

US EPA ARCHIVE DOCUMENT

Planning for Polychlorinated Biphenyl (PCB)-Containing Disaster Debris

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Table of Contents

INTRODUCTION	1
PLANNING SUGGESTIONS FOR COMMUNITIES	3
<i>List of PCB-Containing Disaster Debris Management Planning Activities</i>	12
MANAGING COMMON PCB-CONTAINING DISASTER DEBRIS UNDER TSCA	13
Damaged PCB-Containing Electrical Equipment	13
Materials Contaminated from PCB Spills or Other Environmental Releases	14
<i>Table 1. Summary of TSCA’s four basic PCB management approaches</i>	15
PCB Spill Cleanup Policy, 40 CFR 761 subpart G.....	15
Self-implementing On-site Cleanup and Disposal of PCB Remediation Waste, 40 CFR	
761.61(a)	16
Performance-based Disposal, 40 CFR 761.61(b)	17
Risk-based Disposal Approval, 40 CFR 761.61(c).....	18
Available Resources for Emergency Responders	19
<i>Table 2. TSCA’s basic PCB management approaches for different PCB releases</i>	20
CONCLUSION	21
APPENDIX A: DIAGRAMS ON MANAGING PCB-CONTAINING DISASTER DEBRIS	23
APPENDIX B: OTHER APPLICABLE FEDERAL LAWS AND REGULATIONS	28
APPENDIX C: RESOURCES	31

Introduction

As a result of recent natural disasters, questions have arisen regarding the assessment, cleanup, and disposal of Polychlorinated Biphenyls (PCBs) during and immediately after an emergency situation caused by a natural disaster. This document supplements the Environmental Protection Agency's (EPA's) "Planning for Natural Disaster Debris Guidance" (located at <http://www.epa.gov/epawaste/conservation/rrr/imr/cdm/pubs/pnodd.pdf>) to provide more detailed information on the management of PCB-containing disaster debris in emergency situations that arise from natural disasters. PCBs are chlorinated organic chemicals that can harm human health and the environment when spilled or otherwise released into the environment. Under the Toxic Substances Control Act (TSCA), Congress in large part banned the manufacturing, processing, distribution, and use of PCBs after January 1, 1978 due to their toxicity, persistence in the environment, and ability to cause adverse health effects and bioaccumulate in fish and other animals.¹ Before the ban, PCBs were widely used in industrial, commercial, and residential applications and may still be found in many products, including transformers, capacitors, and other electrical equipment, oil used in motors and hydraulic systems, thermal insulation, and caulk. Some communities may not have any PCB items such as those mentioned above. However, those communities that have PCB-containing electrical equipment, particularly transformers and capacitors, may be at risk of PCB spills or other environmental releases during a natural disaster. A PCB spill or release could complicate cleanup operations during the resulting emergency response. Therefore, this document focuses on PCB-containing electrical equipment and materials contaminated by PCBs as a result of PCB spills or other environmental releases. While this document specifically addresses PCB spills or other releases caused by natural disasters (e.g., tornados, hurricanes, and floods), the information provided also may be useful for emergency situations arising from other incidents (e.g., explosions).

TSCA is the primary federal statute dealing with PCBs. Although states may have their own requirements with regard to PCBs, the TSCA PCB regulations have not been delegated to the states.² Instead, the federal government—through EPA—implements and enforces the TSCA PCB regulations. The TSCA PCB regulations, for the most part, do not distinguish between non-emergency and emergency situations; they largely apply equally to both. As a result, planning for emergency situations is particularly important for communities with PCB-containing electrical equipment. Planning can facilitate PCB assessment, cleanup, and disposal during emergency situations, while keeping the community compliant with all applicable regulations.

In general, emergency responders representing the owner or operator of the PCBs have primary responsibility for the cleanup of PCB spills or other environmental releases. However, in some emergency situations, the local, tribal, state, or federal government may conduct a cleanup of PCBs. The magnitude of the emergency, availability of resources, and other factors may determine which specific entity cleans up the spill or other release. For example, the state

¹ More detailed information on PCB health effects can be found on EPA's PCBs website at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>.

² However, some states are authorized by EPA to conduct inspections on behalf of EPA under TSCA. EPA provides funding to states and tribes through grants for compliance monitoring programs to conduct inspections in order to ensure compliance with the PCB regulations.

may request EPA's assistance in cleaning up PCB releases under EPA's authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or other statutes. However, EPA funds a CERCLA cleanup only if the owner is unwilling or unable to do so. EPA may then seek to recover its response costs from the owner after completing the cleanup. During major disasters or emergencies, EPA may be tasked by the Federal Emergency Management Agency (FEMA) to clean up PCBs under the "National Response Framework, Emergency Support Function (ESF) #10 – Oil and Hazardous Materials Response." Please see EPA's "Planning for Natural Disaster Debris Guidance" at <http://www.epa.gov/epawaste/consERVE/rrr/imr/cdm/pubs/pnodd.pdf> for information on the responsibilities of federal agencies for disaster debris management within a homeland security framework.

In addition, following a Presidential disaster declaration and a designation by FEMA for Public Assistance grant funding, assistance for response and recovery operations is available to eligible applicants. Sections 403, 407, and 502 of the Robert T. Stafford Act and 44 CFR 206.224, Debris removal, authorize FEMA to provide funding to eligible Public Assistance applicants to remove disaster-generated debris in order to eliminate an immediate threat to lives, public health and safety, or improved property or to ensure the economic recovery of the affected community. The debris must be the direct result of a Presidentially-declared disaster and located in the declared disaster area, and an eligible Public Assistance applicant must have the legal responsibility to remove the threat. Four types of entities are eligible applicants for Public Assistance: 1) state government agencies; 2) local governments (e.g., cities, municipalities, local public authorities, and school districts); 3) private nonprofit organizations that own or operate facilities that provide certain services of a governmental nature (e.g., utilities); and 4) federally-recognized Indian Tribal governments and Alaskan Native Villages. Privately-owned utilities generally are not eligible for Public Assistance funding from FEMA. Additional guidance on Public Assistance eligibility is available in FEMA 322, "Public Assistance Guide," which can be found at http://www.fema.gov/government/grant/pa/pag07_t.shtm.

The first section of this document provides suggestions for planning for communities where PCB-containing electrical equipment is located. The suggestions are intended primarily for local governments and local emergency planning committees (LEPCs) to help them plan and prepare for the management of damaged (e.g., leaking) PCB-containing electrical equipment and materials (e.g., soil, concrete, vegetation, building materials, utility poles) contaminated with PCBs as a result of PCB spills or other environmental releases during an emergency situation caused by a natural disaster.

The second section is intended to help emergency responders and anyone else responsible for managing PCB-containing disaster debris in emergency situations. It summarizes how TSCA regulations apply to the types of PCB-containing debris that would most likely be generated during a natural disaster. Particularly, this second section describes TSCA regulations that apply to damaged PCB-containing electrical equipment and the basic approaches under TSCA for assessing, cleaning up, and disposing of materials contaminated with PCBs that have been spilled or otherwise released into the environment.

Appendix A provides diagrams that are intended to help emergency responders manage PCB-containing disaster debris by outlining applicable sections of the PCB regulations. Appendix B summarizes how the Resource Conservation and Recovery Act (RCRA) and CERCLA apply to PCB spills or other environmental releases. Appendix C lists additional resources that may be helpful to communities and emergency responders.

Please note that this document does not establish any requirements, create any right or benefit, provide any relief from applicable regulations, or create any flexibility that is not currently allowed by law. Instead, this document emphasizes the need for planning for PCB-containing disaster debris and clarifies existing regulations. It is intended to encourage communities to begin planning immediately to help ensure their compliance with all applicable regulations during future natural disasters.

This document is not a regulation. It does not change or substitute for any legal requirement. This document is not a rule, is not legally enforceable, and does not confer legal rights or impose legal requirements upon any member of the public, states, or any other federal agency. Rather, this document restates and consolidates existing guidance and requirements. The word “should” in this document does not connote a requirement, but rather indicates EPA’s recommendations or suggestions. This document is intended to encourage communities to begin planning immediately to help ensure their compliance with all applicable regulations during future natural disasters. Furthermore, this document does not contain a complete listing of all applicable regulations; consult the regulations themselves for specific requirements. In addition, there may be state, local, and/or tribal PCB regulations or requirements, which should be consulted as well.

I. Planning Suggestions for Communities

- Create a disaster debris management plan

The key to successful management of any type of debris generated by a natural disaster, including PCB-containing disaster debris, is **planning**. The better prepared a community is for a natural disaster, the more efficient the response is likely to be in that community during and after a natural disaster. EPA recommends that every local government formalize its planning into a comprehensive disaster debris management plan, which will facilitate debris cleanup and disposal. A disaster debris management plan is a written document establishing procedures and guidelines for managing disaster debris, including damaged PCB-containing electrical equipment and PCB-contaminated materials, generated during a disaster. A thorough plan is important for managing disaster debris in a coordinated and environmentally responsible manner and for providing important information for emergency responders. General information on preparing a disaster debris management plan and managing PCB-contaminated materials can be found in EPA’s “Planning for Natural Disaster Debris Guidance” at <http://www.epa.gov/epawaste/consERVE/rrr/imr/cdm/pubs/pnDD.pdf>. FEMA’s detailed and comprehensive “Public Assistance: Debris Management Guide (FEMA 325),” which includes

information for developing a plan and a summary of FEMA's Public Assistance eligibility criteria for debris removal and disposal operations, can be found at <http://www.fema.gov/government/grant/pa/demagde.shtm>.³ The information below is specific to PCB-containing disaster debris and supplements the abovementioned documents.

The local government of any community where PCB-containing electrical equipment, such as transformers on utility poles and capacitors, is located should include in its disaster debris management plan a section on managing PCB-containing disaster debris. To be effective in an emergency situation, planning for the proper management of PCB-containing disaster debris should be comprehensive. Therefore, the local government should plan for at least the most common forms of PCB-containing disaster debris that are likely to be generated during a natural disaster. The most likely forms of PCB-containing disaster debris are damaged (e.g., leaking) PCB-containing electrical equipment and materials contaminated with PCBs (e.g., soil, concrete, vegetation, building materials, utility poles) resulting from PCB spills or other environmental releases. Local governments frequently will find it advisable to coordinate and work with the owner(s) (e.g., private electrical utility) of the PCB-containing electrical equipment through the community's local emergency planning committee (LEPC)⁴ in developing a comprehensive plan in addition to considering PCB-containing electrical equipment that the local government itself owns. The LEPC can help encourage nongovernmental owners of PCB-containing electrical equipment to make their own plans for emergency situations consistent and coordinated with the local government's disaster debris management plan. This will help mitigate potential risks to human health and the environment in the community as a result of PCB spills or other environmental releases caused by a natural disaster. The planning recommendations for communities in this section are applicable to LEPCs, as well as local governments.

- Identify the sources and locations of PCB-containing electrical equipment
- Estimate the quantity of PCB-contaminated materials that may be generated by a disaster
- Document the contact information of the entities responsible for the PCB-containing electrical equipment

As part of planning, before an emergency occurs, EPA recommends that the community, through the local government and the LEPC, identify PCB-containing electrical equipment in the community and document the exact location of each piece of equipment in the disaster debris management plan. Some of this information may be found in records kept pursuant to PCB

³ "Communities with a debris management plan are better prepared to restore public services and ensure the public health and safety in the aftermath of a disaster, and they are better positioned to receive the full level of assistance available to them from FEMA and other participating entities." Federal Emergency Management Agency. (2007). Public Assistance: Debris Management Guide (FEMA 325). Foreword. Washington, DC.

⁴ For more information on the role of LEPCs in communities, please see EPA's "Planning for Natural Disaster Debris Guidance" at <http://www.epa.gov/epawaste/conserve/rrr/imr/cdm/pubs/pnnd.pdf>.

regulatory requirements, including the EPA-maintained Transformer Registration Database,⁵ which can be accessed at <http://www.epa.gov/pcb/pubs/data.htm>, or by working with the electric utility companies or other owners of PCB-containing electrical equipment. Knowing where PCB-containing electrical equipment is located in an area affected by a natural disaster will help determine whether response efforts need to include PCB assessment, cleanup, and disposal and will facilitate those efforts if they are necessary. Also, a local government can use its inventory of PCB-containing electrical equipment to help estimate the quantity of PCB-containing disaster debris that may be generated by a natural disaster. This information, along with the contact information of the entities responsible for the PCB-containing electrical equipment (e.g., local government, public electric utility), also should be documented in the disaster debris management plan. A hardcopy of the plan should be kept in multiple places in case the building where the records are stored is destroyed or is not accessible and the plan cannot be accessed electronically, which has occurred in previous natural disasters.

➤ Determine and document PCB concentrations

In addition to the locations of the PCB-containing electrical equipment, the local government should document in its disaster debris management plan the PCB concentrations in all electrical equipment in the community, including equipment not owned by the local government itself. This will help facilitate PCB cleanup and disposal following a natural disaster. Information regarding the PCB concentrations in electrical equipment owned by nongovernmental entities often may be obtained from the LEPC. Please note that the PCB concentration assumptions for PCBs in use at 40 CFR 761.2 (which allow persons to make assumptions about the PCB concentrations in certain pieces of electrical equipment, in lieu of testing, while that electrical equipment is in use) do not apply to the disposal of those pieces of electrical equipment. If the actual concentrations of the electrical equipment are not known because they were assumed under the assumption rules, testing in accordance with the PCB regulations may be necessary to determine their actual PCB concentrations in order to ensure that proper disposal of the equipment takes place.⁶ Therefore, EPA recommends that local governments consider the feasibility of having the PCB-containing electrical equipment tested, if testing is necessary, before an emergency situation occurs. If the local government itself has a lot of untested PCB-containing electrical equipment, the local government may want to develop a plan to have its equipment tested over a period of time. The test results should be kept in the

⁵ Pursuant to 40 CFR 761.30(a)(1)(vi)(A), all owners of PCB transformers, including those in storage for reuse, must register their transformers with the Environmental Protection Agency. A transformer owner must retain a record of each PCB transformer's registration (e.g., a copy of the registration and the return receipt signed by EPA) in compliance with 40 CFR 761.30(a)(1)(vi)(C). In addition, in accordance with 40 CFR 761.30(a)(1)(vii), owners of PCB transformers in use in or near commercial buildings are required to keep records of the: 1) specific location of the PCB transformer(s); 2) principal constituent of the dielectric fluid in the transformer(s); and 3) type of transformer installation (e.g., 208/120 volt network, 208/120 volt radial). Owners or operators of noncommercial PCB storage facilities must keep, in accordance with 40 CFR 761.180(a)(1), a record of: 1) all signed manifests generated by the facility during the calendar year; 2) all Certificates of Disposal that have been received by the facility during the calendar year; and 3) records of inspections and cleanups performed in accordance with 761.65(c)(5). Also, local authorities, including fire departments, may keep some records.

⁶ Criteria to determine PCB concentrations can be found at 40 CFR 761.1(b)(4).

disaster debris management plan in order to avoid the need for retesting the electrical equipment prior to disposal if the information is not available, which may delay and increase the cost of the cleanup.

- Find alternatives to mail service for sending PCB samples

If, during an emergency situation, the concentrations of PCB-contaminated materials have to be tested so that the materials can be disposed of properly pursuant to the PCB regulations, emergency responders would need to send samples of the PCB-contaminated materials to laboratories for testing.⁷ This testing could be hindered if mail service is not functioning as a result of the emergency situation, thereby delaying the cleanup. The local government can help emergency responders by planning for this possibility. The local government should identify alternatives for getting samples to the laboratory and getting back the test results (e.g., courier) and document these alternatives in the disaster debris management plan.

- Replace or refill existing PCB-containing electrical equipment

Once a local government identifies and locates all of its PCB-containing electrical equipment, it should consider the feasibility of replacing or refilling⁸ this equipment. The best preparation that can be done to protect a community from PCB spills or other environmental releases during a natural disaster is to remove the potential hazard from the community where it is practical to do so. The local government or LEPC, by working with the electric utility companies and/or other owners of PCB-containing electrical equipment in the community, might be able, in some cases, to remove the potential hazard by replacing or refilling existing PCB-containing electrical equipment. The replaced or refilled equipment then can be reclassified to non-PCB status in accordance with applicable local, tribal, state, and federal regulations before an emergency situation occurs. Refer to the PCB regulations at 40 CFR 761.30(a)(2)(v) for details and a chart on refilling transformers. The local government can set a good example in the community by creating a schedule to replace or refill its PCB-containing electrical equipment and following through with it. Although there is a cost associated with replacing or refilling PCB-containing electrical equipment, EPA believes that the most efficient way to remove this potential hazard to the community would be to replace or refill such equipment. Replacing or refilling PCB-containing electrical equipment will minimize the risk of PCB releases by such equipment during a natural disaster, thus possibly saving needed time and

⁷ As an alternative to testing, emergency responders can assume that the PCB concentrations of all the contaminated material from a spill or other release are equal to or greater than 500 ppm and dispose of the material in accordance with 40 CFR 761.61(b).

⁸ As defined by the PCB regulations at 40 CFR 761.3, the term “refill” means “to remove PCB or PCB-contaminated dielectric fluid and to replace it with either PCB, PCB-contaminated, or non-PCB dielectric fluid.”

resources during cleanup and disposal. In addition, it may be more cost effective in the long run to replace or retrofit PCB-containing electrical equipment before a natural disaster happens rather than cleaning up and disposing of the PCB-containing electrical equipment and contaminated material during one or more emergency situations. As PCB-containing electrical equipment is replaced or retrofitted, the disaster debris management plan should be kept up-to-date to reflect the changing inventory.⁹ Please note that recordkeeping and reporting requirements apply to facility owners or operators who dispose of PCB-containing electrical equipment that were in use or stored, as described in 40 CFR 761.180(a).¹⁰

- Prepare for the assessment, cleanup, and management of PCB-containing disaster debris

Even if an effort is made to replace or retrofit existing PCB-containing electrical equipment in a community before a natural disaster happens, there still may be PCB-containing electrical equipment remaining in the community. Therefore, EPA encourages the local government to coordinate with the LEPC and plan for PCB spills or other environmental releases during a natural disaster by incorporating information into the disaster debris management plan on how to assess, clean up, and manage any damaged PCB-containing electrical equipment and any materials contaminated with PCBs as a result of PCB spills or releases. (A summary of how to manage PCB-containing disaster debris under TSCA can be found in the second section of this document.) The local government and LEPC should take into account the possibilities that the owner or source of the PCBs may be unknown and the PCB equipment or releases may be difficult to find. For example, a tornado may drop a known PCB-containing transformer miles from its documented pre-disaster location. In addition, the plan should address the possibility that the release or spill location may not be easily or immediately accessible by the owner or by emergency responders due to blocked or flooded roads or rescue operations, for instance. The plan should include procedures for preventing public access to any PCB-contaminated area and describe who is responsible for satisfying recordkeeping requirements when the owner cannot be found.

⁹ Note that the assumed PCB concentration of a retrofilled item is only valid during the use of the item under 40 CFR 761.30. At the time of disposal, even after a natural disaster, the actual concentration of the item must be known in order to choose a less stringent disposal option. The PCB regulations do not allow one to rely on the concentration of the retrofit for disposal because of the possibility that PCB concentrations may increase over time post-retrofill.

¹⁰ Pursuant to 40 CFR 761.180(a), the owner or operator of a facility that uses or stores “at any one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s), or one or more PCB Transformers, or 50 or more PCB Large High or Low Voltage Capacitors shall develop and maintain at the facility, or a central facility provided they are maintained at that facility, all annual records and the written annual document log of the disposition of PCBs and PCB Items... The annual document log shall be maintained for at least 3 years after the facility ceases using or storing PCBs and PCB Items in the quantities prescribed in this paragraph. Annual records (manifests and certificates of disposal) shall be maintained for the same period.” 40 CFR 761.180(a) further specifies the types of records that the annual records and the written annual document log shall include, such as Certificates of Disposal and information on the “serial number (if available) or other means of identifying each PCB Article (e.g., transformer or capacitor), the weight in kilograms of the PCB waste in each transformer or capacitor, the date it was removed from service for disposal, the date it was placed in transport for off-site storage or disposal, and the date of disposal, if known,” respectively.

➤ Identify staging and temporary storage areas

Not only will PCB-containing disaster debris have to be cleaned up, but, depending upon the circumstances, the debris may need to be temporarily stored before it can be ultimately managed. To facilitate the handling of damaged PCB-containing electrical equipment or PCB-contaminated materials during an emergency situation, the local government should identify staging and temporary storage areas, or debris management sites, prior to a natural disaster, taking into account debris storage areas identified in the broader disaster debris management plan. The owner or operator of any temporary storage area intended for PCB-containing electrical equipment and PCB-contaminated materials with concentrations of 50 ppm or greater must comply with 40 CFR 761.65.¹¹ For example, in accordance with 40 CFR 761.65(c)(10), owners or operators of temporary storage facilities established under 40 CFR 761.65 must comply with the recordkeeping and reporting requirements in 40 CFR 761.180. PCB-containing electrical equipment and PCB-contaminated materials that are transported to a commercial off-site storage or off-site treatment or disposal facility will need a manifest in accordance with 40 CFR 761.207.

- Pre-negotiate contracts for PCB-related services
- Identify the PCB-contaminated materials and amounts each facility will or can accept
- Document contractors' addresses and contact information

To prepare, the local government should consider establishing contracts with qualified contractors for the cleanup, storage, and transportation¹² of damaged PCB-containing electrical equipment and PCB-contaminated materials before an emergency occurs.¹³ Local governments may access FEMA's online Debris Removal Contractor Registry at <https://asd.fema.gov/inter/drcr/home.htm> to search for debris removal contractors in their state or region.¹⁴ For PCB-containing electrical equipment that is not owned by the local government,

¹¹ PCB wastes can be held in storage for up to one year before their disposal. This one-year time frame begins when the decision was made to dispose of the PCB wastes (referred to as the date of removal from service for disposal). Extensions to the one-year time limit may be obtained under certain circumstances by contacting the appropriate EPA Region. The temporary storage area must meet the design requirements detailed at 40 CFR 761.65(b). However, certain PCB wastes, pursuant to 40 CFR 761.65(c), may be stored for up to thirty days, beginning from the date of their removal from service, without meeting the criteria in 40 CFR 761.65(b). Refer to 40 CFR 761.65 for the complete requirements regarding temporary storage of PCB wastes.

¹² Persons responsible for transporting PCB wastes must have required Department of Transportation training and must ship these wastes in accordance with 49 CFR Parts 171 through 180. Also, there may be state and local requirements.

¹³ Contractors cleaning up a site, storing PCB wastes, or transporting PCB wastes should refer to 40 CFR 761 Subpart D (storage and disposal requirements) and 40 CFR 761 Subpart G (PCB Spill Cleanup Policy).

¹⁴ FEMA does not endorse or certify debris removal contractors. Contracting with any of the entities in this database does not assure a state or local government of reimbursement under a Federal grant. Additionally, in order

the LEPC should encourage the owner of each piece of equipment to have these pre-negotiated contracts in place if they have not been established already. Similarly, contracts could also be pre-negotiated with authorized facilities for the treatment and disposal of the damaged PCB-containing electrical equipment and PCB-contaminated materials. Pre-negotiated contracts with these facilities also would facilitate the management of PCB-containing disaster debris in an emergency situation. Please note that, as discussed on page 15 of its “Public Assistance: Debris Management Guide (FEMA 325)” (located at <http://www.fema.gov/pdf/government/grant/pa/demagde.pdf>), FEMA may reimburse contract costs that meet its eligibility criteria.

It should be noted that different kinds (e.g., liquid and non-liquid) and concentrations of PCB-contaminated materials may need to be managed at different storage, treatment, and disposal facilities. Therefore, it may be appropriate, prior to a natural disaster, to negotiate contracts with more than one storage, treatment, and/or disposal facility in order to manage all the PCB-contaminated materials that could be generated in a community during a natural disaster. Also, multiple contracts may be helpful in case a chosen facility is damaged as a result of the natural disaster or large volumes of PCB-contaminated materials are generated and need to be managed at different facilities due to limited capacity. In addition, facilities that have both a Resource Conservation and Recovery Act (RCRA) permit and TSCA approval for PCBs may be needed if the PCB-contaminated materials also are found to be subject to the hazardous waste provisions of RCRA, as discussed in Appendix B. A list of TSCA-approved disposal facilities can be found at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/stordisp.htm>, and a list of TSCA-approved commercial storage facilities can be found at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/comstor.htm>. RCRA-permitted facilities in each EPA Region can be found at <http://www.epa.gov/waste/hazard/tsd/permit/pgprarpt.htm>. The disaster debris management plan should detail the PCB-contaminated materials that each potential facility will or can accept, accounting for likely PCB-contaminated materials and their respective amounts that may be generated in a community due to the natural disaster.¹⁵ The facilities’ addresses and contact information should be documented in the plan as well; this ensures that the information is readily available during an emergency situation. Having these arrangements in place prior to a natural disaster will save time and resources as the efforts of finding contractors to clean up and manage the PCB-contaminated materials in the appropriate facilities will have already been completed to a large extent.

to be eligible for reimbursement under the Public Assistance Program, contracts for debris removal must meet the rules for Federal grants, as provided for in 44 CFR Part 13.36, Procurement.

¹⁵ In identifying the PCB-contaminated materials and amounts that likely will be generated during a natural disaster, the local government also should be able to estimate the cost of cleaning up and disposing of those materials. As part of this effort, the local government should look into whether a contractor can salvage anything in the PCB-containing electrical equipment, such as oil or copper, in order to get the cost of managing the damaged equipment discounted or waived. More information on contracts that permit the contractor to salvage recoverable disaster debris materials can be found on page 11 of FEMA’s “Public Assistance: Debris Management Guide (FEMA 325)” at <http://www.fema.gov/pdf/government/grant/pa/demagde.pdf>.

- Obtain or contract for equipment and supplies
- Identify how backup equipment and supplies will be obtained

EPA also recommends that the disaster debris management plan include a list of equipment and supplies necessary for the proper cleanup and handling of PCB-contaminated materials, including transport equipment and pre-printed PCB labels. PCB labels are required for identification on drums, transformers, and other items and for temporary storage areas. The equipment and supplies should be obtained in advance of a natural disaster or be contractually available. However, it is important to note that a disaster may destroy the available equipment and supplies within the affected location or render them inaccessible. Therefore, the plan also should identify how the necessary backup equipment and supplies would be obtained under these circumstances. FEMA may assist in purchasing the needed equipment and supplies when an eligible Public Assistance applicant does not have sufficient equipment or supplies to respond effectively to a Presidentially-declared disaster. However, in accordance with FEMA Disaster Assistance Policy 9525.12, “Disposition of Equipment, Supplies and Salvageable Materials” (located at http://www.fema.gov/government/grant/pa/9525_12.shtm), the applicant may be required to compensate FEMA for the fair market value of the cost of the equipment and unused supplies when the items are no longer needed for a disaster.

- Address all applicable requirements
- Review plan annually and revise as necessary
- Exercise the plan
- Document EPA and state contact information

In short, a local government’s planning and preparation will help facilitate the quick recovery of a community after a natural disaster involving PCB spills or other releases occurs; its disaster debris management plan may be critical for emergency responders to safely and effectively clean up PCB spills or other releases resulting from natural disasters. Therefore, the disaster debris management plan should explain in detail how damaged PCB-containing electrical equipment and materials contaminated from PCB spills and other releases will be cleaned up and disposed of in accordance with all applicable regulations and guidance. A comprehensive plan not only addresses federal regulations but also addresses the applicable state, local, and tribal regulations and guidance. The local government should review the plan once a year and revise it, as needed. In addition, the local government may find it helpful to exercise the plan in order to become familiar with the plan and determine if the plan is clear and useful.

Planning for PCB cleanup and disposal can facilitate compliance with all PCB regulations during responses to natural disasters. Federal, state, local, and tribal governments should work closely in developing comprehensive disaster debris management plans to ensure that all applicable regulations and policies have been addressed and that their responsibilities for

responding to natural disasters are clearly defined. In addition, EPA is available to help a local government prepare a cleanup plan for an emergency situation and can answer questions about regulatory requirements. A list of EPA's regional PCB contacts is located at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coordi.htm>. State and local contact information may be available from the appropriate EPA Regional Office. The local, state, and EPA regional PCB contacts and their contact information should be included in the disaster debris management plan and routinely updated in the plan, as necessary.

PCB-Containing Disaster Debris Management Planning Activities

A disaster debris management plan may address the following activities for the management of PCB-containing disaster debris:

- ❖ Identify all applicable federal, state, and local requirements
- ❖ Document the appropriate state and EPA regional contacts and their contact information
- ❖ Present a plan to manage existing PCB-containing electrical equipment
 - Identify all PCB-containing electrical equipment in the community
 - Identify the sources of all PCB-containing electrical equipment
 - Document the exact locations of PCB-containing electrical equipment
 - Identify the owner(s)/operator(s) of the PCB-containing electrical equipment
 - Document the contact information of the entity(ies) responsible for the equipment
 - Determine the concentrations of PCBs in the identified equipment
 - Create a plan for replacing or refilling existing PCB-containing electrical equipment
 - Review and revise, as needed, the disaster debris management plan annually to reflect changes, including those resulting from replacing or refilling PCB-containing electrical equipment
 - Exercise the plan to become familiar with it and determine if the plan is clear and useful
- ❖ Plan for a natural disaster
 - Prepare for the assessment, cleanup, and disposal of damaged PCB-containing electrical equipment and materials contaminated from PCB spills or other releases
 - Estimate the quantity of PCB-contaminated materials that may be generated by a natural disaster
 - Identify staging and temporary storage areas that meet regulatory requirements
 - Find alternatives to mail service for sending PCB samples to a laboratory
 - Document storage, treatment, and disposal facilities' addresses and contact information
 - Identify the PCB-contaminated materials and amounts that each authorized facility will or can accept
 - Identify alternate facilities
 - Obtain or contract for the necessary services and supplies for PCB management (e.g., pre-printed PCB labels) before a natural disaster occurs
 - Negotiate contracts with contractors for the cleanup and transportation of PCB-contaminated materials
 - Negotiate contracts with authorized facilities for the storage, treatment, and disposal of PCB-contaminated materials
 - Obtain or negotiate contracts for the necessary equipment and supplies for proper cleanup and handling of PCB-contaminated materials
 - Identify how backup equipment and supplies will be obtained

II. Managing Common PCB-Containing Disaster Debris under TSCA

A natural disaster may generate PCB-containing debris that needs to be assessed, cleaned up, and disposed of during the response. The most common forms of PCB-containing disaster debris likely to be generated by a natural disaster are: 1) damaged (e.g., leaking) PCB-containing electrical equipment that was in use or stored for reuse before the natural disaster; and 2) materials (e.g., soil, concrete, vegetation, building materials, utility poles) contaminated by spills or other environmental releases of liquid PCBs from PCB-containing electrical equipment during and following the natural disaster. Just as a community's planning and preparation can assist a response to a natural disaster, emergency responders and anyone else responsible for managing PCB-containing disaster debris in emergency situations can facilitate a response by familiarizing themselves with how TSCA applies to this debris. This section describes how TSCA regulations apply to these most common forms of PCB-containing disaster debris.¹⁶

Damaged PCB-Containing Electrical Equipment:

Damaged PCB-containing electrical equipment may be repaired or disposed of in accordance with the following regulations:

- Use/reuse of equipment – Damaged PCB-containing electrical equipment may be repaired if the owner wants to use or reuse it. The regulations at 40 CFR 761 subpart B address the repair, use, distribution in commerce for use, and storage for reuse of equipment that is usable, repairable, and desired for use or reuse.
- Disposal of removed liquids – Liquid PCBs that are not used in accordance with 40 CFR 761 subpart B are regulated for disposal in accordance with 40 CFR 761.60(a).
- Disposal of equipment – If the electrical equipment is no longer usable or repairable or if the owner of the equipment wants to dispose of the equipment, then the equipment may be disposed of in accordance with 40 CFR 761.60(b). There are provisions for temporary storage for 30 days or less at 40 CFR 761.65(c)(1).

¹⁶ Actions prohibited by the TSCA PCB regulations generally continue to be a violation of federal law in an emergency situation caused by a natural disaster. In unusual circumstances, however, it may be possible to obtain a grant of enforcement discretion for a particular violation during a specified time span. Generally, there are two situations where enforcement discretion may be granted: 1) where it is expressly provided for by an applicable statute; and 2) in extremely unusual circumstances where an assurance is clearly necessary to serve the public interest *and* which no other mechanism can address adequately. EPA has a general policy against giving definitive assurances, outside the context of a formal enforcement proceeding, that it will not proceed with an enforcement response for a specific violation of an environmental protection statute, regulation, or legal requirement. This was formalized in 1984 following Agency-wide review and comment and reaffirmed in 1995. See Courtney M. Price, *Policy Against "No Action" Assurances* (Nov. 16, 1984) at <http://www.epa.gov/compliance/resources/policies/civil/rcra/noactionass-mem.pdf> and Steven A. Herman, *Processing Requests for Use of Enforcement Discretion* (March 3, 1995) at <http://www.epa.gov/compliance/resources/policies/civil/io/proreq-hermn-mem.pdf>.

Materials Contaminated from PCB Spills or Other Environmental Releases:

The TSCA PCB regulations and policy statements offer several basic approaches for the cleanup and disposal of contaminated material (e.g., soil, concrete) resulting from PCB spills or other releases into the environment, which can be used during a response to a natural disaster.¹⁷ Three of these approaches are regulatory and are found in 40 CFR 761.61. The fourth approach is under EPA's "PCB Spill Cleanup Policy," which is an enforcement policy codified in 40 CFR 761 subpart G. With regard to the regulatory approaches, the self-implementing on-site cleanup and disposal of PCB remediation waste approach at 40 CFR 761.61(a) (self-implementing approach) and the risk-based disposal approval approach at 40 CFR 761.61(c) (risk-based approach) address both cleanup and disposal; however, the performance-based disposal approach at 40 CFR 761.61(b) (performance-based approach) addresses only disposal.¹⁸ The most appropriate approach for cleaning up and disposing of the PCB-contaminated materials depends upon the particular conditions at the PCB release site(s).

This section will summarize these approaches and describe some of the factors to consider when evaluating which of TSCA's approaches might be appropriate in cleaning up a PCB spill or other release and disposing of the PCB-contaminated material. Information on how RCRA and CERCLA may apply to PCB spills or other releases can be found in Appendix B of this document. Emergency responders should consult the regulations for further detail about the requirements to determine how these requirements apply to a particular spill or other release. EPA Regional Offices also are available to provide information and assistance to emergency responders. Contact the EPA Region in which the release occurs for guidance in cleaning up and disposing of PCB-contaminated materials. A map of EPA's Regions is located at <http://www.epa.gov/aboutepa/index.html#regional>. EPA's regional PCB contacts can be found on EPA's PCBs website at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coord.htm>.

The basic approaches under TSCA that can be used to address unauthorized PCB releases are: 1) the PCB Spill Cleanup Policy (40 CFR 761 subpart G); 2) the self-implementing approach (40 CFR 761.61(a)); 3) the performance-based approach (40 CFR 761.61(b)); and 4) the risk-based approach (40 CFR 761.61(c)). Each of these approaches was developed under the TSCA standard that the cleanup must not pose an unreasonable risk of injury to human health or the environment. In addition, 40 CFR 761.61 makes it clear that the specific requirements for PCB remediation waste do not prohibit quick action to protect human health and the environment through the implementation of temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB-contaminated materials. However, each approach differs with regard to its sampling, cleanup, and disposal requirements, thereby offering a range of options. The decision of which approach to apply depends upon site characteristics, land use, how much time and resources are available for

¹⁷ Although this section focuses on the disposal of contaminated materials resulting from PCB spills or other environmental releases, some materials contaminated by PCB spills or other releases may be reused if properly decontaminated in accordance with 40 CFR 761.79.

¹⁸ 40 CFR 761.61(b) does not address cleanup levels, and the PCB regulations provide no standard that allows any concentration of PCBs to remain on-site. However, the "PCB Question and Answer Manual" points out that PCB-contaminated materials must contain PCBs at concentrations of <1 ppm in order to be completely unregulated for disposal off-site without an approval from EPA.

cleaning up the release, and other factors. Some key features of the four basic approaches are summarized in Table 1 below.

Table 1. Summary of TSCA’s four basic PCB management approaches.

Management Approach	EPA Notification	EPA Approval	Immediate Cleanup	Site Sampling	Cleanup Levels	Disposal Options
PCB Spill Cleanup Policy 40 CFR 761.125	Yes ¹	No	Yes	Required	Specified	Subpart D of TSCA PCB regulations applies
Self-implementing on-site cleanup and disposal of PCB remediation waste 40 CFR 761.61(a)	Yes (at least 30 days prior to the date that the cleanup of a site begins)	Yes ²	No	Required – Comprehensive	Prescribed in regulation	Prescribed in regulation
Performance-based disposal 40 CFR 761.61(b)	No	No	Yes	No ³	None ⁴	Prescribed in regulation
Risk-based disposal approval 40 CFR 761.61(c)	Yes	Yes	No	Flexible ⁵	Flexible ⁵	Flexible ⁵

¹ EPA notification is required for excluded spills (40 CFR 761.120(d)) and spills that exceed 10 pounds of PCBs by weight. EPA notification is in addition to applicable reporting requirements under the Clean Water Act and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, including the requirement under the National Contingency Plan that all spills involving 1 pound or more by weight of PCBs must be reported to the National Response Center.

² EPA has the opportunity to disapprove or require additional information; however, if EPA does not act within 30 days, approval may be considered granted, and cleanup may proceed. See 40 CFR 761.61(a)(3)(ii).

³ Although sampling is not required, EPA encourages sampling if it is practical or possible to do so in order to confirm that a PCB concentration of <1 ppm remains.

⁴ The PCB regulations provide no standard that allows any concentration of PCBs to remain on-site. However, soil must contain PCBs at a concentration of <1 ppm in order to be completely unregulated for disposal off-site without an approval from EPA. See *PCB Question and Answer Manual*, as of January 2009, at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#QandA>.

⁵ Applicant must show that the proposed activity will not pose an unreasonable risk of injury to health or the environment. A site-specific risk assessment may be required.

PCB Spill Cleanup Policy

The PCB Spill Cleanup Policy may be used to address small (about 20 feet in diameter or less¹⁹) spills or other releases that are less than 72 hours old. Cleanup for these releases usually must be completed within 48 hours of the discovery of the release; however, circumstances, such as adverse weather conditions, lack of access to the site due to physical impossibility, or emergency operating conditions, may extend the timeframe for the cleanup of PCB-contaminated

¹⁹ As stated on pages 78-79 in the “PCB Question and Answer Manual,” as of January 2009, the PCB Spill Cleanup Policy Guidance Manuals (which are referenced in 40 CFR 761.130(e) and located at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm>) were designed for small sites of approximately 20 feet in diameter.

materials for the duration of the adverse conditions, as long as records documenting the delay are kept. EPA recommends discussing the terms and applicability of the PCB Spill Cleanup Policy with the EPA Regional Office that has jurisdiction over the location where the spill occurred.

Pursuant to 40 CFR 761.125(a)(1), the EPA Regional Office must be notified about excluded spills and spills that exceed 10 pounds of PCBs by weight within 24 hours after their discovery. Excluded spills under the PCB Spill Cleanup Policy include spills that contaminate 1) surface waters; 2) sewers or sewage treatment systems; 3) any private or public drinking water sources or distribution systems; 4) animal grazing lands; and 5) vegetable gardens. Although the PCB Spill Cleanup Policy can still be applied generally to any of these excluded spills, the application of the policy for these excluded spills should be discussed with the appropriate EPA Regional Office. The person responsible for the spill must decontaminate and clean up the excluded spill in accordance with site-specific requirements established by the EPA Regional Office. The Regional Office also may specify any special conditions for the cleanup given that PCB releases in these excluded locations can pose the most risk to human health and the environment.

There are exceptional spill situations, such as PCB spills that pose a high degree of potential for ground water contamination, that are not excluded from the scope of the PCB Spill Cleanup Policy. These spills, however, may require more stringent cleanup levels. For these exceptional spill situations, EPA may require additional cleanup in accordance with 40 CFR 761.120(b) if it finds, based on site-specific factors, that further cleanup is necessary to prevent unreasonable risk. Please refer to the policy for more detail.

Self-implementing On-site Cleanup and Disposal of PCB Remediation Waste

The self-implementing approach was designed for moderately-sized sites (approximately one acre or less) where remediation activities would be likely to have low residual environmental impact. Depending upon the complexity of the site, the self-implementing approach may take some time to complete. This approach is laid out in 40 CFR 761.61(a) and contains detailed conditions and requirements on site characterization, notification, cleanup levels, disposal, cleanup verification, capping requirements, deed restrictions, and recordkeeping. The first requirement is written notification to the EPA Regional Office. EPA has 30 days to review and respond to the notification. However, the person submitting the notification may assume that it is complete and acceptable and proceed with the cleanup according to the information provided to the EPA Regional Office if the EPA Regional Office does not respond within 30 calendar days of receiving the notice. Also, this approach specifies a detailed sampling grid and requires specific information to be submitted to the appropriate Regional Administrator.

However, the self-implementing approach does contain some flexibility, which emergency responders and owners may find useful during an emergency response situation. With regard to the 30-day notification requirement, a waiver is permitted under 40 CFR 761.61(a)(3)(iii) if the person conducting the cleanup receives a separate waiver, in writing, from each of the agencies they are required to notify under 40 CFR 761.61(a)(3)(i). This approach also contains a range of disposal options for PCB-contaminated materials; for example, PCB-contaminated materials below a 50 ppm concentration may be sent to a non-TSCA facility, such

as a municipal solid waste facility, in accordance with 40 CFR 761.61(a). In addition, 40 CFR 761.61 does not prohibit quick action to protect human health and the environment through the implementation of temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB-contaminated materials. Emergency response situations directly resulting from natural disasters (e.g., earthquakes, hurricanes, floods, tornados, wildfires) call for quick action to protect human health and the environment. The same can be said of sudden, unexpected emergency situations, such as a transformer rupturing or exploding without warning. However, failure by the emergency responders or owners to work with EPA regional officials during the emergency situation could result in the need to redo the on-site work or to re-dispose of the waste in a legal manner. Refer to 40 CFR 761.61(a) for the complete self-implementing on-site cleanup and disposal of PCB remediation waste requirements.

Please note that there are some spill situations excluded from application of the self-implementing approach. Pursuant to 40 CFR 761.61(a)(1)(i), the self-implementing approach may not be used to clean up: 1) surface or ground waters; 2) sediments in marine and freshwater ecosystems; 3) sewers or sewage treatment systems; 4) any private or public drinking water sources or distribution systems; 5) grazing lands; and 6) vegetable gardens.

Performance-based Disposal

The performance-based provision can apply to PCB remediation waste from any sized site. It may be the fastest approach to implement depending upon site conditions. It can be used to remove all PCB-contaminated materials (e.g., highly-contaminated soil as a result of a transformer spill) from a site without extensive sampling and to dispose of the materials in an approved facility. Unlike the self-implementing approach, the performance-based approach does not require notification of EPA, and EPA approval is not necessary. Cleanup can begin immediately, but the provision does not provide cleanup levels. Instead, it requires that performance-based disposal standards are met. Please note that to be completely unregulated for disposal off-site without EPA approval, PCB-contaminated materials must be <1 ppm. For more information, see the “PCB Question and Answer Manual,” as of January 2009, at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#QandA>.

This approach may be the best approach for responders to take if PCB concentrations are unknown and testing is infeasible or the removal and disposal of PCB-contaminated materials are time-critical. Responders can assume that the PCB concentrations of all the contaminated material from a spill or release are equal to or greater than 500 ppm and manage this waste in an appropriate off-site treatment and/or disposal facility. However, it is important to note that there may not be any appropriate facilities located near the site, thus possibly requiring the transportation of the waste over large distances. See the regulations for more details about this approach.

Risk-based Disposal Approval

Another option for cleaning up any sized PCB spill or release is the risk-based approach, which may provide the greatest flexibility during emergency situations by allowing the sampling, cleanup, storage, and disposal options to be customized to the particular site conditions. This potential for flexibility may make the risk-based approach the best approach to take when a site's assessment or cleanup is complicated as a result of the emergency situation. To clean up a site under this approach, an application to EPA is required and must contain information described in the notification requirement under 40 CFR 761.61(a)(3). EPA reviews applications on a case-by-case basis and must issue a written decision finding that the proposed method will not pose an unreasonable risk of injury to health or the environment. This EPA notification and approval are necessary before the cleanup process can begin. As with the self-implementing approach, temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB-contaminated materials may be implemented during the emergency situation without EPA's prior written approval in order to limit the spread of contamination. However, failure by the emergency responders or owners to work with EPA regional officials during the emergency situation could result in the need to redo the on-site work or to re-dispose of the waste in a legal manner. Refer to 40 CFR 761.61(c) for the complete risk-based disposal requirements.

In some cases, the requirements under the self-implementing approach may serve as a good template for an application under the risk-based approach, but the applicant must show that all proposed variations from these requirements will not pose an unreasonable risk of injury to health or the environment. Some of the requirements under the self-implementing approach could be modified to accommodate an emergency cleanup under the risk-based approach more easily than others. EPA encourages emergency responders to contact EPA regional staff as they can provide assistance in developing a customized risk-based approach. The following are possible modifications of the requirements under the self-implementing approach that EPA may be able to approve through the risk-based approval process on a case-by-case basis, contingent upon a finding of no unreasonable risk:

- (a) variation of characterization and confirmatory sampling and use of field test kits;
- (b) extended storage time and temporary storage/holding/staging conditions;
- (c) allowing the use of temporary alternate on-site storage containers;
- (d) expedited notification and approval of cleanup plan changes;
- (e) prioritization of cleanup (triage) and postponement of decisions or actions on disposal;
- (f) expedition or rescission of the application/notification process; and
- (g) expedition of the approval process.

However, more significant modifications will likely entail a more rigorous analysis in order for EPA to make the required unreasonable risk finding.

It may take some time for EPA to complete the approval process for the risk-based approach, although in some cases the approval process can be significantly shortened by the utilization of pre-existing risk-assessments or risk-determinations that are applicable to the situation. To start the approval process as soon as possible, an emergency responder should

know who the appropriate EPA contact person is and have his or her contact information readily available before a natural disaster occurs. The authority to issue a site-specific risk-based approval has been delegated to the Regional Administrator of the EPA Region where the site is located if the approval is for a location within a single Region. The authority within the Region to grant this type of approval may be redelegated down to lower level officials; actual redelegation may vary among the Regions. If the cleanup and/or disposal activity will occur in more than one Region, then the authority to issue a risk-based approval resides with EPA Headquarters. EPA also recommends that the approval process is known and understood beforehand. Contact the appropriate EPA Regional Office (<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coordin.htm>) or EPA Headquarters (<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/contactus.htm>) for more information and assistance with the approval process. In addition, refer to the regulations for specific requirements regarding the risk-based approach.

Available Resources for Emergency Responders:

Table 2 below briefly summarizes the different PCB releases that could occur in a disaster scenario and the basic approaches for response, as derived from the regulations and applicable guidance and policy statements as described above. The EPA Region in which the release occurs can assist emergency responders with the decision of which approach better suits a particular site given its characteristics. The EPA Regional Office can work with emergency responders and the owner(s) of the PCB-containing electrical equipment to choose the most appropriate approach for cleaning up a PCB spill or other release and then assist in the implementation of that approach. Whichever approach is selected, EPA regional staff are available for answering questions and providing assistance to emergency responders during an emergency situation.

Table 2. TSCA’s basic PCB management approaches for different PCB releases.

If a Release Contaminates	In an Area	Then Consider the
Ground water (that is not a drinking water source), ¹ or Sediments in marine and freshwater ecosystems	About 20 feet in diameter or less	PCB Spill Cleanup Policy (40 CFR 761 subpart G); ² or Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).
	Larger than 20 feet in diameter	Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).
Surface waters, ³ or Sewers or sewage treatment systems, ³ or Any private or public drinking water sources or distribution systems, ³ or Animal grazing lands, ³ or Vegetable gardens ³	Of any size	Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).
All other areas ⁴	About 20 feet in diameter or less	PCB Spill Cleanup Policy (40 CFR 761 subpart G); ² or Self-implementing on-site cleanup and disposal of PCB remediation waste approach (40 CFR 761.61(a)); or Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).
	About one acre in size (a moderately sized site)	Self-implementing on-site cleanup and disposal of PCB remediation waste approach (40 CFR 761.61(a)); or Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).
	Of any other size	Performance-based disposal approach (40 CFR 761.61(b)); or Risk-based disposal approval approach (40 CFR 761.61(c)).

¹ Although certain spill situations, including PCB spills that pose a high degree of potential for ground water contamination, have not been excluded from the scope of the PCB Spill Cleanup Policy (40 CFR 761 subpart G), EPA may require additional cleanup for such spills if it finds, based on site-specific factors, that further cleanup is necessary to prevent unreasonable risk. See 40 CFR 761.120(b).

² The PCB Spill Cleanup Policy (40 CFR 761 subpart G) should only be applied to releases that are less than 72 hours old. For releases that occurred more than 72 hours ago, one of the other approaches should be applied.

³ The PCB Spill Cleanup Policy (40 CFR 761 subpart G) may be used to clean up these spill situations if EPA is notified and all other requirements are met, including that the release is less than 72 hours old.

⁴ Instead of being disposed of, certain PCB-contaminated materials may be decontaminated for reuse. See 40 CFR 761.79. NOTE: The self-implementing on-site cleanup and disposal of PCB remediation waste approach (40 CFR 761.61(a)), the performance-based disposal approach (40 CFR 761.61(b)), and the risk-based disposal approval approach (40 CFR 761.61(c)) apply to PCB remediation waste (defined in 40 CFR 761.3). The PCB Spill Cleanup Policy (40 CFR 761 subpart G) applies to the release of materials containing PCBs at concentrations of 50 ppm or greater.

Emergency responders and anyone else responsible for managing PCB-containing disaster debris in emergency situations may receive assistance from the state, local, or tribal government with jurisdiction over the spill or other environmental release. For example,

emergency responders should find out, if they do not already know, whether the local government has a disaster debris management plan, as it may contain valuable information about the PCBs in the community. A local government's disaster debris management plan consists of its procedures and guidelines for managing disaster debris. For example, with respect to PCB-containing disaster debris, it may include information on the PCB concentrations and locations of PCB-containing electrical equipment, staging and temporary storage areas, and TSCA-approved storage, treatment, and disposal facilities. The information on PCBs in a disaster debris management plan could help save time and resources during an emergency response. In addition, the state, local, or tribal government may already have contracts in place with PCB transporters and storage, treatment, and disposal facilities that may be available to emergency responders for the management of PCB-containing disaster debris, facilitating the response.

All PCB cleanup and disposal actions must be consistent with legal obligations and be carefully considered. Appendix C lists some helpful resources. It is important to keep documentation of the decisions and findings made, as well as actions taken in accordance with the regulations. For all EPA decisions and findings, the agency should document the basis for its decisions and findings and retain the records and supporting materials. Appropriate documentation may include e-mails, written correspondence, and phone call logs. The ultimate goal of all actions is the cleanup and disposal of PCB-containing disaster debris in a manner that will not pose an unreasonable risk of injury to human health or the environment.

Conclusion

While it is important and necessary to act quickly in an emergency situation caused by a natural disaster, it is also essential to comply with all applicable federal, state, local, and tribal requirements. It is important to plan and develop a comprehensive disaster debris management plan. A comprehensive disaster debris management plan is designed to assist emergency responders tasked with cleaning up PCB spills and other environmental releases and help ensure that personnel are familiar with applicable federal, state, local, and tribal requirements. In addition, by planning for natural disasters, the local government can identify opportunities to mitigate potential risks to the community from PCB spills or other environmental releases prior to any emergency situation. A disaster debris management plan should be developed in a way that would help facilitate the emergency response.

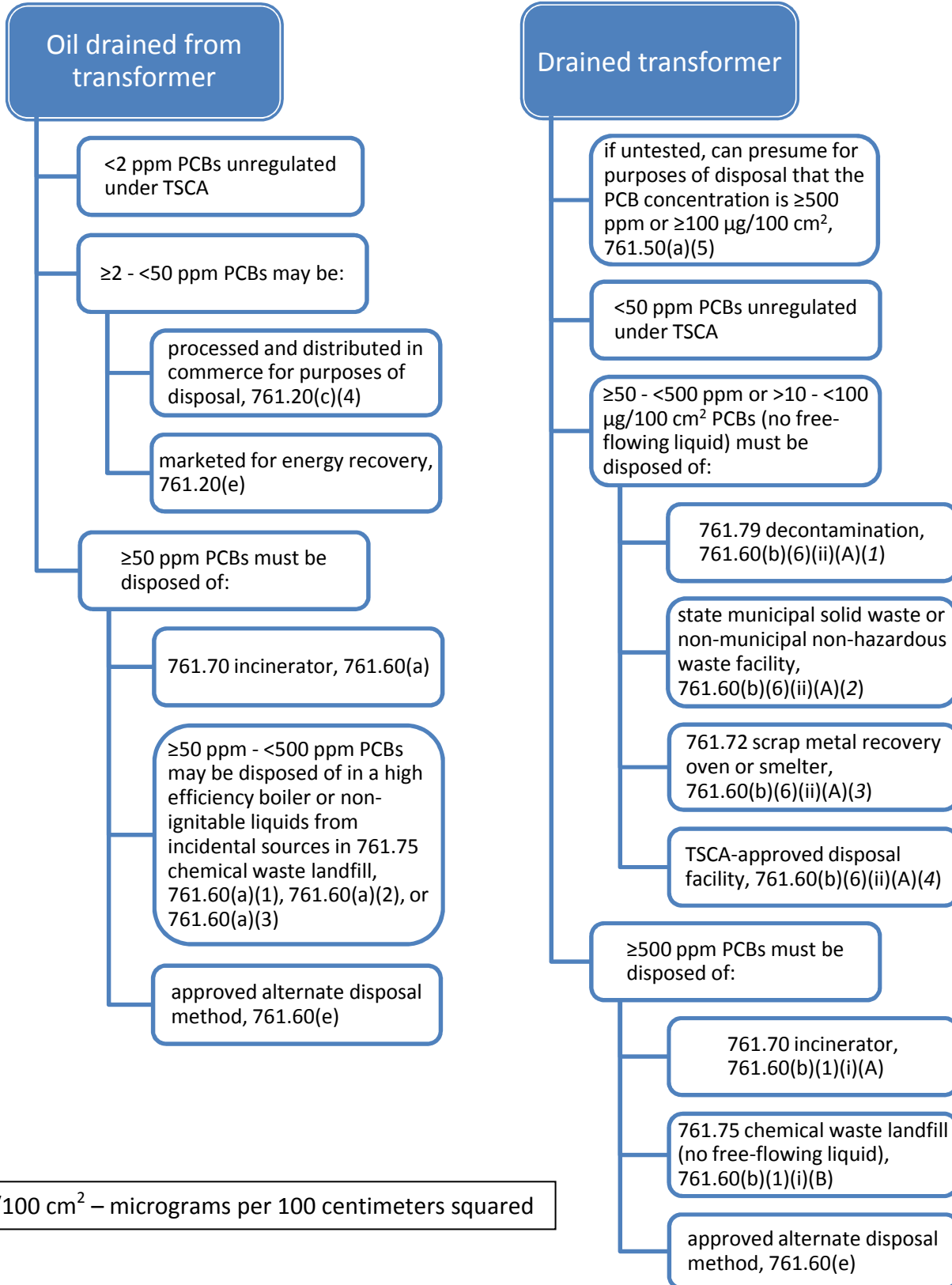
Furthermore, all planning activities for and responses to PCB spills or other environmental releases caused by natural disasters should fit within the framework established by the Department of Homeland Security's "National Incident Management System" and "National Response Framework." These documents can be found at <http://www.fema.gov/emergency/nims/index.shtm> and <http://www.fema.gov/emergency/nrf/mainindex.htm>, respectively. As noted, PCB planning and emergency management activities should be carried out in accordance with FEMA's "Public Assistance: Debris Management Guide (FEMA 325)" and EPA's "Planning for Natural Disaster Debris Guidance." Acting within the frameworks established by these documents will help ensure that the management of PCB-containing disaster debris in emergency situations caused by

natural disasters is coordinated with other response activities and does not pose an unreasonable risk of injury to health or the environment.

Appendix A: Diagrams on Managing PCB-Containing Disaster Debris

These quick reference diagrams are intended to help emergency responders manage PCB-containing disaster debris by outlining applicable sections of the PCB regulations. The disposal of transformers, the disposal requirements of 40 CFR 761.60, site cleanup under the self-implementing approach of 40 CFR 761.61(a), and PCB cleanup under the performance-based disposal approach of 40 CFR 761.61(b) are described below. The diagrams only summarize these regulations; refer to the regulations for the complete requirements.

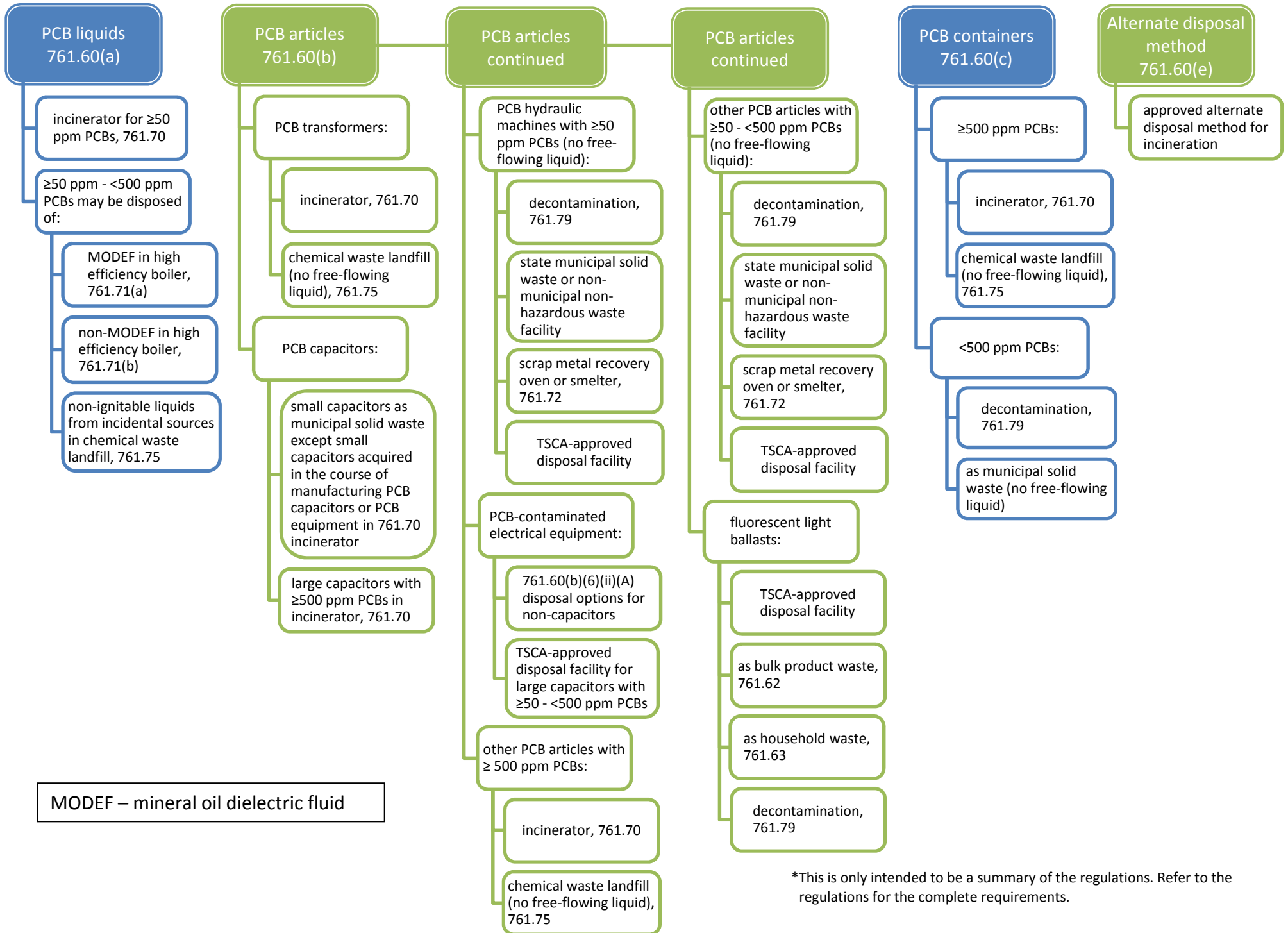
Disposal of Transformers*



$\mu\text{g}/100\text{ cm}^2$ – micrograms per 100 centimeters squared

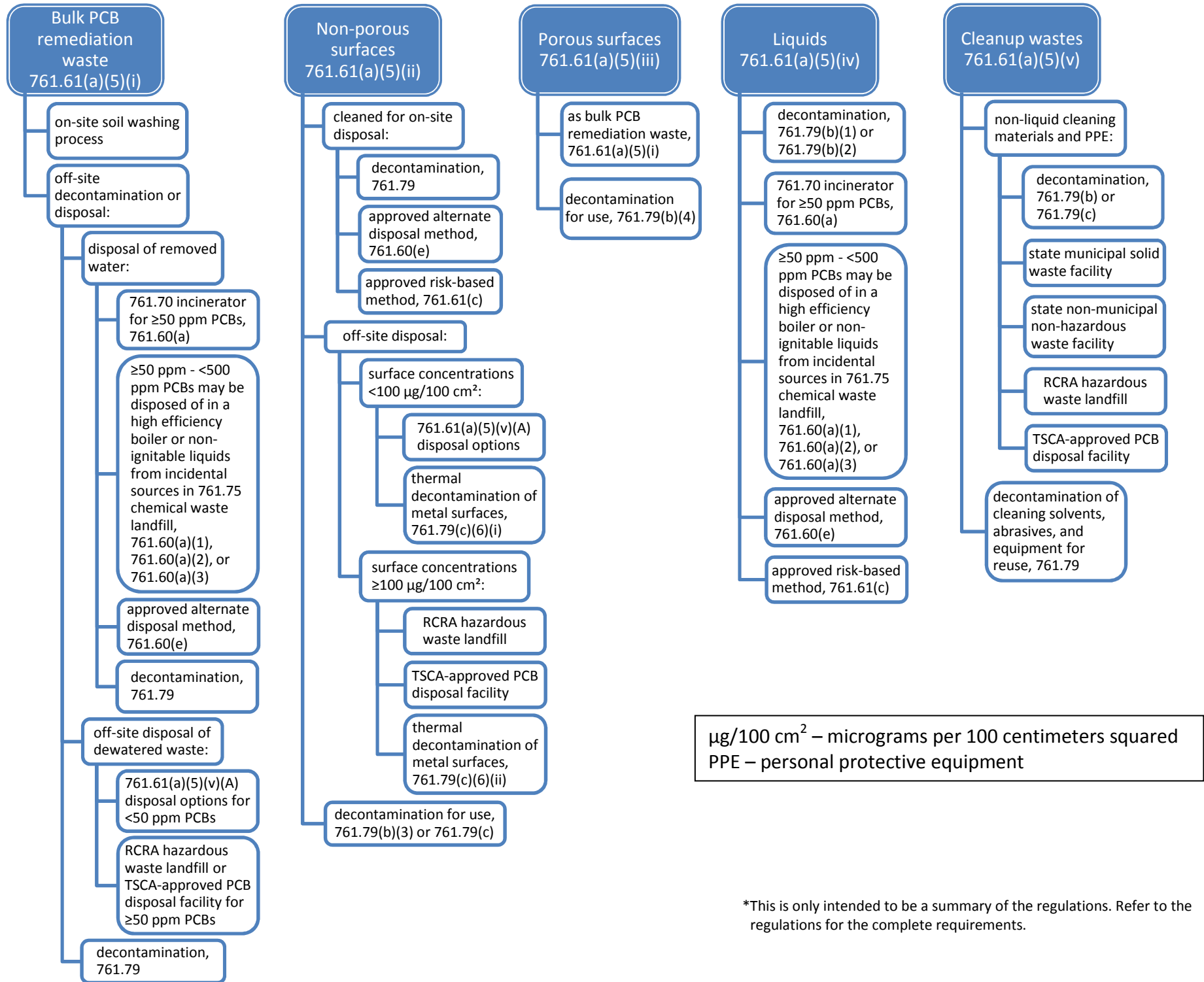
*This is only intended to be a summary of the regulations. Refer to the regulations for the complete requirements.

Disposal Requirements, 40 CFR 761.60*



*This is only intended to be a summary of the regulations. Refer to the regulations for the complete requirements.

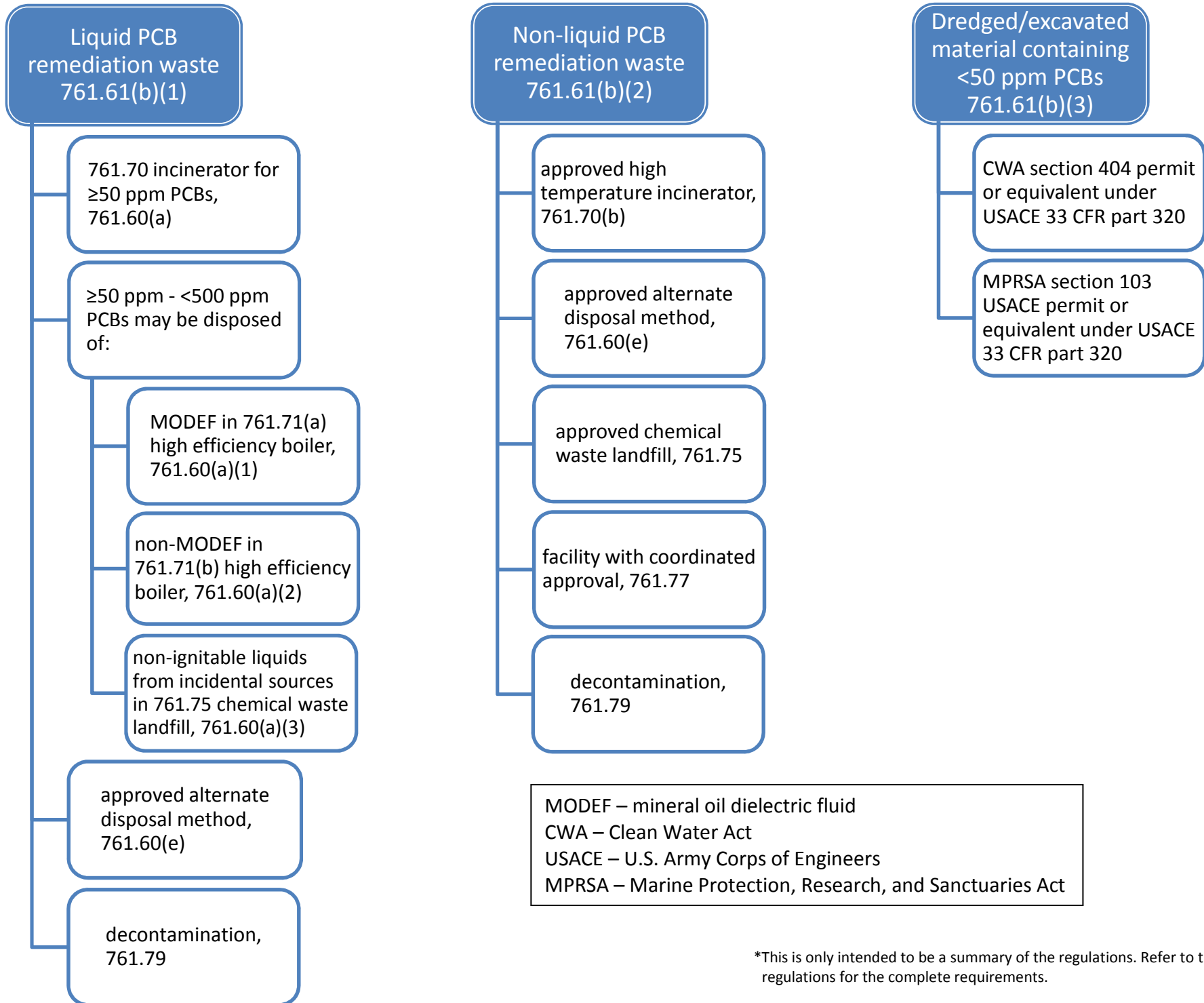
Site Cleanup under the Self-implementing Approach, 40 CFR 761.61(a)*



µg/100 cm² – micrograms per 100 centimeters squared
 PPE – personal protective equipment

*This is only intended to be a summary of the regulations. Refer to the regulations for the complete requirements.

PCB Cleanup under the Performance-based Disposal Approach, 40 CFR 761.61(b)*



*This is only intended to be a summary of the regulations. Refer to the regulations for the complete requirements.

Appendix B: Other Applicable Federal Laws and Regulations

In addition to the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act may apply to or provide cleanup authority to address PCB cleanup and disposal. Below is a brief and general description of how these statutes and their regulations may apply to the management of PCB-containing disaster debris in emergency situations.

Resource Conservation and Recovery Act (RCRA):

The management of PCBs continues to be regulated under TSCA even when RCRA also applies. The RCRA Subtitle C hazardous waste regulations apply to the management of PCB wastes that are listed or characteristic hazardous wastes, as well as to hazardous waste and hazardous constituents (which may include PCBs) released from solid waste management units at RCRA treatment, storage, and disposal facilities (TSDFs). In addition, RCRA Subtitle D minimum national criteria generally apply to facilities and practices for disposing of solid waste that contains PCBs but is not otherwise subject to the hazardous waste regulations. It is important to note that the TSCA PCB regulations, which are usually more prescriptive than their RCRA counterparts for cleanup, management, and disposal of PCB wastes, still apply with full force and effect to PCB wastes that could be classified as RCRA hazardous or non-hazardous wastes.

For PCB wastes to be RCRA hazardous wastes subject to the Subtitle C regulations governing generators, transporters, and owners and operators of TSDFs, they would have to be listed on one of four hazardous waste lists or exhibit one or more characteristics of hazardous waste (i.e., ignitability, corrosivity, reactivity, or toxicity) (40 CFR 261.21-261.24). PCBs are not specifically listed on the F- (40 CFR 261.31), K- (40 CFR 261.32), and P- and U- (40 CFR 261.33) lists; however, PCBs may be present as a contaminant in wastes that are themselves listed as hazardous. In this case, the entire waste stream, including the PCBs, would be regulated as listed hazardous waste, as well as TSCA PCB waste.

Similarly, although PCBs are not included on the list of contaminants that could cause a waste to exhibit the toxicity characteristic (see 40 CFR 261.24), another contaminant in the PCB-contaminated waste could exhibit the toxicity characteristic. In order to avoid dual TSCA/RCRA regulation, specified PCB-contaminated wastes that exhibit the toxicity characteristic and are regulated under TSCA are explicitly exempted from RCRA requirements. Specifically, section 261.8 exempts from the RCRA Subtitle C hazardous waste regulations the disposal of PCB-containing dielectric fluid and the electric equipment which holds such fluid if they satisfy two criteria: 1) these PCB-containing materials must be authorized for use and regulated under the TSCA standards of 40 CFR Part 761; and 2) the PCB-containing materials only exhibit the toxicity characteristic for an organic constituent (waste codes D018-43). If the PCB wastes do not fall within the terms of this exception, those wastes are subject to all applicable RCRA Subtitle C hazardous waste regulations and TSCA PCB regulations.

As for the ignitability, corrosivity, and reactivity characteristics (40 CFR 261.21-261.23), a PCB waste could exhibit these characteristics and thus be subject to the RCRA Subtitle C hazardous waste regulations and also the TSCA PCB regulations.

RCRA corrective action obligations also apply to releases of hazardous wastes or constituents from solid waste management units at RCRA TSDFs. Hazardous constituents are listed in Appendix VIII of Part 261. PCBs are identified as a hazardous constituent in Appendix VIII, and their release from a solid waste management unit triggers RCRA corrective action obligations, including the requirement for facility-wide corrective action under RCRA 3004(u). Certain RCRA Subtitle D facilities also are subject to corrective action regulations contained in the Subtitle D minimum criteria.

Finally, various other RCRA authorities apply to PCB wastes. PCB wastes that are hazardous wastes under the RCRA statutory definition (see RCRA section 1004), even if they are not subject to the RCRA Subtitle C regulations, are subject to the information gathering authority under RCRA section 3007 and the monitoring and testing authority under RCRA section 3013. PCB solid or hazardous wastes as defined in RCRA section 1004 also are subject to the “endangerment” provisions of RCRA section 7003. This provision allows the Administrator to bring a court action or to take other actions, including issuing orders as may be necessary to protect public health or the environment, where the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste may present an imminent or substantial endangerment to health or the environment. Application of these authorities, however, does not exempt the materials from the requirements of TSCA.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

TSCA requirements for cleanup and disposal of PCBs may be applicable or relevant and appropriate requirements (ARARs) for CERCLA cleanup actions. In meeting ARARs, CERCLA does allow for some limited flexibility in certain circumstances. For example, when PCBs are cleaned up and disposed of as part of a removal action pursuant to CERCLA,¹ the on-site portion of the response must meet ARARs to the extent practicable considering the exigencies of the situation. See 40 CFR 300.415(j). In determining whether compliance with ARARs is practicable for removal actions, appropriate factors may be considered, including: “(1) the urgency of the situation; and (2) the scope of the removal action to be conducted.” See 40 CFR 300.415(j). The ARAR waivers provided in CERCLA section 121(d) and repeated in the National Contingency Plan (NCP) may be available for response actions (i.e., removal and remedial actions) in appropriate circumstances. See 40 CFR 300.415(j) and 300.430(f)(1)(ii)(C). The Superfund program has published guidance on ARARs and ARAR waivers.

CERCLA waste that is transferred off-site is governed by CERCLA section 121(d) and the off-site rule. See 40 CFR 300.440. There is some flexibility in the off-site rule for

¹ Many hazardous waste sites across the country have been cleaned up under CERCLA authority. Many of these sites contained PCBs. Cleanup information on PCB-contaminated sites is available in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database, which can be accessed at <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>. CERCLIS may be a valuable source of information for larger PCB releases.

emergency removal actions: “[W]here the release poses an immediate and significant threat to human health and the environment, the On-Scene Coordinator (OSC) may determine that it is necessary to transfer CERCLA waste off-site without following the requirements of this section.” See 40 CFR 300.440(a)(2).

State, Local, and Tribal Requirements:

Certain state, local, and tribal requirements may also apply. It is important to check with each individual state, local, and/or tribal government. State, local, and tribal contact information may be available from the appropriate EPA Regional Office.

Appendix C: Resources

1. EPA's PCBs website: <http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>
2. EPA's Regional PCB Contacts:
<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coordin.htm>
3. PCB Question and Answer Manual:
<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#QandA>
4. Verification of PCB Spill Cleanup by Sampling and Analysis document:
<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#Verification>
5. Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup:
<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#GridSampling>
6. Wipe Sampling and Double Wash/Rinse Cleanup as Recommended By the Environmental Protection Agency PCB Spill Cleanup Policy:
<http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/guidance.htm#Wipe>
7. EPA's Disaster Debris website:
<http://www.epa.gov/epawaste/conserves/rrr/imr/cdm/debris.htm>
8. EPA's Planning for Natural Disaster Debris Guidance:
<http://www.epa.gov/epawaste/conserves/rrr/imr/cdm/pubs/pnodd.pdf>
9. EPA's Office of Emergency Management website: <http://www.epa.gov/emergencies>
10. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database:
<http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
11. FEMA's Public Assistance: Debris Management Guide (FEMA 325):
<http://www.fema.gov/government/grant/pa/demagde.shtm>
12. TSCA's PCB Regulations: <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/laws.htm>
13. Department of Homeland Security's National Response Framework:
<http://www.fema.gov/emergency/nrf/mainindex.htm>