

**National Emission Standards for  
Hazardous Air Pollutants (NESHAP) for  
Site Remediation  
(40 CFR part 63, subpart GGGGG)**

**Background Information for  
Promulgated Standards**

**U.S. Environmental Protection Agency  
Office of Air Quality and Standards  
Emission Standards Division  
Waste and Chemical Processes Group  
Research Triangle Park, NC 27711**

**August 2003**



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## **1.0 INTRODUCTION**

### **1.1 BACKGROUND**

We, the U.S. Environmental Protection Agency (EPA), proposed the National Emission Standards for Hazardous Air Pollutants (NESHAP) for site remediation on July 30, 2002 (67 FR 49398). A 60-day comment period (July 30, 2002 to September 30, 2002) was provided to accept comments on the proposed rule. An opportunity for a public hearing was provided to allow any interested persons to present oral comments on the proposed rule. However, we did not receive a request for a formal public hearing, so a public hearing was not held. A meeting with the EPA was requested by the American Petroleum Institute to present comments on the proposed rule, and a meeting was held on September 5, 2002 at the EPA offices in the Research Triangle Park, North Carolina.

### **1.2 COMMENTERS ON PROPOSED RULE**

We received a total of 51 letters and e-mails regarding the proposed Site Remediation NESHAP from commenters. Two commenters affiliated with the Department of the Navy independently submitted the same set of comments; and two commenters from the State of Alabama Department of Environmental Management each submitted two separate and distinct sets of comments. Table 1-1 lists the names of the commenters and their affiliations for each of the comment letters and e-mails received regarding the proposed rule.

Copies of each of the comment letters and e-mails received regarding the proposed Site Remediation NESHAP are available in the official public docket for the development of the rule under Docket ID Nos. A-99-20 (legacy docket entry number) and OAR-2002-0021. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Table 1-1 lists the legacy docket entry number for each of the comments. This docket is available for public viewing at the Air Docket in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. An electronic version of the public docket also is available through EPA's electronic public docket and comment system, EPA Dockets, at <<http://www.epa.gov/edocket/>>. You can use this web site to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically.

For the 51 commenters on the proposed Site remediation NESHAP, the commenter affiliations can be grouped as follows:

22 - Companies

Alyeska Pipeline Service Company  
Ashland, Inc.  
Boeing Company  
BP America, Inc.  
ChevronTexaco  
Delphi Facilities Services Group  
Dow Chemical Company  
Eastman Chemical Company  
ExxonMobil Refining and Supply Company  
General Motors Corporation  
Groundwater Services, Inc. on behalf of Southwest Shipyard, L.P.  
Lyondell Chemical Company  
Marathon Ashland Petroleum LLC

National Steel Corporation  
Neville Chemical Company  
Panolam Industries  
Pinnacle West Capital Corporation  
URS Corporation  
United States Steel Corporation  
Valero Energy Corporation  
Weirton Steel Corporation  
Woodard & Curran

- 5 - Environmental/Public Interest Groups
  - Blue Ridge Environmental Defense League
  - Coalition for Health Concern
  - Coalition for Nuclear Justice
  - Concern Citizens for Nuclear Safely
  - Environmental Defense Institute
  
- 3 - Federal Government Agencies
  - Department of Energy
  - Department of the Navy
  - National Aeronautics and Space Administration
  
- 7 - Industry/Trade Associations
  - American Chemistry Council
  - American Forest & Paper Association
  - American Petroleum Institute
  - Institute of Clean Air Companies
  - National Paint & Coatings Association
  - National Petrochemical & Refiners Association
  - Speciality Steel Industry of North America
  
- 2 - Private Citizens
  - Mr. David B. McCoy, Idaho Falls, ID
  - Mr. Stephen J. Washburn, Cincinnati, OH
  
- 8 - State/Local/Tribal Governments
  - State of Alabama
  - State of Florida
  - State of Idaho
  - State of Kentucky
  - State of Oklahoma
  - State of New Jersey
  - State of New York

State of Tennessee

- 2 - State Government-Related Organizations
  - Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
  - Missouri Petroleum Storage Tank Insurance Fund

**Table 1-1.**  
**List of Public Commenters on**  
**Site Remediation NESHAP (40 CFR part 63, subpart GGGGG)**

Docket Entry	Commenter Name and Address
IV-D-01	Uriel Smith Regulation Development Branch Division for Air Quality Natural Resources and Environmental Protection Cabinet Commonwealth of Kentucky July 31, 2002
IV-D-02	Alan Unchurch Valero Energy Corporation August 9, 2002
IV-D-03	James W. Haynes, Director State of Tennessee Department of Environment and Conservation Division of Superfund 401 Church Street Nashville, TN 37243-1538 August 20, 2002
IV-D-04	Dal A. Desnoyers, Acting Director Division of Environmental Remediation NY State Department of Environmental Conservation 625 Broadway Albany, NY 12233-7011 August 30, 2002
IV-D-05	Mark Vignovic, Director Environmental Control Weirton Steel Corporation 400 Three Springs Drive Weirton, WV 26062-4989 September 3, 2002
IV-D-06	Chuck Broschious, Executive Director Environmental Defense Institute Post Office Box 220 Troy, Idaho 83871 September 10, 2002
IV-D-07	Sally B. Mann, Director Office of Intergovernmental Programs Florida Department of Environmental Protections Marjory Stoneman Douglas Building 3900 Commonwealth Boulevard, MS 47 Tallahassee, FL 32399-3000 September 13, 2002

Docket Entry	Commenter Name and Address
IV-D-08	John Olashuk National Steel Corporation 4100 Edison Lakes Parkway Mishawaka, IN 46545-3440 September 20, 2002
IV-D-09	Thomas K. Scelfo, Senior Project Manager Woodard and Curran 1520 Highland Avenue Cheshire, Connecticut 06410 September 20, 2002
IV-D-10	Stephen J. Washburn, PE 9015 Cherry Blossom Lane Cincinnati, OH 45231-3805 September 20, 2002
IV-D-11	Gregory A. Wilkins, Manager, Environmental Support Corporate and Environmental Safety Marathon Ashland Petroleum LLC 539 South Main Street Findlay, OH 45840-3295
IV-D-12	William C. Olatin, Director Environmental Remediation Environmental, Health, and Safety Ashland, Incorporated Post Office Box 2219 Columbus, OH 43216
IV-D-13	Gary King, Chair CERCLA Research Center Subcommittee Association of State and Territorial Solid Waste Management Officials 444 North Capitol Street, NW Suite 315 Washington, DC 20001
IV-D-14	Carol R. Eighmey, Executive Director Missouri Petroleum Storage Tank Insurance Fund Post Office Box 836 Jefferson City, MO 65102
IV-D-15	William R. Miller III, PhD, Manager Regulatory and Legislative Interface Worldwide Facilities Group Ann M. Graniti, Project Manager GM Remediation Team Worldwide Facilities Group Troy Technology Park, Building A 1996 Technology Drive Troy, MI 48083

Docket Entry	Commenter Name and Address
IV-D-16	Frederick J. Kiehler, Senior Staff Engineer Delphi Facilities Services Group 5825 Delphi Drive Troy, MI 48098
IV-D-17	Joe Mayhew, Vice President, Regulatory and Technical Affairs Kerry Kelly, Team Leader, Waste Issues Robert Elam, Jr., Directory, Regulatory and Technical Affairs American Chemistry Council 1300 Wilson Boulevard Arlington, VA 22209
IV-D-18	Jeffrey O'Hearn Corporate Environmental Engineer Panolam Industries International, Incorporated 20 Progressive Drive Shelton, CT 06484
IV-D-19	Mark C. Barnes Manager of Air Compliance Environmental Affairs United States Steel Corporation 600 Grant Street Pittsburgh, PA 15219-2800
IV-D-20	Scott A. Thompson, Director Land Protection Division Oklahoma Department of Environmental Quality 707 North Robinson Oklahoma City OK 73101-1677
IV-D-21	John L. Wittenborn Joseph J. Green Counsel to the Speciality Steel Industry of North America Collier Shannon Scott, PLLC Washington Harbour Suite 400 3050 K Street, NW Washington, DC 20007-5108
IV-D-22	Nancy J. Dotson, Principal Environmental Representative Corporate Health, Safety, Environment and Security Eastman Chemical Company Post Office Box 511 Kingsport, TN 37662-5054

Docket Entry	Commenter Name and Address
IV-D-23	Charles P. Feerick Jr., Environmental Advisor Downstream and Chemicals Safety, Heath, and Environment Department ExxonMobil Refining and Supply Company 3225 Gallows Road Room 8B0230 Fairfax, VA 22037
IV-D-24	Olga M. Dominguez, Director Environmental Management Division National Aeronautics and Space Administration Headquarters Washington, DC 20546-0001
IV-D-25	Alison A. Keane, Esquire, Counsel, Government Affairs David F. Darling, PE, Directory, Environmental Affairs National Paint and Coatings Association 1500 Rhode Island Avenue, NW Washington, DC 20005-5597
IV-D-26	Scott Davis, Manager Environmental, Health, and Safety Pinnacle West Capital Corporation 400 North Fifth Street Phoenix, AZ 85072-3999
IV-D-27	Elaine A. Higgins, PE, Environmental Engineer Groundwater Services, Incorporated (on behalf of Southwest Shipyard, L.P.) 2211 Norfolk Suite 1000 Houston, Texas 77098-4044
IV-D-28	William Gerald Hardy, Chief Land Division Alabama Department of Environment Management 1400 Coliseum Boulevard Montgomery, AL 36110
IV-D-29	Jordan E. Jacobsen Alyeska Pipeline Service Company 1835 South Bragaw Street Anchorage, Alaska 99512

Docket Entry	Commenter Name and Address
IV-D-30	Timothy G. Hunt, Director of Air Quality Programs American Forest and Paper Association 1111 Nineteenth Street, NW Suite 800 Washington, DC 20036
IV-D-31	Ted Steichen, Senior Regulatory Analyst American Petroleum Institute 1220 L. Street, NW Washington, DC 20005-4070
IV-D-32	Matthew Frank The Boeing Company 1200 Wilson Boulevard Arlington, VA 22209-1989
IV-D-33	Donna Kraisinger, Vice President Health Safety and Environment BP American, Incorporated 333 South Hope Street Los Angeles, CA 90071
IV-D-34	Joni Arends, Waste Programs Director Concerned Citizens for Nuclear Safety 107 Cienega Santa Fe, NM 87501
IV-D-35	Philip T. Cavanaugh, Vice President Federal and International Government Relations ChevronTexaco Washington DC Office 1401 Eye Street, NW Suite 1200 Washington, DC 20005
IV-D-36	Mark Donham Coalition for Nuclear Justice Rural Route 1, Box 308 Brookport, IL 62910
IV-D-37	Andy Lawrence, Director Office of Environmental Policy and Guidance Department of Energy Washington, DC 20585
IV-D-38	David Plunkett, Technical Specialist Susan E. Taylor, Legal Department Paul Bork, Legal Department The Dow Chemical company 2301 North Brazosport Boulevard Freeport, Texas 77541-3257

Docket Entry	Commenter Name and Address
IV-D-39	Norbert Dee, Ph.D., Director Environmental Affairs National Petrochemical and Refiners Association 1899 L Street NW Suite 1000 Washington, DC 20036-3896
IV-D-40	J Habazin Neville Chemical Company 2800 Neville Road Pittsburgh, PA 15225-1496
IV-D-41	Kathleen E. Trever, Coordinator-Manager State of Idaho INEEL Oversight Program 1410 North Hilton Boise, ID 83706
IV-D-42	William O'Sullivan, PE, Administrator Air Quality Permitting Program Bureau of Air Quality Engineering State of New Jersey Department of Environment Protection Post Office Box 27 Trenton, NJ 08625
IV-D-43	Donald R. Schregardus, Deputy Assistant Secretary of the Navy (Environment) Department of the Navy Office of the Assistant Secretary (Installations and Environment) 1000 Navy Pentagon Washington, DC 20350-1000
IV-D-44	David C. Foerter, Deputy Director Institute of Clean Air Companies 1660 L Street, NW Suite 1100 Washington, DC 20036-5603
IV-D-45	John R. Evans, PE, Manager Environmental Affairs Lyondell Chemical Company One Houston Center 1221 McKinney Suite 1600 Houston, TX 77253-3646
IV-D-46	Corinne Whitehead, President Coalition for Health Concern 1091 US 641 North Benton, Kentucky 42025

Docket Entry	Commenter Name and Address
IV-D-47	David B. McCoy Attorney at Law 2940 Redbarn Lane Idaho Falls, ID 83404
IV-D-48	Scott Anderson, PE URS Corporation 2325 Maryland Road Willow Grove, PA 19090
IV-D-49	Sonja Bazemore Favors, Environmental Engineer II Alabama Department of Environment Management 1400 Coliseum Boulevard Montgomery, AL 36110
IV-D-50	Louis Zeller Blue Ridge Environmental Defense League Post Office Box 88 Glendale Springs, NC 28629
IV-G-1	Zygmunt V. Osiecki, Vice President Plant Engineering and Environmental Services Neville Chemical Company 2800 Neville Road Pittsburgh, PA 15225-1496

## 2.0 RESPONSE TO COMMENTS ON PROPOSED RULE

### 2.1 RULE SCOPE

#### 2.1.1 Need for Site Remediation NESHAP

Comment: Six commenters [Docket entries IV-D-08, IV-D-15, IV-D-19, IV-D-26, IV-D-29, IV-D-31] disagreed with our decision to establish a NESHAP regulating HAP emissions from site remediation activities. The commenters argued that such a NESHAP is not needed for several reasons: 1) the level of HAP emissions from the sources that would be subject to the rule is too low to warrant regulation by a NESHAP; 2) adequate air emissions controls already are imposed at sites subject to risk assessment; and 3) a NESHAP discourages site owners and operators from initiating and conducting voluntary cleanups.

Response: Section 112 of the CAA requires that we establish MACT standards for the control of HAP from both new and existing major sources of HAP. Section 112(a)(1) defines a "major source" as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants." (Emphasis added.) We have codified essentially this same definition into section 63.2 of the General Provisions to Part 63. We have long interpreted this definition as requiring that all sources of HAP within a plant site must be aggregated, so long as the sources are geographically adjacent and under common control (see e.g., 59 FR 12412, March 16, 1994). This interpretation was sustained by the court in

National Mining Ass'n v. EPA, 59 F. 3d 1351, 1355-1359 (D.C. Cir. 1995). A consequence, then, is that sources of HAP which are part of a major source, but which would not themselves (viewed separately) be major sources, are still classified as major sources and are subject to the requirements of CAA section 112(c) and (d), which command us to list all categories of major sources and establish technology-based standards for those sources. The result, for purposes of site remediation activities, is that all such remediations conducted at locations which, taken as a whole are major sources, are themselves required to be controlled by the section 112(d) standards we are finalizing in this rule.

We determined that there are major sources of HAP where site remediations are now being conducted or may be conducted in the future to clean up contaminated environmental media or certain stored or disposed materials that pose a reasonable potential threat to contaminate environmental media. The levels of HAP emissions from remediation activities at a given cleanup site depend on a combination of site-specific factors including the type of remediation processes used and activities conducted; the quantity, HAP composition, and other characteristics of the remediation material; and the time required to complete the cleanup. We recognize that at some cleanup sites the levels of HAP emissions from the remediation activities will be low. However, at other cleanup sites the potential level of HAP emissions from the remediation activities can be substantial and appropriate air pollution controls are needed to protect public health and the environment.

We already have established requirements under our RCRA hazardous waste corrective action and CERCLA Superfund programs which address the air emissions from certain remediation activities based largely on site-specific risk assessments (these programs are discussed further in section 2.1.2 of this document). However, these requirements do not universally apply to all site remediations with the potential to emit HAP. There are site remediations not subject to federally-enforceable requirements under our RCRA hazardous waste corrective action and CERCLA Superfund programs. To meet our congressional directive under CAA section 112, we are promulgating the Site Remediation NESHAP applicable to those

site remediations not subject to federally-enforceable requirements that will effectively control HAP emissions.

Finally, the fundamental objective of a site remediation is to mitigate a detected risk to public health or the environment by successfully completing the cleanup of media or other materials at the site that is contaminated by a hazardous substance. It is commendable when a site owner or operator voluntarily initiates and conducts a cleanup. However, the fact that a cleanup is being conducted voluntarily as opposed to being conducted to comply with a Federal or State regulatory requirement or fulfill a court directive does not obviate or excuse the use of appropriate air pollution controls to those site remediation activities with the potential to emit substantial quantities of HAP.

### **2.1.2 Cleanups Regulated Under CERCLA Superfund and RCRA Corrective Action Programs**

Comment: We received comments supporting our proposal that site remediations conducted for CERCLA Superfund and RCRA corrective action cleanups not be subject to the Site Remediation NESHAP [Docket entries IV-D-05, IV-D-08, IV-D-11, IV-D-12, IV-D-13, IV-D-15, IV-D-17, IV-D-19, IV-D-23, IV-D-25, IV-D-26, IV-D-31, IV-D-45]. These commenters believe that these RCRA and CERCLA cleanup programs do have appropriate provisions which provide for the protection of public health and the environment from air pollutants emitted from site remediation activities on a site-specific basis. Other commenters [Docket entries IV-D-06, IV-D-34, IV-D-36, IV-D-46, IV-D-50] opposed the exclusion of these site remediations from being subject to the Site Remediation NESHAP because they assert that neither of the RCRA and CERCLA programs have air emission standards for site remediation activities and that the intent of CAA section 112 is to establish NESHAP for HAP emissions from these activities to address these RCRA and CERCLA regulatory gaps.

Response: The RCRA hazardous waste corrective action and CERCLA Superfund programs do not establish national air standards for site remediations. These programs, however, do have provisions which provide for the protection of public health and the environment from air pollutants emitted from

these activities on a site-specific basis. As we stated at proposal, we believe that the established Federal requirements provide an appropriate and effective regulatory approach to address air emissions from those remediation activities performed under CERCLA authority as a remedial action or a non-time critical removal action, or under RCRA authority at permitted or Federal Order RCRA corrective action sites.

The Superfund program is designed to protect public health and the environment while providing the flexibility to use effective and innovative remediation approaches that best suit the site-specific conditions at each CERCLA site (CERCLA section 121). The Superfund program conducts extensive evaluation of the contamination at each CERCLA site (see 40 CFR 300.430). As part of the evaluation process, a decision document (i.e., Record of Decision (ROD)) is developed for response actions, documenting the extent of contamination and the cleanup method(s) to be used at the site. Under this process, a site-specific analysis, considering the impacts to air, soil and groundwater, is conducted and an appropriate remedy is selected. During the ROD process, the general public is given the opportunity for input in the decision-making process through public hearings and submission of written comments. The public plays an important role in identifying and characterizing site-specific factors, such as the type of contaminants, the level and extent of contamination and other site-specific factors. We believe this procedure results in selection of the best plan for cleaning up each site and achieving the program's goals.

As implemented under the requirements of RCRA, hazardous waste treatment, storage and disposal facilities (TSDF) must obtain a permit specifying requirements for managing hazardous waste. As a condition of obtaining this permit, facilities are required to undertake corrective action addressing releases of hazardous waste and hazardous constituents from units at the facility which do not themselves require RCRA permits (solid waste management units) (RCRA section 3004(u)). For such designated contamination areas at TSDF, requirements for the cleanup of the contamination are included in the facility's RCRA permit, or Federal Order where applicable. Such cleanup activities are known as "corrective actions." Although RCRA is a separate program from Superfund, the RCRA permitting or Federal Order process for TSDF share several

significant characteristics with Superfund cleanup activities at CERCLA sites. First, it is also the intent of the RCRA Corrective Action program to protect public health and the environment while allowing flexibility in choosing solutions to eliminate or reduce site contamination. Second, RCRA permitting and Federal Order procedures involve the public in the decision-making process through informal public meetings, public hearings or written comment. Finally, an extensive site-specific evaluation is performed at the RCRA facility to evaluate the extent of the contamination, while considering appropriate remedies through a multi-media (i.e., air, soil, groundwater) perspective (see also 67 FR 49406 for additional explanation).

In short, we view the hazardous waste corrective action program under RCRA and the Superfund program under CERCLA as the functional equivalents of the establishment of MACT standards under CAA section 112. These programs, as part of the ROD process for Superfund cleanups and the RCRA permitting process for corrective action cleanups, require consideration of the same HAP emissions that we do in establishing MACT standards, and provide opportunity for public involvement in these site-specific remediation determinations. The RCRA and CERCLA statutes apply more specifically to the remediation process than does MACT under the CAA and, unlike the CAA, authorize site specific means of dealing with remediation activities and their associated HAP emissions. We consequently are exempting these activities from the MACT standards promulgated in this rule.

Comment: Commenter [Docket entry IV-D-17] requests that the EPA clarify in the final rule that the exemption for sites cleaned up under CERCLA authority does not require the site to have been listed on the National Priorities List (NPL). The commenter believes it is the EPA's intent that the exemption in rule apply to any site cleaned up under CERCLA authority.

Response: We have revised the regulatory language in the final rule to state that a site remediation is not subject to the Site Remediation NESHAP if the remediation will be performed under the authority of CERCLA as a remedial action or a non time critical removal action. There is no requirement for a site to have been listed on the National Priorities List to qualify for this exemption.

Comment: Commenter [Docket entry IV-D-21] requests that EPA clarify that a facility with a permit issued by EPA or an authorized State to conduct corrective action under RCRA is exempt from the rule, whether or not the facility currently is a TSDF. For example, a facility could initiate corrective action under a RCRA TSDF permit granted to allow the facility to store hazardous waste. After ceasing to store hazardous waste, the facility may modify the permit to drop TSDF status but continue with the corrective action. Thus, the facility may not be a TSDF but nevertheless is performing a permitted RCRA corrective action.

Response: We have revised the regulatory language in the final rule to state that a site remediation is not subject to the Site Remediation NESHAP if the site remediation will be performed under a RCRA corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the EPA or a State program authorized by the EPA under RCRA section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA section 7003. If a particular site remediation does not meet RCRA corrective action conditions, then your site remediation is not eligible for the exemption from the Site Remediation NESHAP.

Comment: Commenter [Docket entry IV-D-12] requests that the EPA expand the exemption to include remediation/cleanups undertaken in compliance with a consent order.

Response: The final Site Remediation NESHAP exempts site remediations undertaken in compliance with a consent order to the extent that the subject site remediation is a RCRA corrective action required by orders authorized under RCRA or required by orders authorized under RCRA section 7003. If a consent order is one that is not authorized under RCRA section 7003, then it would be subject to the final Site Remediation NESHAP.

### **2.1.3 Cleanups Regulated Under State and Voluntary Programs**

Comment: Many commenters [Docket entries IV-D-03, IV-D-04, IV-D-09, IV-D-12, IV-D-13, IV-D-15, IV-D-16, IV-D-17, IV-D-18, IV-D-19, IV-D-20 IV-D-21, IV-D-22, IV-D-23, IV-D-25, IV-

D-26, IV-D-27, IV-D-28, IV-D-30, IV-D-31, IV-D-32, IV-D-39] requested that in addition to CERCLA Superfund and RCRA corrective action cleanups, that other cleanups conducted under Federal or State oversight not be subject to the rule, where such cleanups are conducted following CERCLA or RCRA requirements. The commenters argue that these cleanups conducted under State Superfund, Brownfield, voluntary cleanup, or other similar programs are subject to emissions controls and requirements that are substantially similar to those in the CERCLA or RCRA programs. The proposed rule may produce excessive hardship on participants of State Brownfield redevelopment and voluntary cleanup programs. This would create a major disincentive to owners and operators from participating in these programs, which often provide a less costly and a less time consuming alternative to remediation conducted pursuant to CERCLA or RCRA.

Response: The final Site Remediation NESHAP applies only to site remediations that meet the three applicability conditions specified in the rule. The three conditions are: the facility is a major source of HAP, a site remediation is being conducted at the facility, and a non-remediation activity is also being conducted at the facility that meets an affected source definition of an another 40 CFR part 63 MACT standard. We have determined that site remediations at those sites that meet these applicability conditions warrant the implementation of air pollution controls to reduce the emission of organic HAP to the atmosphere. As discussed in our previous response, we are exempting from the rule requirements those sites that meet the rule applicability conditions where the site remediations are conducted for CERCLA (Superfund) or RCRA corrective action cleanups. This includes the site remediations in one of 39 States the EPA has authorized to date to oversee cleanups at TSDF under RCRA Corrective Action. Site remediations administered under these federally-enforceable programs address the organic HAP emissions from the site remediations on a site-specific basis.

The overall objective of any site remediation, whether it be a Federal required, State required, or voluntary cleanup, is to remove the threat to human health and the environment posed by the presence of hazardous substances in the contaminated media and wastes that can potentially contaminate the media at the site. However, the actions taken at a given

contamination site that remove the hazardous substances from water or soil by transferring those substances to the air is not in the best interest of protecting human health and the environment from exposure to these hazardous substances. Unlike CERCLA or RCRA corrective action cleanups, State regulatory and voluntary cleanup programs are not uniform on a national basis, any requirements imposed on a given site remediation are not federally-enforceable by the EPA, and the programs may not specifically address site remediation air emissions. For these reasons, we cannot view these activities as the functional equivalent of MACT, and therefore we cannot justify extending the same exemption we provide for CERCLA Superfund or RCRA corrective action cleanups to site remediations conducted for State regulatory and voluntary cleanup programs. Therefore, we are maintaining the applicability of the final rule to those site remediations conducted for State regulatory and voluntary cleanup programs where the site remediation meets the applicability conditions specified in the rule.

#### **2.1.4 Leaking Underground Storage Tank Cleanups**

Comment: Many commenters [Docket entries IV-D-08, IV-D-11, IV-D-12, IV-D-14, IV-D-15, IV-D-16, IV-D-17, IV-D-43] agreed with the decision to modify the site remediation source category listing to exclude remediation activities at leaking underground storage tanks (UST) located at gasoline service stations. However, commenters argue that because the types, sizes and purpose of UST used for the storage of motor fuels or heating oils at all types of commercial and industrial properties are comparable to those located at gasoline service stations, then remediation activities associated with any UST contamination cleanups regardless of location should also not be subject to the Site Remediation NESHAP.

Response: The rationale for our decision to modify description for the site remediation source category to exclude remediation activities from leaking UST located at gasoline service stations is based on our estimates of the total HAP emissions from a typical cleanup of contamination from the size and types of underground tanks commonly used at gasoline service station sites. These estimates indicate that

the level of HAP emissions from these sites would be significantly below the major source threshold levels (i.e., less than 10 ton/yr of a single HAP or 25 ton/yr of all HAP) (see 67 FR 49400). Gasoline service station sites are area sources. Site remediation was listed as a source category for MACT standard development to address HAP emissions at major sources where remediation technologies and practices also are used at the site to clean up contaminated environmental media (e.g., soils, groundwaters, or surface waters) or other materials that pose a reasonable potential threat to contaminate environmental media. Our decision was not based on a determination that UST contamination cleanups regardless of location should not be included in the site remediation source category. Therefore, we believe that if a leaking UST cleanup is conducted at a major source site then it is appropriate (and indeed mandated) to require the cleanup activities comply with the Site Remediation NESHAP requirements.

Comment: One commenter [Docket entry IV-D-17] requested the EPA clarify that this exclusion applies to residential, farm, or gasoline station sites even when the contamination at these sites has migrated from a regulated site. The commenter believes that the EPA intended this result but the proposed rule language does not make this intent clear.

Response: As stated in the above response, the rationale for our decision to modify description for the site remediation source category to exclude remediation activities from leaking UST located gasoline service stations is based on our estimates of the total HAP emissions from a typical cleanup of contamination from the size and types of underground tanks commonly used at these sites. Our intent is to exclude from the site remediation source category description only those remediation activities required for the cleanup of contamination resulting from leaking UST physically located at a gasoline service station (as well as all remediation activities at residential and farm sites). This action to modify the description for the site remediation source category does not, and never was intended, to relieve an owner or operator's responsibility to clean up contamination originating at his or her site that subsequently migrates beyond the site's property boundaries regardless if this migration occurs above ground or underground.

### **2.1.5 Radioactive Mixed Waste Cleanups**

Comment: Six commenters [Docket entries IV-D-06, IV-D-34, IV-D-36, IV-D-46, IV-D-47, IV-D-50] opposed the proposal that site remediations conducted to clean up mixed waste (materials that contains both hazardous waste and radioactive materials) not be subject to the Site Remediation NESHAP. These commenters argue that the existing Federal regulations for mixed waste are not adequately addressing the HAP emissions from remediation activities at existing facilities managing these types of wastes. Two commenters expressed support for the proposal [Docket entries IV-D-25, IV-D-37]. These commenter argue that mixed wastes are already appropriately and protectively managed under the Atomic Energy Act and Nuclear Waste Policy Act.

Response: Radioactive mixed wastes (RMW) are wastes that contain radioactive materials as well as wastes listed or identified as hazardous under RCRA. Radioactive mixed wastes must be managed according to RCRA subtitle C regulations. In addition, these wastes are subject to standards administered by the Nuclear Regulatory Commission (NRC) under the Atomic Energy Act and Nuclear Waste Policy Act of 1982 that address the safe handling and disposal of radioactive waste.

In developing the air standards under CAA authority for stationary sources that potentially may manage wastes also subject to requirements under other legislative authorities, we consider the management practices required for these wastes to avoid inconsistencies between any CAA requirements that might be established and existing requirements under the other applicable authorities. We reviewed the special nature of existing requirements for managing radioactive mixed wastes with respect to requirements for the control of organic HAP emissions we proposed to establish under the Site Remediation NESHAP. In certain cases, the air pollution controls used as the basis for the standards under the Site Remediation NESHAP are not compatible with the NRC requirements for safe handling of radioactive mixed wastes. For example, drums used to store radioactive mixed waste cannot be sealed with vapor leak-tight covers because of unacceptable pressure buildup of hydrogen gas to levels that can potentially cause rupture of the drum or create a potentially serious explosion hazard (a hazard

which, by any commonsense measure, exceeds risk posed by emission of organic HAP). (See Air Docket ID No. OAR-2002-0021, Docket Item IV-B-1; see also S. Rep. No 228, 101st Cong. 1st sess. at 168 ("In cases where control strategies for two or more different pollutants are in actual conflict, the Administrator shall apply the same principle - maximum protection of human health shall be the objective test").)

The generation of hydrogen gas is a result of the radiolytic decomposition of organic compounds (i.e., plastics) and/or aqueous solutions within the container. Plastics are commonly used as a barrier to alpha radiation both in handling operations and in waste packaging. Over time, the alpha particle causes the hydrolysis of chemical bonds within the plastic material which results in the release of hydrogen gas. Likewise, hydrolysis of aqueous solutions will yield hydrogen. Additionally, radiation-induced degradation and biodegradation of organic low-exchange resin waste, which are also RMW, generated during water treatment at nuclear facilities, can result in the production of gaseous products (i.e., hydrogen and carbon dioxide) which in turn can result in pressure buildup and failure of the container. Consequently, a drum used for storage of radioactive mixed wastes must be continuously vented through special filters in accordance with technical guidance issued by the NRC to prevent the hydrogen concentration in the drum from reaching dangerous levels. Because of pressure build-up inside the container, a vent for gaseous compounds is necessary to prevent failure of a high-integrity container (i.e., vent designs incorporated into high integrity containers restrict the release of radionuclides from the container into the environment while allowing the gas to be vented). (See RCRA Docket Items F-91-CESP-00046 and F-94-CESF-S0001, which are part of the administrative record for this rule.)

In accordance with the Waste Isolation Pilot Plant (WIPP), Carlsbad, New Mexico, Waste Acceptance Plan (WAP), wastes that are to be shipped to the WIPP must be in containers that are vented to prevent the buildup of pressure. The container vents must be filtered to ensure that no radioactive waste components are released. For example, the Hazardous Waste Permit for the WIPP, dated November 25, 2002, in section M1-1d describing container management practices states on page M1-8 ... "Because containers at the WIPP will

contain radioactive waste, safety concerns require that containers be continuously vented to obviate the buildup of gases within the container. These gases could result from radiolysis, which is the breakdown of moisture by radiation. The vents, which are nominally 0.75 in. (1.9 centimeters) in diameter, are generally installed on or near the lids of the containers. These vents are filtered so that gas can escape while particulates are retained." In addition, the permit in the section describing the requirements for the standard transuranic mixed waste drums states on page M1-2, ..."One or more filtered vents (as described in Section M1-1d) will be installed in the drum lid to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization.

To comply with these requirements, the drum lid is punctured to release any buildup of potentially explosive hydrogen gas and a NUCFIL filter vent is attached. The function of a NUCFIL filter vent is to retain radionuclides inside a container while allowing hydrogen and other gases (e.g., VOC) to pass through to the atmosphere. In particular, the carbon composite membrane used in the filter vent does not inhibit the passing of VOC's from the container into the atmosphere.

Because it was judged an unsafe practice to store RMW drums/containers with tight covers, and because the WIPP Waste Analysis Plan requires that containers be vented for shipment to the WIPP, the EPA determined that many DOE facilities may be unable to meet the tight cover control device criteria for containers as specified in the proposed Site Remediation NESHAP. In addition, we were unable to determine, at the time, if there were any available technologies that could be applied to the RMW containers that would control organic air emissions in a safe and cost-effective manner while also complying with WIPP and other AEA and NWPA requirements.

Information gathered and reviewed following proposal of the Site Remediation NESHAP does not indicate that the situation regarding the safety issue related to storage of RMW has changed since proposal. The potentially conflicting requirements for containers (and other storage units) to be vented under one set of rules versus the requirements for closed, tight fitting covers under the CAA rules remains to be resolved. We are not aware of any available device to control

organic air emissions (such as an activated carbon filter) that can be used in combination with a NUCFIL filter vent on a RMW container. No available technologies have been identified that could be applied to the RMW containers that would control organic air emissions in a safe and cost-effective manner while also complying with WIPP and other AEA and NWPA requirements. With no known controls in place on these sources, the MACT floor for RMW sources (e.g., RMW containers) appears to be no control beyond that already provided by the NRC and other applicable regulations. Codifying this literal perpetuation of the level of control provided by another regulatory system as a MACT standard seems a needless expenditure of resources since it would not change existing practice or otherwise provide benefits not already provided by the existing regulatory scheme. Therefore, we have retained in the final rule an exemption from the air pollution control requirements under the Site Remediation NESHAP for remediation material management units (e.g., tanks, containers, and surface impoundments) managing RMW.

Although the technical information and data we have collected support inclusion of an exemption for remediation material management units managing RMW from the air pollution control requirements under the Site Remediation NESHAP, we concluded from our review of this information that this is not the case for site remediation treatment process vents and equipment leaks. The technical and safety concerns for the required controls for organic emissions from containers and tanks managing RMW are not an issue with the controls required by the Site Remediation NESHAP for treatment unit process vents and equipment leaks if applied to remediation material streams that are classified as RMW. We have not identified any conflicting regulatory requirements that would preclude the use of air pollution controls on these sources as is the case with tanks and containers. Also, since 1990, remediation material streams classified as RMW have been subject to, and in compliance with, the air pollution control requirements in the national air standards we promulgated under RCRA authority to control total organic emissions from hazardous waste TSDF treatment process vents (subpart AA in 40 CFR parts 264 and 265) and equipment leaks (subpart BB in 40 CFR parts 264 and 265). The air pollution control requirements under these RCRA air rules are the same as the requirements for site

remediation treatment process vents and equipment leaks included in this final Site Remediation NESHAP. With demonstrated controls in place on these treatment unit and equipment component sources, MACT for these RMW sources (i.e., process vents and equipment leaks) would be established at the control levels required under these rules. Because the technical issues related to safety concerns for RMW containers and other storage units do not apply to treatment unit process vents and equipment leaks, we have revised Site Remediation NESHAP to limit the exemption to only remediation material management units managing RMW. Remediation activities involving the cleanup of RMW that meet the rule applicability criteria are subject to standards for treatment unit process vents and equipment leaks under the final Site Remediation NESHAP.

#### **2.1.6 Cleanups at Area Sources**

Comment: One commenter [Docket entry IV-D-42] stated that the Site Remediation NESHAP should not be limited only to HAP major sources but should apply to certain area sources. The commenter argues that limiting the rule applicability to sites exceeding the major source threshold levels would result in most site remediations being exempt from the rule since the majority of site cleanups occur at facilities where no manufacturing or other activities continue to occur. Commenter recommends that site remediation activities be subject to the rule if: 1) process vent(s) of the source operation emits more than 3.0 pounds per hour (lb/hr) of HAP or 3.1 tpy of HAP, or 2) remediation material HAP concentration is more than 10 parts per million by weight, or 3) the individual process vents involved in the remediation have a flowrate of more than 211 standard cubic feet per minute (scfm) and a HAP concentration more than 20 ppmv.

Response: Under the final Site Remediation NESHAP, a facility that remains an area source after considering the HAP emissions from any existing sources plus the estimated potential HAP emissions from the anticipated site remediation activities is not regulated because it does not meet the major source applicability criteria. To regulate these area sources, the CAA requires that they be listed prior to

establishing standards. An area source can be listed for regulation in one of two ways. One method is to list the category for regulation in accordance with CAA sections 112(k)(3)(B)(ii) and 112(c)(3) through the Urban Air Toxics Strategy (UATS). This requires that we identify and list area source categories representing at least 90 percent of the emissions of 30 HAP listed as presenting the greatest threat to public health in urban areas. We published our first list of area source categories in the UATS on July 19, 1999 (64 FR 38721), with subsequent amendments on January 30, 2001 (66 FR 8220), June 26, 2002 (67 FR 43112) and November 22, 2002 (67 FR 70427) and site remediation activities at area sources were not listed under those actions. The second method is to conduct an area source finding for the specific activities within the source category, pursuant to section 112(c)(3) of the CAA. This requires that we find that the "category or subcategory of area sources . . . presents a threat of adverse effects to human health and the environment." Conducting such a finding is discretionary and we have chosen not to conduct an area source finding for site remediation.

## **2.2 DEVELOPMENT OF PROPOSED RULE**

### **2.2.1 Selection of Regulated Pollutants**

Comment: We received comments on our proposal to regulate the same list of organic HAP compounds used for the OSWRO NESHAP and not to regulate metal or other inorganic HAP under the Site Remediation NESHAP. Two commenters [Docket entries IV-D-34, IV-D-50] requested that we reconsider our selection of which HAP are regulated under the rule to include metals and inorganic compounds listed as HAP. In particular, the commenters stated that beryllium and other heavy metals should be included because these HAP cause harm to public health and welfare. Other commenters [Docket entries IV-D-08, IV-D-17, IV-D-19, IV-D-21, IV-D-25, IV-D-30, IV-D-39, IV-D-45] supported our decision not to regulate remediation activities that emit metal HAP or other inorganic HAP. One commenter [Docket entry IV-D-24] stated that the rule should be based on an appropriate HAP list developed specifically for site remediation instead of using the list for the OSWRO NESHAP

under 40 CFR 63 subpart DD. This list should not include compounds for which no analytical methods exist under EPA SW 846 or do not exist in groundwater. One commenter [Docket entry IV-D-45] noted that the list of HAP in Table 1 of the proposed Site Remediation NESHAP included 1-1 dimethyl hydrazine which is not in the list of HAP in Table 1 to the OSWRO NESHAP, as amended in 1999.

Response: A site remediation potentially could be required at any of a wide variety of industrial facilities, manufacturing plants, waste treatment and disposal facilities, and other types of sites. Consequently, the contaminating substances at a site requiring cleanup could be any of the organic, metal, or inorganic chemicals or groups of chemicals that are listed as HAP pursuant to CAA section 112(b). However, some of these contamination substances that are also listed as HAP have no or minimal potential to be emitted to the atmosphere from the site remediation activities performed at the site to clean up the contamination (notwithstanding that metal and other inorganic HAP may be present in the material being remediated).

In developing the proposed Site Remediation NESHAP, we considered all of the HAP listed pursuant to section 112(b) for regulation by the rule (see 67 FR 49413). Based on the information available to us at proposal regarding the cleanup of media contaminated with metals or other inorganic HAP, many of the remediation techniques used for these cleanups do not release the metals or inorganic HAP to the atmosphere. In cases where remediation material containing a metal or inorganic HAP is burned in an incinerator or other combustion unit, the combustion unit must already meet air standards under the CAA and RCRA that limit organic, particulate matter, metals, and chloride emissions. Therefore, we concluded that metals and other inorganic compounds listed as HAP pursuant to CAA section 112(b) do not need to be regulated by the Site Remediation NESHAP. We specifically requested comment at proposal on our conclusion. We received some additional information from commenters supporting our decision not to include any metal or inorganic HAP on our list of regulated HAP for the Site Remediation NESHAP. We received no information to support a determination that metal or inorganic HAP are being emitted from site remediation activities in quantities that warrant the development of additional national

air standards. Therefore, we continue to believe that metal and other inorganic compounds HAP do not need to be addressed by the Site Remediation NESHAP.

In selecting the organic HAP to be regulated by the Site Remediation NESHAP, we chose at proposal to be consistent with the approach we used for the OSWRO NESHAP as well as other NESHAP promulgated for source categories with large diversity in the organic chemical constituents present in the materials managed at any given facility. Under this approach, a specific list of pollutants is selected that reasonably ensures MACT control of the organic HAP emitted from the source. We used this approach to develop the HAP list for the OSWRO NESHAP by evaluating each chemical or chemical group listed as a HAP in CAA section 112(b) with respect to its potential to be emitted from a waste management or recovery operation (see 59 FR 1921).

The OSWRO NESHAP does not apply to OSWRO sources managing wastes received from site remediations. However, the data base that we used to select the list of HAP for the OSWRO NESHAP included remediation wastes sent to hazardous waste TSDF. We concluded that this data base is also representative of the range of organic HAP chemicals having the potential to be emitted from the sites requiring clean up of media contaminated with volatile or semi-volatile organics and other remediation material. Therefore, we proposed that same list of organic HAP used for the OSWRO NESHAP also be used for the Site Remediation NESHAP. We requested comment at proposal regarding the use of this list of organic HAP for the Site Remediation NESHAP. We received no new data from commenters, and have not ourselves found additional data since proposal to cause us to alter our conclusion. We continue to believe that these data are the best information available representative of the range of organic HAP chemicals having the potential to be emitted from site remediation activities, and that it is most appropriate to use the HAP list from the OSWRO NESHAP also for the Site Remediation NESHAP.

When we developed the HAP list for the OSWRO NESHAP, we evaluated each organic chemical or chemical group listed as a HAP in CAA section 112(b) with respect to its potential to be emitted from a waste management or recovery operation (see 59 FR 51921). The criteria used to characterize and evaluate emission potential was based on a chemical constituent's

Henry's law constant, evaluation of the aqueous and organic volatility characteristics of the chemical, and the ability of the analytical test methods to quantitate the chemical. Based on our evaluation, we developed the list of specific organic HAP compounds or compound groups to be regulated under the rule (Table 1 in the OSWRO NESHAP). We later decided to delete eight chemicals from our initial list because we concluded that there is low potential for these compounds to be emitted from OSWRO (see 61 FR 34153). Dimethyl hydrazine was one of the eight compounds we removed from the list. Table 1 in the proposed Site Remediation NESHAP inadvertently included dimethyl hydrazine as one of the regulated HAP. We have corrected Table 1 in the final Site Remediation NESHAP to accurately reflect our intent by deleting dimethyl hydrazine from the list.

Comment: One commenter [Docket entry IV-D-48] stated that the proposed Site Remediation NESHAP is silent on control of important non-HAP, non-VOC compounds that might be released as part of site remediation activities such as to ozone depleting substances regulated under Title VI of the Clean Air Act which have been shown to reduce stratospheric ozone.

Response: The Site Remediation NESHAP is promulgated under authority of Section 112 in Title III of the Clean Air Act (CAA). Title III does not contain provisions for regulating non-HAP compounds. This section of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. While air pollution controls used to control a particular HAP may also control criteria or other types of air pollutants, the purpose of a NESHAP is to establish national standards to address HAP emissions from stationary sources. Since ozone depleting compounds are not HAP they are not regulated by the Site Remediation NESHAP.

### **2.2.2 Selection of MACT floor**

Comment: One commenter [Docket entry IV-D-29] challenged our determination of the MACT floor level for existing sources because it is not based on data that represent the types of air pollution controls actually being used at those site

remediations that are not exempted and would be subject to the rule. The commenter disagrees with our statement at proposal that the MACT floor for existing sources would be more stringent than no controls. The commenter contends that obtaining data for the sources actually subject to the rule would show that the MACT floor level for the existing sources at these sites should be no control.

Response: The MACT floor is the minimum control level allowed for a NESHAP and is defined under CAA section 112(d)(3). In developing the Site Remediation NESHAP, we did not make a determination of MACT floor level for existing sources. As we discussed in the preamble to the proposed rule (see 67 FR 49415), we chose not to determine a MACT floor level for existing sources because, in our judgement, the data available to us were not sufficient to determine the average emissions limitation achieved by the best performing 12 percent of existing sources at site remediations nationwide (i.e., existing source MACT floor as defined under CAA section 112(d)(3)). Instead, we based our selection of control requirements for the proposed rule on alternatives beyond the MACT floor.

We have reviewed our data sources to determine the availability of additional information on air pollution controls currently in use for site remediation activities. No new data or information to update and supplement our original data were provided by commenters on the proposed rule. We concluded that our original database remains the best available source of information available to us.

### **2.2.3 Affected Sources**

Comment: One commenter [Docket entry IV-D-04] requests that the affected "remediation material management units" subject to the rule should be defined more explicitly. It is the commenter's understanding that the types of material management units that the rule is intended to apply to relate to liquids handling (oil/water separators, surface impoundments, etc.). This should be explicitly stated in the regulations.

Response: Under the final Site Remediation NESHAP, a

"remediation material management unit" is defined as a tank, container, surface impoundment, oil/water separator, organic/water separator, or transfer system used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material. Also, included in the rule is an explicit definition for each of the unit types (e.g., a definition for "tank", "container", etc.). Finally, as discussed in detail in Section 2.3.1 of this document, we have revised the definition of "remediation material" to clarify the term's meaning consistent with our intent that the rule address HAP emissions from site remediations to clean up environmental media contaminated with HAP (e.g., soils, groundwaters, surface waters) as well as cleanup at a site certain stored or disposed materials that contain HAP.

Comment: Two commenters [Docket entries IV-D-8, IV-D-19] requested clarification of application of the rule to vacuum trucks. Under the commenters' interpretation of the proposed rule, a vacuum truck could be considered both a container (remediation material management unit) and a process vent. Additionally, the commenters believe that the installation of emission control devices on vacuum trucks is impractical and unnecessarily burdensome. Vacuum trucks involved in short duration cleanups of contamination typically do not remain at the site of the remediation activity for more than brief periods of time.

Response: For the purpose of implementing the Site Remediation NESHAP, a vacuum truck is considered a container. Under the rule, affected containers (except containers used for waste stabilization processes) are required to use covers or other types of suppression controls. We believe that a vacuum truck can be readily operated in a manner that meets these container air pollution requirements and to do so is not unnecessarily burdensome to the owners and operators. Vacuum trucks may qualify for the short duration exemption where the cleanup is exempted from the container air pollution control requirements if the entire cleanup can be physically completed within 30 days and meet the requirements for the exemption specified in the rule (see section 2.3.4 of this document for a complete discussion of this exemption).

#### **2.2.4 Environmental, Energy, and Economic Impact Estimates**

Comment: One commenter [Docket entry IV-D-29] stated that the environmental and economic impact estimates we presented for the proposed rule overstate the nationwide HAP emission reductions achievable through by this rule and understate the costs of compliance with the rule. A second commenter [Docket entry IV-D-44] remarked that the cost of site remediation control equipment can be very affordable.

Response: We believe that our estimates of the nationwide environmental, energy, and economic impacts associated with the Site Remediation NESHAP are reasonable. The impact estimates for the proposed rule are based on the best information available to us including remediation waste quantity and treatment practice data for the year 1997 and earlier. No new data or information applicable to the impact estimates was provided by commenters on the proposed rule. Since proposal we have reviewed our data sources to determine the availability of additional information to update and supplement our original database used for the impact estimates. We concluded that our original database remains the best available source of information available to us for estimating impacts for this rulemaking. Furthermore, the changes made since proposal for the final rule do not change any of the assumptions we made for our original impact estimates. Therefore, we believe that our impact estimates for the proposed rule remain valid and applicable for the final rule.

### **2.3 RULE APPLICABILITY**

#### **2.3.1 Definition of "Site Remediation"**

Comment: Commenters expressed the concern that, as proposed, the rule applicability provisions are unclear and circular. Several commenters [Docket entries IV-D-15, IV-D-23, IV-D-24, IV-D-26, IV-D-27, IV-D-30] requested that we clearly define the term "remediation" or the remediation activities subject to the rule. Commenters [Docket entries IV-D-15, IV-D-17, IV-D-22, IV-D-23, IV-D-30, IV-G-1] also

stated that routine waste management activities (e.g., tank clean-outs, removing spent catalyst from reactors, cleaning heat exchangers and other piping, etc.) are not site remediation activities and should be distinguished from site remediation activities subject to the rule.

Response: We have revised the regulatory language in the applicability section of the final rule to clarify our intent as to what is a "site remediation" for the purpose of implementing the Site Remediation NESHAP. The basis for all of our revisions to the rule is consistency with our intent that this rule address HAP emissions from activities to clean up environmental media contaminated with HAP as well as cleanup certain stored or disposed materials at a site that contain HAP and pose a reasonable potential threat to contaminating environmental media. It was never our intention that the rule be interpreted to apply to activities at a facility required for management of waste generated by routine equipment maintenance activities or other types of activities necessary to continue day-to-day operations at a facility.

In the final rule, we have added a new definition for the term "site remediation" and revised our proposed definition of "remediation material" to clarify the rule's applicability and to improve implementation of the final rule's requirements. "Site remediation" means one or more activities or processes used to remove, destroy, degrade, transform, immobilize, or otherwise manage "remediation material," as defined in the rule. Monitoring or measuring of contamination levels in media, whether by using wells, sampling, or other means, is not considered to be a site remediation.

We have revised the definition of "remediation material" to clarify the term's meaning consistent with our intent that the rule address HAP emissions from site remediations to clean up environmental media contaminated with HAP (e.g., soils, groundwaters, surface waters) as well as cleanup at a site certain stored or disposed materials that contain HAP and pose a reasonable potential threat to contaminating environmental media. The Site Remediation NESHAP is applicable to those site remediations that involve the cleanup of materials with the potential to emit the HAP we have listed in the rule. Also, the revised definition of "remediation material" used in the final rule explicitly identifies two groups of materials

considered to be remediation materials for the purpose of implementing the rule.

"Remediation material" as defined for the Site Remediation NESHAP must contain one or more of the HAP listed in Table 1 of the final rule (the basis for the list of HAP used for the Site Remediation NESHAP is discussed in section 2.2.1 of this document). If your site remediation does not involve the cleanup of remediation material containing any of the HAP listed in Table 1 of the final rule, then you are not subject to the Site Remediation NESHAP.

The first group of material included in the definition of "remediation material" addresses air emissions from site remediations to clean up environmental media contaminated with HAP. These materials are found in natural environmental media such as soil, groundwater, surface water, and sediments, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of media. Our use of the term "media" for this rule does not include debris as defined in 40 CFR 268.2.

The second group of materials included in the definition of "remediation material" addresses air emissions from site remediations to clean up materials containing HAP that are stored or disposed at a site and pose a reasonable potential threat to contaminating environmental media. These are defined to be materials containing HAP that are found in intact (or substantially intact) containers, tanks, storage piles, or other storage units. Examples of these materials include solvents, oils, paints, and other volatile or semi-volatile organic liquids found in buried drums, cans, or other containers; gasoline, fuel oil, or other fuels in leaking underground storage tanks; and solid materials containing volatile or semi-volatile organics in unused or abandoned piles. We do not consider remediation material to include waste or residue generated by routine equipment maintenance activities performed at a facility such as tank bottoms and sludges removed during tank cleanouts; sludges and sediments removed from active wastewater treatment tanks, surface impoundments, or lagoons; spent catalyst removed from process equipment; residues removed from air pollution control equipment; and debris removed during heat exchanger and pipeline cleanouts.

### **2.3.2 Definition of "Mixed Waste"**

Comment: One commenter [Docket entry IV-D-37] stated that the term "mixed waste" is not defined in the rule and should be clarified in the rule. The commenter suggested regulatory language changes to clarify the exemption for mixed waste.

Response: We reviewed the proposed rule regulatory language and decided that it is appropriate to make several regulatory language changes in the final rule to clarify the exemption for mixed wastes. First, a definition of the term "mixed waste" has been added to the final rule. Mixed waste is defined in Site Remediation NESHAP as "waste that contains both hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954" (RCRA 1004(41), 42 USC 6903(41)). Formatting the exemption in terms of "mixed waste" rather than a more general, broader term such as "radioactive waste or material" is considered to adequately characterize the population of radioactive wastes and remediation materials that are the target of this exemption. The phrase "managed in accordance with" used for the proposed rule has been changed to "subject to applicable" in the final rule, as suggested by the commenter. The reference in the rule to "applicable regulations" has been changed to "applicable requirements" to avoid any unintended confusion as to whether AEA activities conducted under DOE Directives are similarly exempted from the rule. The conjunctive "and" between the "Atomic Energy Act" and "Nuclear Waste Policy Act" has been changed to "or" to clarify that the exemption applies to waste subject to either statute rather than both statutes. Finally, an additional reference, the Waste Isolation Pilot Plant Land Withdrawal Act (Public Law 102-579), was added to the exemption language to ensure that the management of Mixed Transuranic Waste (MTRU) falls within the scope of the exclusion (in addition to "Atomic Energy Act" and "Nuclear Waste Policy Act").

### **2.3.3 Small HAP Quantity Cleanup Exemption**

Comment: Many commenters [Docket entries IV-D-17, IV-D-19, IV-D-22, IV-D-23, IV-D-25, IV-D-45] in general support the EPA's proposal to exempt site remediation activities performed

to clean up materials that contain little or no organic HAP. Several commenters stated that the proposed limit of 1 megagram per year (Mg/yr) for the exemption is too low and should be set at a higher level such as 10 Mg/yr. Other commenters request that short duration cleanups should be exempt from the calculation of total annual quantity of HAP contained in all extracted remediation material. The explained that such an exemption is necessary to ensure that de minimis remediation activities are not subjected to the Site Remediation NESHAP controls solely because of a one-time short duration cleanup that is unrelated to the minor remediation activity. One commenter [Docket entry IV-D-11] requested that the calculation of total annual quantity of HAP contained in all extracted remediation material should include a vapor pressure cut-off to exclude materials that have little or no potential to emit HAP. Another commenter [Docket entry IV-D-21] requested that the 1 Mg/yr facility-wide exemption should be determined based on the amount of HAP entering remediation equipment (or the potential to emit of the equipment).

Response: As discussed in our response in Section 2.2.1 of this document, the pollutants selected for regulation by the Site Remediation NESHAP are organic HAP. We recognize that the purpose for many site remediations is to clean up media contaminated with metals or other non-organic substances. In these situations, we further recognize that while the site remediation activities used are selected to clean up the particular metal or non-organic contaminants, it is possible that trace amounts of organic HAP substances also may be present in the remediation material. It is not our intention to extend the applicability of the rule to these types of site remediations which are designed and conducted to clean up contaminants other than organic HAP. We therefore have included in the rule an exemption for those site remediation activities performed to clean up remediation materials that contain little or no organic HAP.

We selected the threshold level of 1 megagram per year of organic HAP to be consistent with the value we established for a similar exemption under 40 CFR 63 subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. Commenters provided no new information that justifies the need to set the limit at a

higher level for those types of site remediations that the exemption is intended to apply.

As discussed in the next section of this BID, the final Site Remediation NESHAP also provides at those facilities subject to the rule an exemption for short-duration cleanups that can be completed within 30 days from the need to use air pollution controls under the rule. There is no organic HAP quantity limit for this exemption and is available for any site remediation at a facility subject to the rule that meets the qualifying conditions regardless of the organic HAP quantity in the remediation material. In contrast, the small HAP quantity cleanup cutoff is used to determine an exemption of the entire facility from being subject to the Site Remediation NESHAP. The short duration cleanup exemption and the small HAP quantity cleanup exemption are separate and distinct exemptions that are intended to address different site remediation situations with likely low organic HAP emission potential. There is no valid reason for excluding the organic HAP quantity in remediation materials from an exempted short duration cleanup from the calculation of the total annual quantity of HAP used to determine the overall applicability of the rule to a facility.

Finally, the calculation of total organic HAP for the purpose of qualifying for the small HAP quantity cleanup exemption is based on the total quantity of those organic HAP constituents listed in Table 1 of the rule that are contained in your remediation material. Table 1 listed 97 specific organic HAP. As discussed in Section 2.2.1 of this document, our selection of which organic HAP that are listed in this table included evaluating the organic volatility and other characteristics of a HAP that affect its potential to be emitted to atmosphere. We excluded from the list those organic HAP with little or no potential to be emitted. Thus, there is no need to also establish for the exemption a vapor pressure cut-off to exclude materials that have little or no potential to emit HAP.

#### **2.3.4 Short Duration Cleanup Exemption**

Comment: Many commenters [Docket entries IV-D-08, IV-D-IV-D-12, IV-D-13, IV-D-17, IV-D-18, IV-D-19, IV-D-22, IV-D-23,

IV-D-25, IV-D-26, IV-D-30, IV-D-32, IV-D-40] in general supported including an exemption in the rule for short duration cleanups but requested a number of revisions to the proposed exemption. Commenters argue that the proposed 7-day initiation period for the time the contamination occurs and 30-day cleanup period are too short because they do not account for circumstances beyond the control of an owner or operator which may delay discovery of the contamination or completing the cleanup within 30 days. In some cases, a leak or spill may not be discovered immediately, even when routine inspections of pipelines, tanks, etc, are performed. Furthermore, although remediation activities to clean up a spill often can be completed within 30 days, delaying factors such as delayed analytical results, securing of the site for safety-related reasons, extreme weather, remote site locations, or the need to obtain permits may push short duration cleanups beyond the 30-day period. Commenter recommendations for revisions included: 1) specific longer time limits ranging from 45 to 180 days; 2) allowing for two 30-day extensions upon notification (similar to the 30-day extensions allowed for tanks under 40 CFR 60 subpart Kb); 3) non-binding guidance periods to allow unforeseen circumstances which create unavoidable delays in completing a cleanup within a specified period (e.g., within 30 days unless good cause exists that delays the cleanup process); 4) no specified cleanup period and instead general regulatory language such as "completed within a reasonable time"; 5) allowable cleanup interval should be based on the occurrence of the spill or the discovery of the spill; 6) provide for a period of "emergency response" to allow remediation to begin as soon as possible (in keeping with the short-duration spill exemption, this period could be set at 30 days); and 7) cleanup process should be not be required to be "continuous" (i.e., performed every workday).

Response: We reviewed our proposed regulatory language for the exemption and concluded that the proposal does not accurately reflect our intent. Therefore, we have revised the approach we use to implement the exemption. We believe this revised approach preserves our original intent as to which site remediations warrant exemption as well as addresses the concerns raised by commenters regarding the situations when a short-term site remediation takes longer to complete than

initially planned and extends beyond the allowable time interval because of circumstances beyond their control.

The purpose of the Site Remediation NESHAP is to control organic HAP emissions released to the atmosphere during site remediations. Organic HAP emissions from in-situ treatment processes primarily occur when an air or gas stream from the remediation process is exhausted to the atmosphere. Organic HAP emissions can be released from extraction or excavation of contaminated material and the subsequent handling, treatment, and disposal of these materials. The emissions do not occur prior to the time that these remediation activities actually start.

We recognize that activities necessary to plan, arrange, and schedule the site remediation may take more than 30 days. Also, we recognize that there may be delays in starting the site remediation due to circumstances beyond the control of a site owner or operator such as waiting for necessary permit approvals from a State or local agency, or scheduling of personnel or equipment contracted to complete the cleanup work.

Furthermore, a site remediation does not occur until a source of actual or potential hazardous substance contamination is discovered. In many cases, when the contamination is discovered may not be the same time that the contamination occurs. For example, the new owner or operator of a site may discover a contaminated source requiring remediation that occurred years earlier due to improper practices of the previous site owner. We recognize that in many situations it is difficult, if not impossible, for facility owners and operators, as well as enforcement personnel, to verify whether a given site remediation is initiated within 7 days of the contamination occurring. Therefore, we decided to eliminate any conditional requirements for the exemption related to when the contamination occurred. Instead, it is more appropriate and practical to base the time limit for the short-term exemption on the period that the on-site work is performed for those activities with the actual potential to emit HAP.

For the final Site Remediation NESHAP we adopted the approach of exempting short term site remediations that can be completed within a given number of consecutive calendar days as determined from the day that any action is first initiated

that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. In adopting this approach, we exclude those activities that need to be completed to perform a site remediation but are not responsible for the generation of HAP emissions from site remediations, namely: activities required to characterize the type and extent of the contamination by collecting and analyzing samples, to obtain any permits required by State or local authorities to conduct the site remediation, to schedule workers and necessary equipment, and to arrange for any contractor assistance in performing the site remediation.

Given our revised regulatory approach for the short-term site remediation exemption, we re-evaluated the maximum time interval appropriate for the exemption. We proposed a maximum time interval of 30 days for the exemption. This proposed time interval included time to complete those sampling, planning, and scheduling activities that needed to perform a site remediation but are not part of the physical activities which cause HAP to be emitted at the cleanup site. Under the final rule, the exemption is based on the time interval required to complete only those remediation activities that actually emit or have a potential to emit HAP. We believe that the physical part of the site remediations we intend for this exemption to apply can reasonably be completed within a period much shorter than 30 days (e.g., 1 week, 14 days). However, there are situations where a remediation at a particular site which normally should be completed within these shorter periods cannot be due to factors beyond the control of the owner or operator that curtail or delay the remediation activities (such as severe weather or machinery breakdowns). Therefore, we decided that selecting a maximum time interval of 30 days for the exemption will allow a sufficient period to complete the types of cleanups we intend for this exemption to apply to and to provide a reasonable amount of leeway to account for any unforeseen circumstances that may develop at a site.

Finally, it is our intention that the short-term exemption only be applicable to those site remediations for which the cleanup of the entire contaminated area at the site can be completed within 30 consecutive days. The exemption is not intended to be used for longer term cleanups of contaminated areas whereby the remediation activities at the

site are started, stopped, and then re-started in a series of intervals with durations less than 30-days per interval for which the total time of all of the intervals required to complete the site remediation exceeds a total of 30 days.

### **2.3.5 Addition of Other Exemptions**

Comment: Several commenters request additional exemptions be added to the final rule. One commenter [Docket entry IV-D-12] requested addition of an exemption to the final rule for foundation and other structural construction activities because they are similar to a short duration event that involves a spill, and the construction process can generate over a short period of time, soils which must be properly managed. Another commenter [Docket entry IV-D-15] requested addition of an exemption to the final rule for site remediation activities that undergo comprehensive risk-based assessments and are shown not pose a significant risk to human health or the environment. A third commenter [Docket entry IV-D-40] requested addition of an exemption to the final rule for existing low-volume but high-concentration (>500 ppmv VOHAP) remediation material sources treated at on-site wastewater treatment facilities.

Response: We believe the that exemptions we included in the final rule are adequate, and there is no need to include the additional exemptions requested by the commenters.

## **2.4 RULE EMISSION LIMITATION AND WORK PRACTICE STANDARDS**

### **2.4.1 Combined Remediation Material Streams**

Comment: Commenter [Docket entry IV-D-17] stated that they support the EPA's decision to allow mixing of wastewater or extracted groundwater with other process wastewater at the facility prior to biological treatment, this situation is not specifically addressed in the proposed regulatory language. A second commenter [Docket entry IV-D-22] notes that the regulatory language in the proposed rule always refers to the concentration of the "remediation material" itself, not to the combined stream managed in the potential remediation material

management unit. The commenter believes that to allow for consistency between EPA's intent as expressed in the preamble and the actual rule, the rule needs revision to include the measurement of combined streams to demonstrate the less than 500 ppmw criterion is met.

Response: Compliance procedures are included in the final Site Remediation NESHAP for situations when a remediation material stream is mixed or combined with another material stream prior to being placed in an affected unit.

#### **2.4.2 Tank De Minimis Capacity and Vapor Pressure Cutoffs**

Comment: Commenter [Docket entry IV-D-18] notes that the proposed rule would require that controls be installed on any tank. The commenter suggests that instead the rule use a de minimis tank size and vapor pressure should be established for tanks where no controls are required, similar to the NSPS for organic liquid storage tanks.

Response: The NSPS for organic liquid storage tanks (40 CFR Part 60 subpart Kb) does contain cutoffs for minimum size and vapor pressure, however the control requirements under the NSPS and the Site Remediation NESHAP are different.

The NSPS does not contain provisions specifying when a fixed roof is required. It was not considered necessary to specify use of a fixed roof in the NSPS, since for the industry affected by that regulation, a fixed roof is used as a matter of standard practice since it is desired to preserve the liquid being stored. That is not the case when storing remediation materials in tanks so we specify both Level 1 (a fixed roof) and Level 2 (floating roof similar to the NSPS) controls.

The Site Remediation NESHAP does not require that air pollution controls be used for all tanks since those units managing remediation material with an average total volatile organic HAP concentration less than 500 ppmw (based on the content of the organic HAP listed in Table 1 of the rule) do not have to be controlled.

#### **2.4.3 Container De Minimis Capacity Cutoff**

Comment: Commenter [Docket entry IV-D-18] stated that the proposed rule includes a de minimis container size of 0.1 m<sup>3</sup> (26 gallons) below which containers are not required to use air pollution controls. The commenter believes that it would be more realistic to change this to 0.2 m<sup>3</sup> (52 gallons) since the typical container that would be used would be 55 gallons in size which would still be regulated while smaller containers which would be expected to have reduced emissions would not.

Response: The de minimis container size of 0.1 m<sup>3</sup> (26 gallons) used in the Site Remediation NESHAP below which containers are not required to use air pollution controls is consistent with the cutoff size we have historically used for the container air standards we have promulgated for waste management operations (e.g., the OSWRO NESHAP under 40 CFR 63 subpart DD and the RCRA air standards under subpart CC of 40 CFR parts 264 and 265). We originally selected the value of 0.1 m<sup>3</sup> when we were developing the RCRA air standards based on a review of hazardous waste handling practices and applicable existing Federal rules regulating these practices for containers with capacities less than 55 gallons. We believe that our original basis for selecting 0.1 m<sup>3</sup> for the container cutoff value remains applicable and appropriate for the container air standards under the Site Remediation NESHAP.

#### **2.4.4 Process Vent Control Requirements**

Comment: Commenter [Docket entry IV-D-44] contends that the two compliance options the EPA proposed for reducing process vent emissions is less than control levels typically being achieved.

Response: The CAA requires that each NESHAP reflect the level of control that is determined to be MACT as defined under CAA section 112(d)(3). To select MACT for the affected sources subject to the Site Remediation NESHAP, we used the control levels achieved by air pollution controls used by existing sources to meet national air standards for sources similar to those sources that potentially may be associated with site remediations. In the case of process vent emissions, we determined MACT to be the emission limitations and work practices being implemented to control organic

emissions from process vents on treatment processes used at existing sources subject to the air standards for RCRA hazardous waste TSD under subpart AA in 40 CFR parts 264 and 265. Compliance of facilities with the RCRA subpart AA process vent standards demonstrates that the control levels are achievable. The commenter provided no new test data or other relevant information that showed that higher control levels than those required to meet the RCRA subpart AA process vent standards are being achieved for exhaust streams from process vents on treatment processes used for site remediations. The air standards for process vents established by the final Site Remediation NESHAP fully meet the CAA requirements for MACT.

#### **2.4.5 Equipment Leak Requirements**

Comment: Commenter [Docket entry IV-D-39] suggests that there should also be a de minimis level of the total number of potential components (pumps, valves, etc.) at a site before an owner or operator is required to conduct a leak detection program for equipment. For example, in pump-and-treat operations the number of potential leaking components is generally small, and potential emissions from those emission points would not justify a leak detection and repair (LDAR) program. The commenter suggests that an affected source should be exempt from the LDAR provision if the number of potential components is less than 100.

Response: The final Site Remediation NESHAP requires that you control fugitive organic HAP emissions from equipment leaks from pumps, valves, and other ancillary equipment components that contain or contact remediation material having a total concentration of the organic HAP listed in Table 1 of the rule equal to or greater than 10 percent by weight, and are intended to operate for 300 hours or more during a calendar year. Control of these emissions is achieved by implementing a leak detection and repair program or installing "leakless" equipment.

Use of LDAR programs at facilities has shown it to be an effective work practice for controlling fugitive organic emissions. In situations where a LDAR program is required, we believe that implementation of the program provides an

important control measure regardless of the number of components required to be tested. Also, an owner or operator may elect to comply with the equipment leak requirements under the Site Remediation NESHAP by replacing all of the affected equipment components with leakless components (as specified in the rule), and thus avoid the need to implement a LDAR program. Therefore, exemption of affected sources from the LDAR provision when the number of potential components is less than 100 or another specified value is not necessary.

#### **2.4.6 Requirements for Transfer of Remediation Material to Another Party**

Comment: Several commenters [Docket entries IV-D-8, IV-D-18, IV-D-19, IV-D-22] opposed the proposed requirements for transfer of remediation material to another party because they argue that the requirements are unnecessarily burdensome on both the shipping and receiving parties and adds paperwork with little or no environmental or health benefit. One commenter [Docket entry IV-D-12] expressed concern that the proposed remediation material transfer requirements pose an undue and unforeseen significant burden on transporters of remediation wastes. Several commenters [Docket entries IV-D-8, IV-D-16] stated the proposed rule is unclear as to whether the remediation material transfer requirements are applicable to those facilities and activities that are otherwise exempt from the proposed rule. Several commenters [Docket entries IV-D-16, IV-D-17, IV-D-22] stated that remediation material sent off site to a RCRA TSDF should not require additional notification. These facilities are already regulated under the RCRA air rules in 40 CFR parts 264 and 265 subparts AA, BB, and CC. Finally, one commenter [Docket entry IV-D-42] requested that we clarify the applicability to, and requirements for, the receiving facilities.

Response: The objective of a site remediation is to mitigate a detected risk to public health or the environment by successfully completing the cleanup of an area contaminated by a hazardous substance. At many remediation sites, the contaminated material is excavated or extracted and then shipped to another site for treatment or disposal. Simply moving contaminated material containing organic HAP from the

cleanup site to another site across town or in another community does not address the potential for these HAP to be emitted to the air and, subsequently, pose a risk to public health or the environment. It merely transfers the risk to another locale. Nor does such a practice reflect the maximum emission reduction achievable, as required by CAA sections 112 (d)(2) and (d)(3). Thus, there is a need to ensure that those remediation materials with the potential to emit organic HAP are managed and treated in units using appropriate air pollution controls regardless of where those units are located. To address this need, we are including in the Site Remediation NESHAP the requirement that remediation material transferred to another party or shipped to another facility must be managed according to the air pollution control requirements specified in the rule.

We believe that the transfer provision under the Site Remediation NESHAP does not establish requirements that are burdensome on either the remediation material shipping or receiving parties. We expect that, for many of those situations where a remediation material is subject to the off-site transfer requirements under this rule, the material will be sent to a facility that is already complying with the OSWRO NESHAP or a hazardous waste TSDF already complying with the RCRA air standards under subparts AA, BB, and CC of 40 CFR part 264 or 265. The air pollution control requirements under the OSWRO NESHAP and RCRA TSDF air rules are effectively the same as those required under the Site Remediation NESHAP. Consequently, it is likely that many, if not all, of the sites receiving the types of remediation materials subject to the off-site transfer requirements will already be using the necessary air pollution controls to comply with these other CAA and RCRA air rules. Thus, the off-site transfer requirements in the Site Remediation NESHAP should not impose a need for these sites to purchase and install new air pollution controls. Furthermore, since both the OSWRO NESHAP and RCRA air standards contain provisions exempting material generated from remedial activities from air emission controls, the transfer provisions under the Site Remediation NESHAP is needed so that HAP emissions are controlled from remediation material received by OSWRO and RCRA air standard facilities.

While OSWRO facilities and hazardous waste TSDF already should be properly equipped to receive and manage remediation

materials from cleanup sites subject to the Site Remediation NESHAP, there are no existing rules requiring all owners and operators performing clean ups of contaminated materials containing organic HAP to ship the remediation materials to such facilities. It is possible that there are special circumstances where remediation material is transferred to a facility other than an OSWRO facility or a hazardous waste TSDF. We also must address the potential for circumvention of the rule's purpose at a site where the remediation material is simply excavated or extracted and then intentionally transferred outside the site's legal boundaries to avoid having to use air pollution controls. Thus, the level of control reflecting MACT provided by the OSWRO NESHAP (and the corresponding RCRA subtitle C rules for air emissions) is not necessarily being provided for all remediation waste transfer operations, so a MACT standard would not merely duplicate existing regulatory requirements. In those cases where an off-site facility is receiving remediation material subject to regulation by the Site Remediation NESHAP, but units at the facility currently are not using the air pollution controls required by the Site Remediation NESHAP, the facility owner or operator has the option of declining to accept the remediation material from the cleanup site or installing the required air pollution controls on just those units that manage the remediation material.

While we believe that it is essential that the off-site transfer provision be included in the Site Remediation NESHAP to ensure remediation materials from cleanup sites subject to the rule are managed and treated in units using appropriate air pollution controls regardless of the units' location, we have reviewed the proposed recordkeeping, certification, and notification requirements associated with the off-site transfer provision. We decided that we can simplify the administrative requirements for the facility owners and operators and still effectively implement and enforce the off-site transfer provision. Therefore, we revised the final rule to simplify the recordkeeping and certification requirements for both owners and operators of facilities shipping as well as receiving the remediation materials.

Finally, the off-site transfer provision is not intended to trigger a Title V permitting requirement for the owner or operator of a facility that currently is an area source. To

address this situation, we have added in the final rule an explicit provision stating that the acceptance by a facility owner or operator of remediation material from remediation site subject to the Site Remediation NESHAP does not, by itself, require the facility owner or operator to obtain a title V permit.

## **2.5 RULE TESTING, INSPECTION, AND MONITORING REQUIREMENTS**

### **2.5.1 Remediation Material VOHAP Determination Requirements**

Comment: Commenter [Docket entry IV-D-30] stated that the testing requirements for obtaining the affected source exemptions (i.e., sampling and documentation) are unnecessarily burdensome.

Response: The CAA requires that each NESHAP contain provisions necessary to demonstrate continuous compliance with each relevant standard. The testing requirements included in the Site Remediation NESHAP are necessary to verify that a given site remediation qualifies for an exemption under the rule. We believe these requirements are reasonable and are not burdensome to the facility owners and operators. For many cases we expect that a facility owner or operator will already have the necessary information needed to determine the total organic HAP content or VOHAP concentration of the remediation material at the site (as appropriate for the particular exemption the owner or operator elects to meet) from the test data and other information collected from earlier sampling and testing used to identify the need for the site remediation and plan the site remediation activities.

### **2.5.2 Continuous Parameter Monitoring System QA/QC Requirements**

Comment: In general, several commenters [Docket entries IV-D-12, IV-D-17, IV-D-23, IV-D-45] object to including the EPA Emissions Monitoring and Analysis Division's (EMAD) proposed quality assurance and quality control (QA/QC) requirements for continuous parameter monitoring systems in the Site Remediation NESHAP. With regard to specific requirements, one

commenter [Docket entry IV-D-23] stated that the proposed monthly inspection requirements for temperature, flow, pressure, and pH measurement devices will create control and monitor failures and outages, make achieving data availability requirements more difficult, result in HAP emissions, and increase the potential for injuries. The commenter also stated that the proposed requirement to shield the temperature sensor system from chemical contaminants is unnecessary and is so vague that it is impossible to demonstrate compliance.

Response: We have deleted the proposed detailed quality assurance and quality control (QA/QC) requirements for continuous parameter monitoring systems (CPMS) from the final Site Remediation NESHAP. In place of these requirements we have added to the final rule general requirements for owners or operators using continuous monitoring systems to prepare a site-specific monitoring plan for their CPMS that addresses installation, performance, operation and maintenance, quality assurance, and recordkeeping and reporting procedures. The rule specifies the topics to be addressed in the plan, but does not specify detailed operation, maintenance, and inspection requirements for temperature, flow, pressure, pH, and other CPMS measurement devices. We are planning to develop and promulgate a single set of CPMS operation, maintenance, and inspection requirements applicable to all NESHAP under 40 CFR part 63.

## **2.6 RULE IMPLEMENTATION REQUIREMENTS**

### **2.6.1 New Source Compliance Date**

Comment: Several commenters [Docket entries IV-D-12, IV-D-17, IV-G-1] expressed concern that affected site remediations that are begun after the rule proposal date (July 30, 2002) are considered to be new sources and would be required to be in compliance with the rule by the final rule effective date. The commenters believe that this compliance date requirement could inadvertently delay some cleanups. The commenters request that the EPA provide a more reasonable compliance period for new affected sources.

Response: The compliance date for new sources specified in the final Site Remediation NESHAP is reasonable. Section 112(i) of the CAA requires immediate compliance of new sources after the effective date for an emissions standards promulgated under CAA Section 112(d). The General Provisions to 40 CFR part 63 defines in §63.2 a "new source" to be an affected source for which construction or reconstruction commences after the EPA Administrator first proposes the NESHAP. In the applying this definition to the Site Remediation NESHAP, a new source is a site remediation that is started on or after July 30, 2002. Under the final rule, existing site remediations subject to the rule which were begun before July 30, 2002 must be in compliance with the rule no later than 3 years after date of publication of the final rule in the Federal Register. Owners and operators of facilities where a site remediation has been started on or after July 30, 2002 are expected to be aware of the proposed rule and its possible impact on their site remediations with respect to requiring the use of appropriate air pollution controls which may or may not be already in place. By the time the final Site Remediation NESHAP is promulgated, owners and operators of any currently ongoing site remediations meeting the General Provisions definition of new source will have had a least 1 year to plan for implementing the required air pollution controls to meet the applicable standards under the Site Remediation NESHAP.

### **2.6.2 Recordkeeping Requirements**

Comment: Commenter [Docket entry IV-D-19] requests that EPA revise the language of proposed §63.7881(f) to state that the rule recordkeeping requirements of proposed §63.7933 not apply to remediation activities completed prior to the compliance date of the Site Remediation NESHAP. The commenter would like to insure that the revised language reflect recordkeeping requirements will apply prospectively only.

Response: The provision in the proposed rule §63.7881(f), now under §63.7881(d) of the final rule, is intended for activities that are subject to the Site Remediation NESHAP. A remediation completed prior to the compliance date would never be subject to the rule so the recordkeeping requirements cited

would not apply. The provision in the final rule has been revised to clarify that only a record demonstrating compliance with the rule during the remediation activity period is required.

### **2.6.3 Startup, Shutdown, and Malfunction Plan**

Comment: Commenter [Docket entry IV-D-23] stated that the rule requires the facility to develop and implement a startup, shutdown, and malfunction plan. In reality, this requirement only has meaningful relevance where a vent stream is routed to a control device. Otherwise, this requirement should not apply. As an example, this requirement would be especially burdensome and irrelevant for excavated material being stored in containers/roll-off boxes.

Response: The General Provisions in subpart A to 40 CFR part 63 establish requirements that are generally applicable to each of the individual NESHAP promulgated under part 63. Section 63.6(e)(3) in the General Provisions establishes the requirements for the development and implementation of a written startup, shutdown, and malfunction (SSM) plan for the affected sources subject to an individual NESHAP.

A comprehensive table is included in the Site Remediation NESHAP that lists which of the requirements in the General Provisions apply to owners and operators of affected sources subject to the Site Remediation NESHAP. We have revised an entry in this table (Table 3 in the final rule) related to the General Provisions requirements in §63.6(e)(3) for developing and implementing a SSM plan. The SSM plan requirements in §63.6(e)(3) do not apply under the Site Remediation NESHAP to affected containers required under §63.7900 to use either Level 1 or Level 2 container controls. These control levels require the use of covers or other suppression-type controls on drums, dumpsters, roll-off boxes, and other affected containers. The SSM plan requirements in §63.6(e)(3) do apply under the Site Remediation NESHAP to affected containers required under §63.7900 to use Level 3 container controls because this control level requires the venting of affected containers to a control device (either directly or by use of an enclosure).

#### **2.6.4 Reporting Requirements**

Comment: Commenter [Docket entry IV-D-23] stated that the proposed requirement that within 24 hours of placing material in a container/roll-off, you must submit a signed statement that the cover meets the requirements of the rule should be dropped, as it is impractical to submit such a notice every time you place remediation material in a container/roll-off.

Response: We agree with the commenter. The owner or operator is not required to submit a signed statement that the cover meets the requirements of the rule whenever remediation material is placed in an affected container under the final Site Remediation NESHAP.

#### **2.6.5 Initial Notification Requirements**

Comment: Commenter [Docket entry IV-D-25] stated that the proposed rule's initial notification requirements are unnecessary. In particular, the commenter recommends that the final rule exempt existing source facilities from filing redundant notices.

Response: The General Provisions in subpart A to 40 CFR part 63 establish requirements applicable to each of the individual NESHAP promulgated under part 63. Under §63.9(b) the owner or operator of a facility subject to an individual NESHAP must submit an initial, written notification to the EPA within the applicable time period identifying the facility and the specific NESHAP subpart to which the facility is subject. In this case, the owner or operator of a facility with a site remediation subject to the NESHAP is required to prepare and submit an initial notification. The Subpart A initial notification requirements are neither burdensome nor unnecessary. The initial notification is a relatively simple document requiring the facility owner or operator to submit basic, readily available information about the source (e.g., facility name, address, brief description of source). The document serves important administrative purposes for the agency responsible for implementing and enforcing the Site Remediation NESHAP under the NESHAP program. It is not appropriate to provide an exemption as requested by the commenter in the final rule.

#### **2.6.6 Definition of "Deviation"**

Comment: Commenter [Docket entry IV-D-25] stated that EPA's definition in the rule for the term "deviation" is inappropriate because it specifically includes periods of startup, shutdown, and malfunction (SSM) even though SSM periods are already exempted from compliance under the rule. This is redundant and provides no useful information regarding compliance. Facilities will already be reporting "true" deviations under their monitoring reporting requirements and SSM activities through their SSMP reports. There is no need to confuse the already overly complex recordkeeping and recording requirements with unwarranted and redundant data. The EPA should therefore exclude SSM periods from the definition of "deviation". Therefore, the commenter recommends that the EPA revise the rule to reflect that operations in accordance with SSM plans are not deviations and need not to be reported as such.

Response: For all NESHAP, we use a consistent approach for assuring continuous compliance with the relevant standards applicable to a source. Each NESHAP requires that facility owners and operators monitor, record, and report any time a requirement or obligation established by the NESHAP is not met. This includes during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by a NESHAP. This requirement applies to all affected sources.

The term "deviation" is explicitly defined to mean any instance in which an affected source subject to this subpart or an owner or operator of such a source fails to meet any of the following: 1) any requirement or obligation established by this subpart, including but not limited to, any emission limitation (including any operating limit) or work practice standard; 2) any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or 3) any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of not such failure is permitted by the rule. A given deviation is not necessarily a violation of the NESHAP. The EPA or the agency with delegated authority to

implement and enforce the rule makes a determination if a deviation is a violation of the NESHAP.

Periods of startup, shutdown, malfunction for a site remediation activity are not exempted from compliance with the NESHAP. We recognize that air emissions from any process can vary during process startups and shutdowns and when there is an equipment failure, process upset, or other type of malfunction. We also believe that, to a reasonable extent, many of these events can be planned for and corrective actions implemented that will reduce air emissions. Therefore, as a general provision for all NESHAP source categories, we require under §63.6(e) that owners and operators develop and implement a written startup, shutdown, and malfunction plan that describes the procedures for operating and maintaining the source during SSM events and the corrective actions that will be taken during a process or air pollution control equipment malfunction. Assuming an acceptable SSM plan is in place for a facility, compliance with the NESHAP during startup, shutdown, or malfunction periods is determined by whether the owner or operator implemented the appropriate actions necessary meet the applicable requirements specified in §63.6(e)(3). We consider SSM events to be deviations to assure that owners and operators continuously comply with the relevant standards in §63.6(e)(3).

To minimize reporting requirements associated with SSM events to the extent possible, we allow owners and operators to include information in their semiannual compliance reports on those SSM events where actions taken were consistent with their SSM plan. A separate report for a particular SSM event is required only if actions could not be taken, or were not taken, consistent with the SSM plan.

## **2.7 RULE RELATIONSHIP TO OTHER RULES AND PROGRAMS**

### **2.7.1 Remediation Activity Sources Regulated By Other NESHAP**

Comment: Several commenters [Docket entries IV-D-11, IV-D-16, IV-D-39] argue that remediation activities subject to another NESHAP (either under 40 CFR part 61 or 63) should not be subject to the Site Remediation NESHAP regardless if the

other NESHAP requires the source to use air emission controls. Conversely, one commenter [Docket entry IV-D-23] argues that for remediation activities subject to and controlled under the Site Remediation NESHAP and another Part 61 or 63 rule, the owners and operators should be allowed to comply only with the Site Remediation NESHAP. Another commenter [Docket entry IV-D-26] stated that sources that are otherwise exempt from NESHAP should not be subject to this rule.

Response: For a site remediation at a given facility it is possible that remediation materials may be stored or treated in existing on-site units already subject to another NESHAP. One example is a pump-and treat site remediation to clean up contaminated groundwater where the extracted water is treated in a steam stripper. In the development of the Site Remediation NESHAP, we recognized that these situations could occur and added provisions to the rule to eliminate duplication or overlap with standards under other NESHAP that are applicable to the same affected source.

At a facility where a process vent associated with a remediation treatment process or a remediation material management unit is an affected source and this source is required to use air emission controls under both the Site Remediation NESHAP and another NESHAP, the Site Remediation NESHAP allows the facility owner or operator the option of demonstrating compliance using the air pollution controls required by the other applicable subpart under 40 CFR part 61 or 40 CFR part 63. This means you are complying with all applicable emissions limitations and work practice standards under the other subpart (e.g., you install and operate the required air pollution control devices or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart).

The intent of this compliance option is to prevent a situation where an owner or operator already has installed air pollution controls on the affected source, to comply with another NESHAP, from needing to replace these controls with different air pollution controls to comply with the Site Remediation NESHAP. It is not our intent that owners and operators use this compliance option to avoid having to use any air pollution controls on the affected source. Therefore, this exemption in the Site Remediation NESHAP can only be used if the other subpart actually specifies a standard requiring

control of HAP emissions from your affected source (process vents in the example). It does not apply to any exemption of the affected source from using air pollution controls allowed by the other applicable subpart.

Finally, it is not proper to allow sources to not be subject to the Site Remediation NESHAP for the sole reason that these sources have been exempted under other NESHAP. In cases where sources associated with site remediation activities are specifically exempted under another NESHAP (e.g., the OSWRO NESHAP), the rationale for exempting these sources is that site remediation is listed as a separate category of major sources on our source category list (57 FR 31576) and, consequently, HAP emissions from the site remediation sources are regulated under a separate NESHAP (i.e., the Site Remediation NESHAP).

### **2.7.2 Once-In, Always-In NESHAP Policy**

Comment: Six commenters [Docket entry IV-D-11, IV-D-15, IV-D-17, IV-D-23, IV-D-25, IV-D-30] support the EPA's proposal to suspend its "once in, always in" policy as applied to facilities subject to the Site Remediation NESHAP. Several of these commenters requested clarification of the suspension of the policy for an area source that exceeds the major source threshold by virtue of site remediation activities and thus could become subject to other NESHAP standards. One commenter also states that inclusion of temporary activities, such as short-term remediation, in the determination of major source serves as a serious disincentive for remediation activity. Another commenter [Docket entry IV-D-18] stated that owners and operators of area source facilities that would be subject to an existing NESHAP if it were to become a major source would be hesitant about conducting a site remediation project at the facilities because they would incur significant costs to meet both the Site Remediation NESHAP requirements and also any other NESHAP that they may be subject to upon becoming a major source. The commenters request that the EPA adopt a policy of not only suspending once in, always in, but also relieving facilities of the requirement to comply with other applicable NESHAP standards if they otherwise would be area sources, but for the site remediation activity.

Response: We explained at proposal why site remediation is a unique source category (see 67 FR 49400-49401). Because of its uniqueness, we specifically evaluated how the Site Remediation NESHAP could be implemented within the framework of our existing policies for implementing the NESHAP promulgated under CAA section 112. Our once in, always in policy is that once a facility or source is subject to a NESHAP, it remains subject to that standard as long as the affected source definition or criteria are met. In the preamble to the proposed rule, we discussed our decision that the once in, always in policy should not apply to the site remediation source category for those facilities that are area sources prior to and after the cleanup activity. In other words, once the site remediation activity is complete and there have been no changes to the non-remediation sources at the facility, the facility returns to area source status.

The definition of major source under CAA Section 112 requires that all actual and potential HAP emissions be considered, so HAP emissions must be included in determining major source status.

For facilities that become major sources due to remediation activity, they have 3 years to complete the site remediation activity, and return to area source status, before controls would be required under another NESHAP for non-remediation sources at the facility. We believe the majority of remediation activities that are controlled for HAP emissions will account for a small portion of a facility's total HAP level, and therefore the likelihood of a remediation activity, assuming its emissions are well-controlled, changing a facility's status from an area source to a major source is unlikely.

### **2.7.3 Clean Air Act Title V Permit Modifications**

Comment: One commenter [Docket entry IV-D-15] stated it is not obvious under what circumstances a Title V operating permit must be modified to reflect site remediation activities. The commenter requests that the EPA clarify and streamline the Title V requirements applicable to the site remediation source category. A second commenter [Docket entry IV-D-30] stated that facilities subject to the Site

Remediation NESHAP would be required to modify their Title V operating permits and wait for issuance of the modified permit before commencing site remediation activities. This delay in starting the cleanup would create an increased risk to human health and the environment. Furthermore, the commenter stated it is not practical to require a facility to secure a Title V permit if it is otherwise an area source, but for the site remediation activity. This commenter also recommended that EPA develop guidance to streamline Title V permit modification requirements and that facilities that are not otherwise major should not be required to obtain a Title V permit.

Response: Whether or not a Title V operating permit revision procedure is triggered for a given facility is a case-by-case determination based on the specific site circumstances. Such determinations take into account the specific terms and conditions of the facility's existing Title V operating permit, the applicable State's permitting regulations, and the specific actions being taken by the source. Thus, a detailed response for specific site remediation conditions at a given facility is beyond the scope of this BID. In general, Title V operating permits must be revised when the source wishes to undertake a change that conflicts with an existing permit condition. For guidance on whether any Title V permit revision procedures would be triggered for a specific site remediation activity you are planning to conduct at your facility, you should consult with the permitting authority that issued your Title V operating permit.

As to commenters' request to "streamline" the Title V permit modification requirements, we currently are considering how best to revise the Title V operating permit modification procedures for all types of sources. We have solicited public comment on this issue on three separate occasions (two proposals (59 FR 44460 and 60 FR 45530) and a notice of availability for a draft final rule (62 FR 30289)).

#### **2.7.4 Facility Major Source Status**

Comment: Commenter [Docket entry IV-D-23] stated while the initiation of a site remediation operation may potentially affect a change in source status (i.e., from area to major),

this does not result in the facility becoming a "new" affected source. The commenter requests that the EPA should include a provision in the final rule that specifically provides for a 3-year compliance period with the underlying NESHAP standards for those area sources that become major sources as a result of implementing this rule.

Response: The commenter is correct that a site remediation, regardless of when it is initiated, does not affect the existing/new source status of non-remediation sources at the facility potentially subject to non-remediation MACT standards. Since the time interval for compliance is specified by either the individual NESHAP or section 63.6(c)(5) of the General Provisions for area sources that become major sources, we do not think it is appropriate to override those requirements in the Site Remediation NESHAP.

Comment: Commenter [Docket entry IV-D-23] is concerned that, in situations where site remediation occurs at oil and gas production and exploration sites, the definition of major source in the Site Remediation NESHAP may be inconsistent with the definition of major source in the E&P NESHAP (40 CFR 63.761). The EPA should clarify that the major source definition in the Site Remediation NESHAP is not meant to supercede the major source definition for E&P facilities as established under the E&P NESHAP.

Response: It is not our intent that the major source determination process in the Site Remediation NESHAP supercede the major source definition in 40 CFR subpart HH (Oil and Natural Gas Production) or 40 CFR subpart HHH (Natural Gas Transmission and Storage).

#### **2.7.5 Rule Relationship to CAA Section 112 Other Than §112(d)**

Comment: One commenter [Docket entry IV-D-15] stated site remediations not subject to the Site Remediation NESHAP should also not be subject to other parts of Clean Air Act section 112 (e.g., §112(j)).

Response: Certain site remediations are not subject to the Site Remediation NESHAP based on decisions to meet the legislative directives of CAA section 112(d) for controlling HAP at major sources where remediation technologies and

practices are used at the site to clean up contaminated media and related materials. The basis for those decisions is only relevant for requirements under CAA section 112(d) and cannot be broadly applied throughout CAA section 112. Promulgation of the Site Remediation NESHAP negates any requirements under §112(j) for remediation activities.

#### **2.7.6 Rule Relationship to RCRA TSDF Air Rules**

Comment: Commenters [Docket entries IV-D-11, IV-D-12, IV-D-16] stated that EPA has not addressed the relationship of the Site Remediation NESHAP with the applicable RCRA air standards under 40 CFR 264 and 265 subparts AA, BB, and CC which control volatile organic emissions from hazardous waste related activities at RCRA treatment, storage, and disposal facilities (TSDF). The commenters believe that the Site Remediation NESHAP would overlap and may in some cases conflict with the already existing RCRA air rules. The commenters request that site remediation operations and/or hazardous waste management units that comply with RCRA 40 CFR part 264 or 265 subparts AA, BB, and CC be exempted from the Site Remediation NESHAP.

Response: When developing NESHAP that may affect sources managing RCRA hazardous waste sources, we recognize that the potential exists for regulatory overlap with other requirements we have previously established under our RCRA authority. Section 112(n)(7) of the CAA voices a strong preference for consistency of NESHAP with RCRA standards, where practicable. Similarly, section 1006(b) of RCRA requires that the air standards be consistent with and not duplicative of CAA standards. The provisions of the Site Remediation NESHAP have been developed to minimize, if not eliminate, regulatory overlap to the extent allowed under these different legislative acts.

Comment: Commenter [Docket entry IV-D-05] is concerned that any overlap of the RCRA correction action remediation program and the Site Remediation NESHAP could create confusion and increase the potential for misapplication of the various requirements. Specifically, the commenter is concerned that the Site Remediation NESHAP could be applied to facilities

undergoing RCRA corrective action as part of EPA's review and approval of a facility's proposed RCRA corrective action activities. The commenter requests EPA's acknowledgment that the Site Remediation NESHAP is a technology-based standard that need not, and should not, be considered in evaluating proposed RCRA corrective action initiatives (e.g., work plans and reports regarding, but not necessarily limited to, interim measures, RCRA facility investigations, corrective measures studies, corrective measures implementation, and corrective action monitoring).

Response: Under applicability exemptions to the final Site Remediation NESHAP, remediation activities performed for a RCRA corrective action are not subject to the NESHAP if performed at a TSDF that is either permitted by the EPA or under a State program authorized by the EPA under RCRA section 3006; or required by an order imposed by the EPA or a State program authorized for corrective action under RCRA section 3006; or any facility as required by orders authorized under RCRA section 7003. Determination of the corrective action initiatives needed at a given facility is evaluated on a site-specific basis through the RCRA corrective action program. We do not believe there should be any confusion or misapplication of requirements since standards contained in the Site Remediation NESHAP are essentially the same as those contained in the existing RCRA air standards (40 CFR Part 264 and 265 subparts AA, BB and CC).

#### **2.7.7 Rule Relationship to "Applicable or Relevant and Appropriate Requirement" under CERCLA**

Comment: Commenter [Docket entry IV-D-43] stated that although the proposed Site Remediation NESHAP would exempt site remediation activities that are undertaken using CERCLA authority, substantive requirements in the proposed NESHAP could arguably be considered an "Applicable or Relevant and Appropriate Requirement" (ARAR) under CERCLA. Thus, even though the proposed regulation specifically exempts CERCLA remediation activities, it appears that the relevant portions of the rule would be applied because they address similar situations. To avoid inappropriate use of the Site Remediation NESHAP as an ARAR, the EPA should clearly state in

the final rule that the requirements contained in the final rule are not relevant or appropriate for remediation activities conducted under CERCLA authority.

Response: Determination of whether a particular requirement is relevant and appropriate is a site-specific matter. Nothing in CERCLA requires EPA to declare categorically whether or not a particular requirement is relevant and appropriate at the time it is promulgated. Therefore, we decline the commenter's invitation. Nonetheless, as explained in both the preambles to the proposed and final Site Remediation NESHAP, we believe that CERCLA, rather than the requirements of this rule, provides the most appropriate, comprehensive and effective approach to address air emissions resulting from site remediation activities at sites addressed using CERCLA authority. See 67 FR 49406 (July 30, 2002). Therefore, as a general matter we do not expect the Site Remediation NESHAP to be an "appropriate" requirement in most CERCLA response actions.

#### **2.7.8 Compliance with Executive Order 13045**

Comment: Several commenters [Docket entries IV-D-06, IV-D-34, IV-D-36, IV-D-46, IV-D-50] contend that the proposed exemption of site remediations conducted to clean up radioactive mixed waste (RMW) from being subject to the site remediation NESHAP fails to comply with Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks.

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

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. The Site Remediation NESHAP is not subject to Executive Order 13045 because it is based on control technology and not on health or safety risks. No children's risk analysis was performed because no alternative technologies exist that would provide greater stringency at a reasonable cost. Furthermore, the Site Remediation NESHAP has been determined not to be "economically significant" as defined under Executive Order 12866.

## **2.8 OTHER COMMENTS**

### **2.8.1 Rule Format**

Comment: Three commenters [Docket entries IV-D-23, IV-D-29, IV-D-38] stated that presenting many rule requirements in an exclusively tabular format, and extensive cross-referencing to provisions in other subparts which we used for the proposed rule makes the rule not only exceptionally difficult to comply with, but also difficult to enforce.

Response: We have significantly revised the final rule's editorial format, organization, and regulatory text. Many of the requirements that were presented exclusively in tables in the proposed rule have been moved back into the regulatory text of the final rule and the applicable tables deleted. While these editorial changes to the final rule make it appear substantially different from the proposed rule, most of the technical and administrative requirements remain the same as proposed.

### **2.8.2 Federal Register Proposal Notice Editorial and Typographical Errors**

Comment: Several commenters (IV-D-01, IV-D-02, IV-D-09, IV-D-10, IV-D-22, IV-D-48) identified typographical error, cross-reference inconsistencies, and other editorial problems in the proposed rule published in the Federal Register notice.

Response: As discussed in our response in Section 2.8.2, we significantly revised the editorial format, organization, and regulatory text wording of the final rule eliminating many of the provisions and tables identified by the commenters with editorial and typographical errors. We corrected all of the language and citation errors identified by the commenters that were still relevant to the language we used in the final rule.