILLING	[ ]
CAS [ ] Trade Secret [ ] Chem. Name CEMENT AND ASSOCIATED ADDITIVES Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name	[ ] Fire [ ] Sudden Release of Pressure [ ] Reactivity [X] Immediate (acute) [ ] Delayed (chronic)	05 Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A I 4 D I 4 J I 4 R I 4	DRILLING, WORKOVER/COMPLETION DRILLING, WORKOVER/COMPLETION DRILLING, WORKOVER/COMPLETION DRILLING, WORKOVER/COMPLETION	[ ]
CAS [ ] [ ] 7782505 Trade Secret [ ] Chem. Name CHLORINE GAS Check all that apply: Pure [X] Mix [ ] Solid [ ] Liquid [ ] Gas [X] EHS [X] EHS Name CHLORINE	[ ] Fire [X] Sudden Release of Pressure [X] Reactivity [X] Immediate (acute) [X] Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	L 2 4	PRODUCTION	[ ]

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Container Type / Pressure / Temperature	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS ____ Trade Secret ☐ Chem. Name CORROSION INHIBITORS Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	Fire X Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) X Delayed (chronic) X	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	D 1 4 E 1 4 F 1 4 J 1 4 R 1 4	DRILLING, PRODUCTION, WORKOVER/COMPLETION DRILLING, PRODUCTION, WORKOVER/COMPLETION DRILLING DRILLING WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name CROSSLINKERS Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	Fire X Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) X Delayed (chronic) X	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	D 1 4 J 1 4 R 1 4	WORKOVER/COMPLETION WORKOVER/COMPLETION WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name DEFOAMING AGENTS Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) X Delayed (chronic) ☐	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	D 1 4 F 1 4 J 1 4	PRODUCTION DRILLING, PRODUCTION DRILLING	☐
CAS ____ Trade Secret ☐ Chem. Name DEFLOCCULANTS Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) X Delayed (chronic) ☐	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	D 1 4 F 1 4 J 1 4	PRODUCTION DRILLING, PRODUCTION DRILLING	☐
CAS ____ Trade Secret ☐ Chem. Name DETERGENTS/FOAMERS Check all that apply: Pure ☐, Mix X, Solid ☐, Liquid X, Gas ☐, EHS ☐ EHS Name	Fire X Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) X Delayed (chronic) ☐	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	D 1 4 E 1 4 F 1 4	DRILLING, PRODUCTION DRILLING, PRODUCTION DRILLING, PRODUCTION	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential) Storage Locations	Container Type	Pressure	Temperature	Optional
CAS ____ Trade Secret ☐ Chem. Name EXPLOSIVES Check all that apply: ☐ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name	☐ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	01 Max. Daily Amount (Codes) 01 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	DRILLING, WORKOVER/COMPLETION DRILLING, WORKOVER/COMPLETION	K R	1 1	4 4	☐
CAS ____ Trade Secret ☐ Chem. Name FILTRATION CONTROL AGENTS/ FLOCCULANTS Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	DRILLING, WORKOVER/COMPLETION PRODUCTION PRODUCTION DRILLING	J D E F	1 1 1 1	4 4 4 4	☐
CAS ____ Trade Secret ☐ Chem. Name FLUORIDE GENERATING COMPOUNDS Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	WORKOVER/COMPLETION WORKOVER/COMPLETION WORKOVER/COMPLETION	D J R	1 1 1	4 4 4	☐
CAS ____ Trade Secret ☐ Chem. Name FRICTION REDUCERS Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	WORKOVER/COMPLETION WORKOVER/COMPLETION	D R	1 1	4 4	☐
CAS ____ Trade Secret ☐ Chem. Name FUELS Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name	☒ Fire ☒ Sudden Release of Pressure ☐ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	05 Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	DRILLING, PRODUCTION, WORKOVER/COMPLETION PRODUCTION DRILLING, PRODUCTION, WORKOVER/COMPLETION	A B R	1 1 1	4 4 4	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS ____ Trade Secret ☐ Chem. Name GELLING AGENTS Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	05 Max. Daily Amount (Codes) 05 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	F I 4 DRILLING J I 4 DRILLING, WORKOVER/COMPLETION R I 4 DRILLING, WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name GEL STABILIZERS Check all that apply: Pure X, Mix X, Solid X, Liquid X, Gas ☐, EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 WORKOVER/COMPLETION J I 4 WORKOVER/COMPLETION R I 4 WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name HEAT TRANSFER FLUIDS Check all that apply: Pure X, Mix ☐, Solid ☐, Liquid X, Gas X, EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) X Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A 2 5 PRODUCTION A 2 6 PRODUCTION A I 5 PRODUCTION	☐
CAS ____ Trade Secret ☐ Chem. Name HERBICIDES Check all that apply: Pure ☐, Mix X, Solid ☐, Liquid X, Gas ☐, EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 PRODUCTION E I 4 PRODUCTION	☐
CAS ____ Trade Secret ☐ Chem. Name HYDRAULIC FLUIDS Check all that apply: Pure ☐, Mix X, Solid ☐, Liquid X, Gas ☐, EHS ☐ EHS Name	X Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A I 4 DRILLING, PRODUCTION R 2 4 DRILLING, PRODUCTION	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Container Type / Pressure / Temperature	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS 7783064 Trade Secret ☐ Chem. Name HYDROGEN SULFIDE Check all that apply: X Pure, X Mix, ☐ Solid, ☐ Liquid, X Gas, X EHS EHS Name HYDROGEN SULFIDE	X Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	02 Max. Daily Amount (Codes) 02 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	R 2 4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	☐
CAS ☐ Trade Secret ☐ Chem. Name INERT GASES Check all that apply: X Pure, ☐ Mix, ☐ Solid, X Liquid, X Gas, ☐ EHS EHS Name	☐ Fire X Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A 2 7 L 2 7 R 2 7	PRODUCTION, WORKOVER/COMPLETION PRODUCTION, WORKOVER/COMPLETION PRODUCTION, WORKOVER/COMPLETION	☐
CAS ☐ Trade Secret ☐ Chem. Name LOST CIRCULATION MATERIAL Check all that apply: X Pure, X Mix, X Solid, X Liquid, ☐ Gas, ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	J I 4	DRILLING	☐
CAS ☐ Trade Secret ☐ Chem. Name LUBRICANTS, DRILLING MUD ADDITIVES Check all that apply: X Pure, X Mix, X Solid, X Liquid, ☐ Gas, ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 J I 4	DRILLING DRILLING	☐
CAS ☐ Trade Secret ☐ Chem. Name LUBRICANTS, ENGINE Check all that apply: ☐ Pure, X Mix, ☐ Solid, X Liquid, ☐ Gas, ☐ EHS EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity X Immediate (acute) ☐ Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D I 4 F I 4	DRILLING, PRODUCTION, WORKOVER/COMPLETION DRILLING, PRODUCTION, WORKOVER/COMPLETION	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS ____ Trade Secret ☐ Chem. Name: MISCELLANEOUS DRILLING ADDITIVES Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name:	Fire [ ] Sudden Release of Pressure [ ] Reactivity [ ] Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (Codes): 02 Avg. Daily Amount (Codes): 02 No. of Days On-Site (Days): 365	A 1 4 DRILLING D 1 4 DRILLING F 1 4 DRILLING J 1 4 DRILLING	☐
CAS ____ Trade Secret ☐ Chem. Name: ODORANTS Check all that apply: Pure [ ] Mix [X] Solid [ ] Liquid [ ] Gas [X] EHS [ ] EHS Name:	Fire [X] Sudden Release of Pressure [ ] Reactivity [ ] Immediate (acute) [X] Delayed (chronic) [ ]	Max. Daily Amount (Codes): 01 Avg. Daily Amount (Codes): 01 No. of Days On-Site (Days): 365	L 2 4 PRODUCTION	☐
CAS ____ Trade Secret ☐ Chem. Name: OIL BASED MUD ADDITIVES Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ] EHS Name:	Fire [X] Sudden Release of Pressure [ ] Reactivity [ ] Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (Codes): 04 Avg. Daily Amount (Codes): 04 No. of Days On-Site (Days): 365	A 1 4 DRILLING D 1 4 DRILLING F 1 4 DRILLING J 1 4 DRILLING	☐
CAS ____ Trade Secret ☐ Chem. Name: PAINT AND PAINT THINNER Check all that apply: Pure [ ] Mix [X] Solid [ ] Liquid [X] Gas [ ] EHS [ ] EHS Name:	Fire [X] Sudden Release of Pressure [ ] Reactivity [ ] Immediate (acute) [ ] Delayed (chronic) [X]	Max. Daily Amount (Codes): 04 Avg. Daily Amount (Codes): 04 No. of Days On-Site (Days): 365	D 1 4 DRILLING, PRODUCTION F 1 4 DRILLING, PRODUCTION	☐
CAS ____ Trade Secret ☐ Chem. Name: PIPE JOINT COMPOUND Check all that apply: Pure [ ] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ] EHS Name:	Fire [ ] Sudden Release of Pressure [ ] Reactivity [ ] Immediate (acute) [ ] Delayed (chronic) [X]	Max. Daily Amount (Codes): 02 Avg. Daily Amount (Codes): 02 No. of Days On-Site (Days): 365	F 1 4 DRILLING, WORKOVER/COMPLETION	☐

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description

CAS [ ] Trade Secret [ ]
Chem. Name PRESERVATIVES
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ]
EHS Name

Physical and Health Hazards (Check All That Apply)
[ ] Fire
[ ] Sudden Release of Pressure
[ ] Reactivity
[X] Immediate (acute)
[X] Delayed (chronic)

Inventory
Max. Daily Amount (Codes): 02
Avg. Daily Amount (Codes): 02
No. of Days On-Site (Days): 365

Storage Codes & Locations (Non-Confidential)

Container Type	Pressure	Temperature	Storage Locations
D	1	4	DRILLING, PRODUCTION
E	1	4	DRILLING, PRODUCTION
J	1	4	DRILLING

Optional [ ]

CAS [ ] Trade Secret [ ]
Chem. Name PRODUCED HYDROCARBONS
Check all that apply: Pure [ ] Mix [X] Solid [ ] Liquid [X] Gas [X] EHS [ ]
EHS Name

Physical and Health Hazards (Check All That Apply)
[X] Fire
[X] Sudden Release of Pressure
[ ] Reactivity
[X] Immediate (acute)
[X] Delayed (chronic)

Inventory
Max. Daily Amount (Codes): 06
Avg. Daily Amount (Codes): 06
No. of Days On-Site (Days): 365

Storage Codes & Locations (Non-Confidential)

Container Type	Pressure	Temperature	Storage Locations
A	1	4	PRODUCTION
A	2	5	PRODUCTION
R	1	4	PRODUCTION
R	2	5	PRODUCTION

Optional [ ]

CAS [ ] Trade Secret [ ]
Chem. Name PROPPANTS
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]
EHS Name

Physical and Health Hazards (Check All That Apply)
[ ] Fire
[ ] Sudden Release of Pressure
[ ] Reactivity
[X] Immediate (acute)
[ ] Delayed (chronic)

Inventory
Max. Daily Amount (Codes): 06
Avg. Daily Amount (Codes): 06
No. of Days On-Site (Days): 365

Storage Codes & Locations (Non-Confidential)

Container Type	Pressure	Temperature	Storage Locations
A	1	4	WORKOVER/COMPLETION
J	1	4	WORKOVER/COMPLETION
R	1	4	WORKOVER/COMPLETION

Optional [ ]

CAS [ ] Trade Secret [ ]
Chem. Name RESIN AND RESIN SOLUTIONS
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas [ ] EHS [ ]
EHS Name

Physical and Health Hazards (Check All That Apply)
[X] Fire
[ ] Sudden Release of Pressure
[ ] Reactivity
[X] Immediate (acute)
[ ] Delayed (chronic)

Inventory
Max. Daily Amount (Codes): 02
Avg. Daily Amount (Codes): 02
No. of Days On-Site (Days): 365

Storage Codes & Locations (Non-Confidential)

Container Type	Pressure	Temperature	Storage Locations
D	1	4	DRILLING, WORKOVER/COMPLETION
I	1	4	DRILLING, WORKOVER/COMPLETION
J	1	4	DRILLING, WORKOVER/COMPLETION
R	1	4	DRILLING, WORKOVER/COMPLETION

Optional [ ]

CAS [ ] Trade Secret [ ]
Chem. Name SALT SOLUTIONS
Check all that apply: Pure [ ] Mix [X] Solid [ ] Liquid [X] Gas [ ] EHS [ ]
EHS Name

Physical and Health Hazards (Check All That Apply)
[ ] Fire
[ ] Sudden Release of Pressure
[ ] Reactivity
[X] Immediate (acute)
[ ] Delayed (chronic)

Inventory
Max. Daily Amount (Codes): 06
Avg. Daily Amount (Codes): 06
No. of Days On-Site (Days): 365

Storage Codes & Locations (Non-Confidential)

Container Type	Pressure	Temperature	Storage Locations
A	1	4	WORKOVER/COMPLETION, DRILLING, PRODUCTION
D	1	4	WORKOVER/COMPLETION DRILLING
R	1	4	WORKOVER/COMPLETION DRILLING
J	1	4	DRILLING, WORKOVER/COMPLETION

Optional [ ]

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Container Type / Pressure / Temperature	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS ____ Trade Secret ☐ Chem. Name SCALE INHIBITORS Check all that apply: Pure [X] Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐ EHS Name	[X] Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic)	03 Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	D 1 4 R 1 4	PRODUCTION, WORKOVER/COMPLETION PRODUCTION, WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name SHALE CONTROL ADDITIVES Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [X] Gas ☐ EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	E 1 4 F 1 4 J 1 4	DRILLING DRILLING DRILLING	☐
CAS ____ Trade Secret ☐ Chem. Name SILICA Check all that apply: Pure ☐ Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐ EHS Name	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic)	06 Max. Daily Amount (Codes) 06 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A 1 4 J 1 4 R 1 4	WORKOVER/COMPLETION WORKOVER/COMPLETION WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name SOLVENTS Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐ EHS Name	[X] Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A 1 4 D 1 4 R 1 4	DRILLING, PRODUCTION, WORKOVER/COMPLETION DRILLING, PRODUCTION, WORKOVER/COMPLETION DRILLING, PRODUCTION, WORKOVER/COMPLETION	☐
CAS ____ Trade Secret ☐ Chem. Name SPOTTING FLUIDS Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐ EHS Name	[X] Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic)	04 Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 365 No. of Days On-Site (Days)	A 1 4 A 1 4 D 1 4 R 1 4	DRILLING DRILLING DRILLING DRILLING	☐

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Container Type	Pressure	Temperature	Storage Codes & Locations (Non-Confidential) Storage Locations	Optional
CAS 7446095 Trade Secret:	Fire:	Max. Daily Amount (Codes): 02	C	2	4	PRODUCTION	
Chem. Name: SULFUR DIOXIDE	Sudden Release of Pressure: X	Avg. Daily Amount (Codes): 02	R	2	4	PRODUCTION	
Check all that apply: Pure: X Mix: X Solid: Liquid: X Gas: X EHS: X	Reactivity:	No. of Days On-Site (Days): 365					
EHS Name: SULFUR DIOXIDE	Immediate (acute): X						
	Delayed (chronic): X						
CAS Trade Secret:	Fire:	Max. Daily Amount (Codes): 03	D	1	4	PRODUCTION, WORKOVER/COMPLETION	
Chem. Name: SURFACTANTS, CORROSIVE	Sudden Release of Pressure:	Avg. Daily Amount (Codes): 03	E	1	4	PRODUCTION, WORKOVER/COMPLETION	
Check all that apply: Pure: X Mix: X Solid: Liquid: X Gas: EHS:	Reactivity:	No. of Days On-Site (Days): 365	R	1	4	PRODUCTION, WORKOVER/COMPLETION	
EHS Name:	Immediate (acute): X						
	Delayed (chronic): X						
CAS 107153 Trade Secret:	Fire: X	Max. Daily Amount (Codes): 04	A	1	4	PRODUCTION	
Chem. Name: SURFACTANT-ETHYLENE DIAMINE	Sudden Release of Pressure:	Avg. Daily Amount (Codes): 04	D	1	4	PRODUCTION	
Check all that apply: Pure: X Mix: X Solid: Liquid: X Gas: EHS: X	Reactivity:	No. of Days On-Site (Days): 365	R	2	4	PRODUCTION	
EHS Name: ETHYLENEDIAMINE	Immediate (acute): X						
	Delayed (chronic):						
CAS Trade Secret:	Fire: X	Max. Daily Amount (Codes): 04	D	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
Chem. Name: SURFACTANTS, FLAMMABLE	Sudden Release of Pressure:	Avg. Daily Amount (Codes): 04	F	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
Check all that apply: Pure: X Mix: X Solid: Liquid: X Gas: EHS:	Reactivity:	No. of Days On-Site (Days): 365	R	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
EHS Name:	Immediate (acute): X						
	Delayed (chronic): X						
CAS Trade Secret:	Fire:	Max. Daily Amount (Codes): 03	D	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
Chem. Name: SURFACTANTS, MISCELLANEOUS	Sudden Release of Pressure:	Avg. Daily Amount (Codes): 03	F	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
Check all that apply: Pure: X Mix: X Solid: Liquid: X Gas: EHS:	Reactivity:	No. of Days On-Site (Days): 365	R	1	4	DRILLING, PRODUCTION, WORKOVER/COMPLETION	
EHS Name:	Immediate (acute): X						
	Delayed (chronic):						

OIL AND GAS EXPLORATION AND PRODUCTION INDUSTRY
GENERIC TIER TWO INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES

THE GENERIC TIER II INVENTORY OF HAZARDOUS CHEMICAL CATEGORIES MAY BE USED IN COMPLYING WITH SARA TITLE III SECTION 312. THE GENERIC REPORT IS COMPREHENSIVE AND LISTS THE CATEGORIES OF HAZARDOUS CHEMICALS RATHER THAN TRADE NAMES AND SPECIFIC CHEMICAL NAMES.

Chemical Description	Physical and Health Hazards (Check All That Apply)	Inventory	Storage Codes & Locations (Non-Confidential)	Optional
CAS ☐ Trade Secret ☐ Chem. Name TEMPORARY BLOCKING AGENTS Check all that apply: Pure [X] Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	J I 4 WORKOVER/COMPLETION R I 4 WORKOVER/COMPLETION	☐
CAS ☐ Trade Secret ☐ Chem. Name TRACERS Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐ EHS Name	Fire [X] Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic) ☐	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	D I 4 DRILLING, WORKOVER/COMPLETION F I 4 DRILLING M I 4 DRILLING	☐
CAS ☐ Trade Secret ☐ Chem. Name VISCOSIFIERS Check all that apply: Pure [X] Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	A I 4 DRILLING J I 4 DRILLING	☐
CAS ☐ Trade Secret ☐ Chem. Name WEIGHT MATERIALS Check all that apply: Pure [X] Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 04 Avg. Daily Amount (Codes) 04 No. of Days On-Site (Days) 365	A I 4 DRILLING H I 4 DRILLING J I 4 DRILLING	☐
CAS ☐ Trade Secret ☐ Chem. Name WELDING MATERIALS Check all that apply: Pure ☐ Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐ EHS Name	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (Codes) 03 Avg. Daily Amount (Codes) 03 No. of Days On-Site (Days) 365	K I 4 DRILLING, PRODUCTION, WORKOVER/COMPLETION	☐

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Acids, Inorganic Hydrochloric acid (<30%) (CAS#7647-01-0)	Reactivity, Immediate (Acute)
Acids, Inorganic - Hydrofluoric Acid Hydrofluoric acid (<12%) (CAS#7664-39-3)	Immediate (Acute)
Acids, Inorganic - Sulfuric Acid Sulfuric acid (CAS#7664-93-9)	Reactivity, Immediate (Acute)
Acids, Organic Acetic acid (CAS#64-19-7) Acetic anhydride (CAS#108-24-7) Benzoic acid (CAS#65-85-0) Citric acid (CAS#5949-29-1) Formic acid (CAS#64-18-6)	Fire, Reactivity, Immediate (Acute)
Acrylamide Monomer (CAS#79-06-1)	Immediate (Acute), Delayed (Chronic)
Alkalinity and pH Control Materials Calcium hydroxide (CAS#1305-62-0) Potassium hydroxide (CAS#1310-58-3) Soda ash (CAS#497-19-8) Sodium bicarbonate (CAS#144-55-8) Sodium carbonate (CAS#497-19-8) Sodium hydroxide (CAS#1310-73-2)	Reactivity, Immediate (Acute)
Biocides Amines Glutaraldehyde (CAS#111-30-8) Isopropanol (CAS#67-63-0) Thiozolin	Fire, Immediate (Acute), Delayed (Chronic)
Biocides - Acrolein Acrolein (CAS#107-02-8)	Fire, Sudden Release of Pressure, Reactivity, Immediate (Acute)
Biocides - Anhydrous Ammonia Anhydrous ammonia	Sudden Release of Pressure, Immediate (Acute)
Biocides - Formaldehyde Formaldehyde	Fire, Immediate (Acute), Delayed (Chronic)
Breakers, Emulsion/Gel Ammonium persulfate (CAS#7727-54-0) Benzoic acid (CAS#65-85-0) Enzyme Sodium acetate (CAS#127-09-3) Sodium persulfate (CAS#7772-27-1)	Fire, Immediate (Acute)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Buffers, pH Sodium acetate (CAS#127-09-3) Sodium bicarbonate (CAS#144-55-8) Sodium carbonate (CAS#497-19-8) Sodium diacetate	Immediate (Acute)
Calcium Compounds Calcium bromide (CAS#71626-99-8) Calcium hypochlorite (CAS#7778-54-3) Calcium oxide (CAS#1305-78-8) Gypsum (CAS#10101-41-4) Lime (CAS#1305-78-8)	Immediate (Acute)
Cement (CAS#65997-15-1)	Immediate (Acute)
Cement Additives - Accelerators Calcium chloride (CAS#10035-04-8) Gypsum (CAS#10101-41-4) Potassium chloride (CAS#7447-40-7) Sodium chloride (CAS#7647-14-5) Sodium metasilicate	Immediate (Acute)
Cement Additives - Fluid Loss Cellulose polymer Latex	Immediate (Acute)
Cement Additives - Miscellaneous Cellulose flakes (CAS#9004-34-6) Coated aluminum Gilsonite (CAS#12002-43-6) Lime (CAS#1305-78-8) Long chain alcohols	Immediate (Acute)
Cement Additives - Retarders Cellulose polymer Lignosulfonates	Immediate (Acute)
Cement Additives - Weight Modification Barite (CAS#7727-43-7) Bentonite Diatomaceous earth (CAS#68855-54-9) Fly ash Glass beads Hematite (CAS#1317-60-8) Ilmenite Pozzolans	Immediate (Acute)
Chlorine Gas (CAS#7782-50-5)	Sudden Release of Pressure, Reactivity, Immediate (Acute), Delayed (Chronic)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Corrosion Inhibitors 2-Butoxyethanol 4-4' Methylene dianiline (CAS#101-77-9) Acetylenic alcohols Amine formulations Ammonium bisulfite (CAS#10192-30-0) Gelatin Ironite sponge (CAS#1309-37-1) Sodium chromate (CAS#7775-11-3) Sodium dichromate (CAS#10588-01-9) Sodium polyacrylate Zinc carbonate (CAS#3486-35-9) Zinc lignosulfonate Zinc oxide (CAS#1314-13-2)	Fire, Immediate (Acute), Delayed (Chronic)
Crosslinkers (Polymer Linking) Boron compounds Organo-metallic complexes	Fire, Immediate (Acute), Delayed (Chronic)
Defoaming Agents Aluminum sterate Fatty acid salt formation Mixed alcohols Silicones Tributylphosphate (CAS#126-73-8)	Immediate (Acute)
Deflocculants Acrylic polymer Calcium lignosulfonate Chrome-free lignosulfonate Chromium lignosulfonate Iron lignosulfonate Quebracho Sodium acid pyrophosphate (SAPP) Sodium hexametaphosphate (CAS#10124-56-8) Sodium phosphate (oilfos) Sodium tetraphosphate Sodium tripolyphosphate (STP) Styrene, maleic anhydride co-polymer salt Sulfo-methylated tannin	Immediate (Acute)
Detergents/Foamers Amphoteric surfactant formulation Detergents Ethoxylated phenol	Fire, Immediate (Acute)
Explosives Charged well jet perforating gun, Class C explosives Detonators, Class A explosives Explosive power device, Class B	Sudden Release of Pressure

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Filtration Control Agents/Flocculants Acrylamide AMPS copolymer Aniline formaldehyde copolymer hydrochlorite Anionic polyacrylamide Causticized leonardite Leonardite Partially hydrolyzed polyacrylamide Polyalkanolamine ester Polyamine acrylate Polyanionic cellulose Potassium lignite Preserved starch Sodium carboxymethyl cellulose (CAS#9004-32-4) Starch (CAS#9005-25-8) Sulfomethylated phenol formaldehyde Vinylsulfonate copolymer	Immediate (Acute)
Fluoride Generating Compounds Ammonium bifluoride (CAS#1341-49-7) Ammonium fluoride (CAS#12125-01-8)	Immediate (Acute)
Friction Reducers Acrylamide methacrylte copolymers Sulfonates	Immediate (Acute)
Fuels Acetylene gas (CAS#74-86-2) Diesel (CAS#68476-34-6) Fuel oil Gasoline (CAS#8006-61-9) Kerosene (CAS#8008-20-6) Propane (CAS#74-98-6)	Fire, Sudden Release of Pressure, Immediate (Acute), Delayed (Chronic)
Gelling Agents Cellulose and guar derivatives	Immediate (Acute)
Gel Stabilizers Sulfites Thiosulfates	Immediate (Acute)
Heat Transfer Fluids Ethylene glycol (CAS#107-21-1) Freon	Immediate (Acute), Delayed (Chronic)
Herbicides	Immediate (Acute)
Hydraulic Fluids	Fire, Immediate (Acute)
Hydrogen Sulfide (CAS#7783-06-4)	Fire, Immediate (Acute)
Inert Gases Carbon dioxide (CAS#124-38-9) Nitrogen (CAS#7727-37-9)	Sudden Release of Pressure, Immediate (Acute)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Lost Circulation Materials Cane fibers Cedar fibers Cellophane fibers Corn cob Cottonseed hulls Mica (CAS#12001-26-2) Nut shells Paper Rock wool Sawdust	Immediate (Acute)
Lubricants, Drilling Mud Additives Graphite (CAS#7782-42-5) Mineral oil formulations Organo-fatty acid salt Vegetable oil formulations Walnut shells	Immediate (Acute)
Lubricants, Engine Grease Motor oil	Immediate (Acute)
Miscellaneous Drilling Additives Diatomaceous earth (CAS#68855-54-9) Oxalic acid (CAS#144-62-7) Potassium acetate (CAS#127-08-2) Zinc bromide (CAS#7699-45-8)	Immediate (Acute), Delayed (Chronic)
Odorants Mercaptans, aliphatic	Fire, Immediate (Acute)
Oil Based Mud Additives Amid polymer formulations Amine treated lignite Asphalt Diesel (CAS#68476-34-6) Gilsonite (CAS#12002-43-6) Mineral oil Organophilic clay Organophilic hectorite Petroleum distillate (CAS#8030-30-6) Polyethylene powder Polymerized organic acids Sulfonate surfactant	Fire, Immediate (Acute), Delayed (Chronic)
Paint and Paint Thinner	Fire, Delayed (Chronic)
Pipe Joint Compound	Delayed (Chronic)
Preservatives Dithiocarbamates Isothiazions Paraformaldehyde (CAS#30525-89-4)	Immediate (Acute), Delayed (Chronic)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Produced Hydrocarbons Condensate Crude oil (CAS#8002-05-9) Natural gas	Fire, Sudden Release of Pressure, Immediate (Acute), Delayed (Chronic)
Proppants Bauxite (CAS#1318-16-7) Resin coated sand Zirconium proppant	Immediate (Acute)
Resin and Resin Solutions Melamine resins Phenolic resins Polyglycol resins	Fire, Immediate (Acute)
Salt Solutions Aluminum chloride (CAS#7446-70-0) Ammonium chloride (CAS#12125-02-9) Calcium bromide (CAS#71626-99-8) Calcium chloride (CAS#10035-04-8) Calcium sulfate (CAS#778-18-9) Ferrous sulfate (CAS#7782-63-0) Potassium chloride (CAS#7447-40-7) Sodium chloride (CAS#7647-14-5) Sodium sulfate (CAS#7757-82-6) Zinc bromide (CAS#7699-45-8) Zinc chloride (CAS#7646-85-7) Zinc sulfate	Immediate (Acute)
Scale Inhibitors Ethylenediaminetetraacetic acid (EDTA) (CAS#60-00-4) Inorganic phosphates Nitrilotriacetic acid (NTA) (CAS#139-13-9) Organic phosphates Phosphonates Polyacrylate Polyphosphates	Fire, Immediate (Acute), Delayed (Chronic)
Shale Control Additives Hydrolyzed polyacrylamide polymer Organo-aluminum complex Polyacrylate polymer Sulfonated asphaltic residuum	Immediate (Acute)
Silica	Immediate (Acute), Delayed (Chronic)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Solvents 1,1,1 - Trichloroethane (CAS#71-55-6) Acetone (CAS#67-64-1) Aliphatic hydrocarbons t-Butyl alcohol (CAS#75-65-0) Carbon tetrachloride (CAS#56-23-5) Chloroform (CAS#67-6-3) Diacetone alcohol (CAS#123-42-2) Ethylene glycol monobutyl ether (CAS#111-76-2) Kerosene (CAS#8008-20-6) Isopropanol (CAS#67-63-0) Methyl ethyl ketone (MEK) (CAS#78-93-3) Methyl isobutyl ketone (MIBK) (CAS#108-10-1) Methylene chloride (CAS#75-09-2) Methanol (CAS#67-56-1) Naphtha (CAS#8032-32-4) Toluene (CAS#108-88-3) Turpentine (CAS#8006-64-2) Xylene (CAS#1330-20-7)	Fire, Immediate (Acute), Delayed (Chronic)
Spotting Fluids Nonoil base spotting fluid Oil base spotting fluid (diesel oil base) Oil base spotting fluid (mineral oil base) Sulfonated vegetable ester	Fire, Immediate (Acute), Delayed (Chronic)
Sulfur Dioxide (CAS#7446-09-5)	Sudden Release of Pressure, Immediate (Acute), Delayed (Chronic)
Surfactants - Corrosive Alcohol ether sulfates Amines Quarternary polyamine Sulfonic acids	Immediate (Acute), Delayed (Chronic)
Surfactants - Ethylene Diamine Ethylene Diamine (CAS#107-15-3)	Fire, Immediate (Acute)
Surfactants - Flammable Amines Ammonium salts Fatty alcohols Isopropanol (CAS#67-63-0) Methanol (CAS#67-56-1) Oxyalkylated phenols Petroleum naphtha (CAS#8030-30-6) Sulfonates	Fire, Immediate (Acute), Delayed (Chronic)
Surfactants - Miscellaneous Amine salts Glycols	Immediate (Acute)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

SARA Title III §311
Generic List of Hazardous Chemical Categories
For the Oil and Gas Exploration and Production Industry

Hazardous Chemical Category (With Examples of Representative Chemicals)	Physical and Health Hazards
Temporary Blocking Agents Benzoic acid (CAS#65-85-0) Naphthalene (CAS#91-20-3) Petroleum wax polymers Sodium chloride (CAS#7647-14-5)	Immediate (Acute)
Tracers Ammonium nitrate Potassium nitrate	Fire
Viscosifiers Attapulgite Bentonite Guar gum (CAS#9000-30-0) Sepiolite Xanthan gum	Immediate (Acute)
Weight Materials Barite (CAS#7727-43-7) Calcium carbonate (CAS#1317-65-3) Galena Hematite (CAS#1317-60-8) Iron carbonate Siderite	Immediate (Acute)
Welding Materials Solder Welding Rods	Immediate (Acute)

The specific chemicals listed are representative examples in each applicable Hazardous Chemical Category

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