PCB FACILITY APPROVAL STREAMLINING TOOLBOX

A Framework for Streamlining PCB Site Cleanup Approvals

Lean Transference Package

EPA530-F-17-002

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PCB FAST

Foreword

This Toolbox was written in response to recommendations developed during an EPA Region 9 Lean Six Sigma event held in October 2014. The event was conducted to evaluate Region 9's process for approving PCB cleanup plans and recommend changes to improve the quality of applications, thereby reducing the time it takes to cleanup PCB contaminated sites. The event was focused only on the approval of PCB cleanup plans and did not address other aspects of TSCA or the PCB regulations. Participants in the event included EPA personnel involved in the PCB cleanup program from EPA Regions 5, 7, and 9, as well as Headquarters personnel involved in PCB cleanups and PCB use. In addition, a number of consultants and property owners participated.

The event resulted in over 25 specific recommendations that fit into two categories: (1) Internal EPA process changes, and (2) Tools to help the regulated community prepare cleanup plans.

Sections I and II of this document lay out a collaborative process between EPA and the Responsible Party (RP) that encourages early communication, facilitates agreement upon site goals and objectives, and encourages elevation of issues and concerns. Section IV contains the metrics that Region 9 is using to evaluate the performance its PCB Cleanup program. Site specific milestones are addressed in Tool 2. Tool 2 recommends that EPA and RPs develop site specific milestones since each PCB cleanup project is different.

The remaining sections and the tools in Appendix A provide supportive information that RPs can use to assist in the preparation of cleanup notifications (self-implementing cleanups under 761.61(a)) or cleanup applications (risk-based cleanups under 761.61(c)). Additional tools relating to sampling, site characterization, land use controls, cleanup levels, and greener cleanups may be added at a later date to this document as a supplement.

The process improvements, measures, and tools in this document are available to be used for PCB cleanups in all 10 EPA Regions. The resources in this document can be customized to meet each site or Region's needs. It is recognized that existing Regional processes and tools may be sufficient for many sites. However, collaboration activities and tools from this document may be appropriate at other sites. Regions are encouraged to use the processes and tools in the PCB FAST document as appropriate to accelerate the pace of PCB cleanups.

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Acronyms and Abbreviations

CFR	Code of Federal Regulation
CSM	Conceptual Site Model
DQO	Data Quality Objective
EPA	U.S. Environmental Protection Agency
FAST	Facility Approval Streamlining Toolbox
LUC	Land Use Control
MCL	Maximum Contaminant Level
PCB	Polychlorinated Biphenyl
PM	Project Manager
POC	Point of Contact
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RfCs	Reference concentration
RfDs	Reference dose
RP	Responsible Party conducting the PCB Cleanup
RSL	Regional Screening Levels
TSCA	Toxic Substances Control Act

Disclaimer

The Polychlorinated Biphenyl Facility Approval Streamlining Toolbox (PCB FAST) contains information and tools (e.g., guidelines) related to and focused on the cleanup of PCBs for use by EPA staff and Responsible Parties (RPs). This document is intended to be used as an informal reference, and as such, is not a complete statement of all of the applicable PCB requirements. This document does not replace nor supplant the requirements of the Toxic Substances Control Act (TSCA) PCB regulations. Please refer to the PCB regulations at 40 CFR Part 761 for specific regulatory and legal requirements. Also, as indicated by the use of non-mandatory language such as "guidance, "may," "should," and "can," these materials identify policies and provide suggestions and do not create any new legal obligations or limit or expand obligations under any federal, state, tribal, or local law.

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PCB Facility Approval Streamlining Toolbox

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SECTION I: Introduction and Overview

Introduction to PCB Facility Approval Streamlining Toolbox

The PCB Facility Approval Streamlining Toolbox (PCB FAST) is designed to help Responsible Parties (RPs) and regulators reduce delays, improve communication, and increase efficiency in the cleanup and disposal of PCBs at a site. PCB FAST focuses on establishing a collaborative working relationship between EPA and the RPs and providing tools to be used by RPs to prepare adequate and appropriate cleanup notifications and applications.[1] The Toolbox includes guidance, process flow maps, and checklists to facilitate streamlined cleanup processes. These resources can be customized to meet each site or Region's needs.

PCB FAST provides a number of tools that will help PCB cleanup projects move faster. The toolbox explains the collaborative process and then provides tools in an appendix. Generally, the document is organized as follows:

- Section I – Introduction and Overview
- Section II – PCB Sites Cleanup Framework
- Section III – PCB Remediation Waste Cleanup
- Section IV – Metrics for Measuring Performance of the PCB Cleanup Approach
- Section V – Conclusion
- Appendix A – PCB Facility Approval Streamlining Tools

The PCB FAST process is centered on early and frequent collaboration between EPA and the RP to reduce processing time and develop quality PCB cleanup notifications and applications. The "PCB Sites Cleanup Framework" (Framework) in Tool 2 of Appendix A, provides an outline for discussing and agreeing upon the project scope. The Framework will help you:

- Reach an **upfront agreement** on a project plan *before* application or notification submittal
- Incorporate **routine communication** early and often, reducing the time needed for review
- **Complete site characterization** *before* submitting a cleanup application or notification, to avoid a formal amendment delay
- **Avoid re-do loops** through the principle of "done right the first time"
- **Strengthen relationships** with state partners and the regulated community

The PCB FAST process recognizes that management involvement early in the process and at certain milestones is necessary to keep projects moving. A key element of the Framework is the upfront identification of senior and middle level managers from both EPA and the RP responsible for resolving issues. Quick issue elevation and resolution are key to keeping a project on schedule.

[1] The principles and tools of PCB FAST are intended to be helpful for both Self Implementing Notifications under 40 CFR 761.61(a) and Risk Based Applications under 40 CFR 761.61(c).

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Background

In October 2014, the EPA Region 9 Land Division conducted a Lean Six Sigma event to identify potential process improvements for the PCB cleanup program. The event team developed a list of potential actions to reduce the time and effort required to approve and facilitate PCB cleanups in the Region. Before the event, it took Region 9 an average of 80 days to review and approve an initial PCB Cleanup Plan. Amendments to the cleanup plan generally took another 56 days to approve.

During the Lean event, participants developed over 25 separate recommendations in the following two categories:

1. Internal EPA process improvements, including guiding principles
2. External tools to improve the quality of cleanup applications and notifications

Calculated Savings from PCB Sites Cleanup Improvements in Region 9

The PCB Sites Cleanup Framework has the potential to yield the following savings:

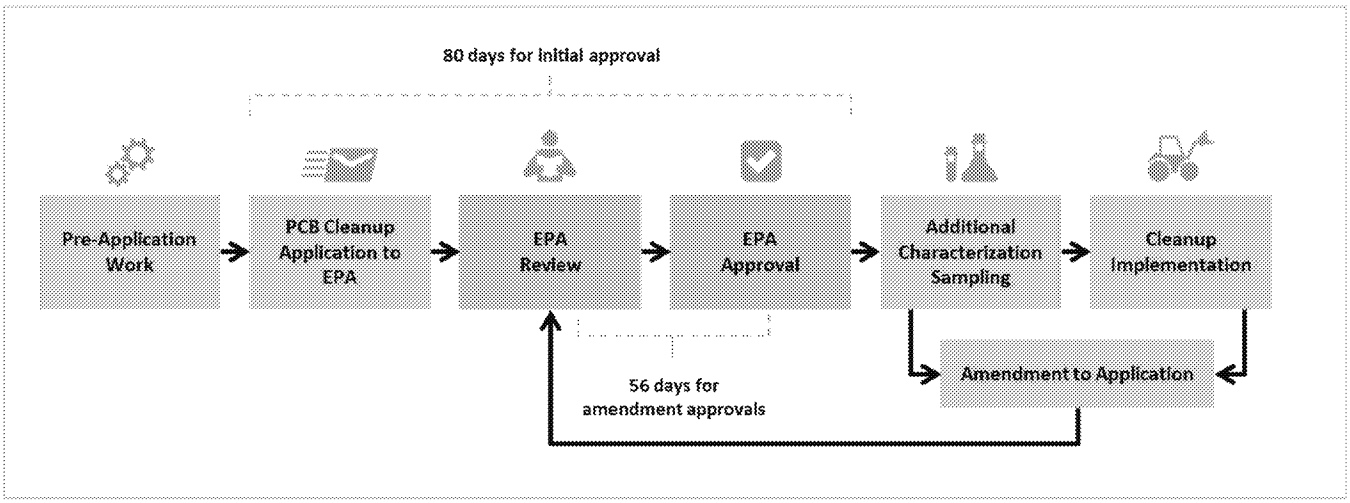
- Reduce the time for cleanup plan application approval from 80 days to 64 days (20% reduction) on average.

The Region 9 PCB Lean team expects that implementation of these process improvements may result in a minimum 20 percent reduction in the time that it takes from cleanup plan application submittal to approval. This should result in a reduction in the average application processing time to 64 days.

Previous Approach

Prior to the Lean Six Sigma event, Region 9 reactively responded to applications and notifications submitted by RPs. Applications under 761.61(c) and notifications under 761.61(a) were prepared without input by the Region and submitted for comment and approval. Nearly all of these applications and notifications were inadequate in some form. A summary of the previous approach to applications is illustrated in Figure 1 below.

Figure 1: Region 9 Previous Approach



To address the inadequacy of the applications, EPA Region 9 Project Managers (PMs) would typically review cleanup applications, then create a "Conditional Approval." The Conditional Approval stipulates conditions under which the application is approved (including conditions to ensure compliance with regulatory requirements, to clarify ambiguity, or to document decisions made during discussions between EPA and the RP).

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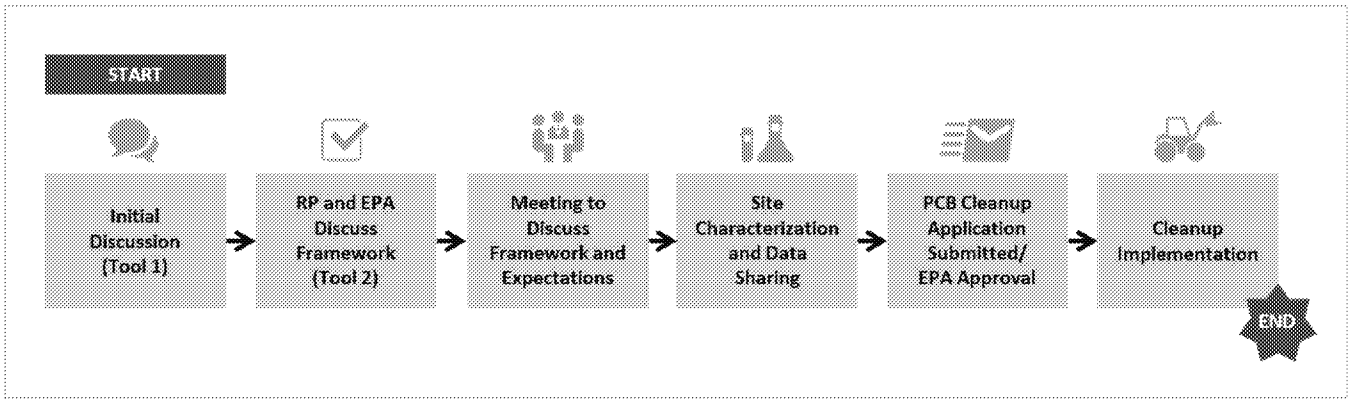
This approval process was established to reduce the time and effort associated with a more traditional iterative process, in which EPA would issue comments and the RP would issue multiple versions of an application until all of EPA's concerns were addressed.

Improved Process

The improved process focuses on early collaboration in project planning and site investigation, in order to reduce the review cycle and minimize the number of amendments when possible. The key improvements in the PCB FAST process are the "PCB Sites Cleanup Framework" (Framework) (Tool 2 – Appendix A) and informal data collection prior to formal application or notification submittal.[2] These two improvements should result in a faster PCB cleanup.

Figure 2: Region 9 New Process



Initial Discussion

The new process established in this toolbox is more collaborative and involves EPA earlier in the process. As early as the RP deems appropriate, EPA should be involved in order to avoid unnecessary, unexpected, and duplicative work. Tool 1 in Appendix A is a checklist to help RPs prepare for the initial discussion. The checklist identifies the information of interest to EPA. RPs do not need to have all of the information prior to contacting EPA, as EPA recognizes that certain information may not be known early in the process. EPA PMs and RPs should discuss cleanup sites in advance and reach agreement on the path forward as soon as possible

Project Framework Meeting

The purpose of the Framework meeting is to summarize and memorialize key agreements and understandings about the cleanup project between the RP and EPA as well as any external stakeholders. Agreement on issues related to the cleanup should be documented and a schedule of deliverables for EPA review should be established. A key deliverable from the Framework meeting is a PCB Cleanup Framework document (See Tool 2 in Appendix A), that is acknowledged by both parties but not signed.

The EPA PM will schedule and invite all parties involved with the cleanup to the Framework meeting. The RP's representatives should have the authority to make decisions at meetings with EPA. It is assumed that the RP's consultants will include technical staff for support on matters associated with the cleanup such as: sample collection, statistics, risk assessment, and data interpretation.

[2] PCB FAST encourages responsible parties to work with EPA early in the process regardless of the regulatory cleanup approach.

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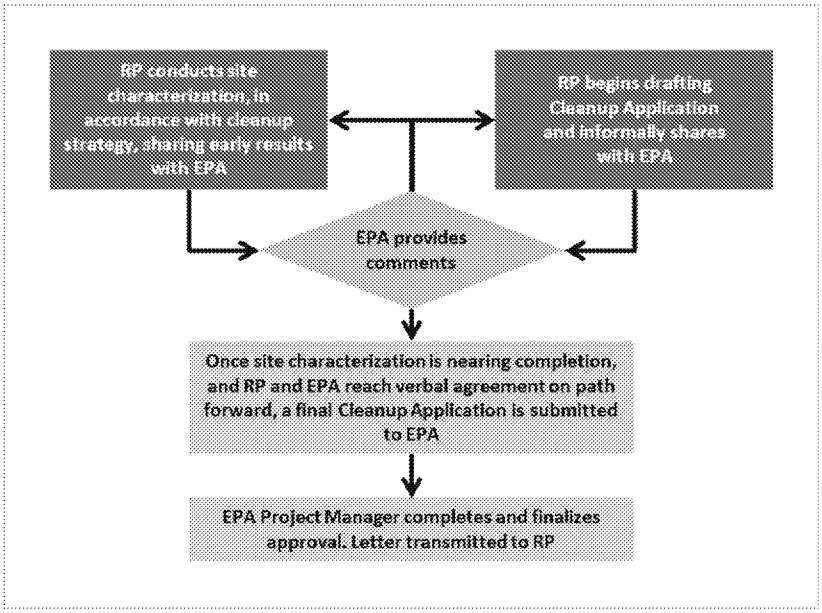
Please refer to Tool 2 discussing the Framework document when planning the meeting. Tools 1 and 2 should be reviewed by all parties before the Framework meeting takes place, and can be used to guide discussions at the meeting. The Framework document will not be signed. The overall intent of the Framework document is to ensure that all parties understand the project, and are aware of all deliverables, due dates, and cleanup levels. An important aspect of the Framework document is the identification of management officials to whom issues can be raised. The purpose of identifying management officials is to allow and encourage quick elevation and resolution of controversial issues.

Data Sharing

Data sharing with EPA prior to submitting a cleanup notification or application is key to streamlining the EPA review and approval process. With the old process, environmental data were collected by the RP in advance of discussion with EPA and used in the notification or application. Often the data were inadequate for an approval, which resulted in additional sampling and delay. In the PCB FAST process, the RP and EPA PM agree on full site characterization before the notification or application is submitted. Once the RP and the EPA PM are satisfied that the site has been fully characterized, the RP will submit the notification or application.

Figure 3: Application and Approval Process



PCB Cleanup Notification or Application

The notification or application is the cleanup plan formally submitted to EPA. The requirements for notifications are in 40 CFR 761.61(a) and the requirements for applications are in 40 CFR 761.61(c) (Refer to Section III of this document, "PCB Remediation Waste Cleanup," for more details). Regardless of the regulatory cleanup process, PCB FAST encourages RPs to collaborate with EPA early in the process. Early engagement is encouraged to avoid unnecessary sampling, duplication of effort, and misunderstandings. Tools 3 and 4 in

Application: Things to Consider

- If you are unsure about which regulatory option to use, contact the Regional PCB Coordinator. Visit www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs#pcb for a list of Regional PCB Coordinators.
- Be specific about your plans; but, when possible, write the application to account for contingencies, even when not expected.
- Do not reference specific products by name. Use generic terms in case name brand is not available.
- Combined 761.61(a) Notification and 761.61(c) Applications may be applicable where prescriptive characterization may not be necessary (See Section III). Please contact your PCB Coordinator if you are not sure about which option to use.
- Land Use Controls may be necessary when cleanup does not achieve unrestricted land use levels.

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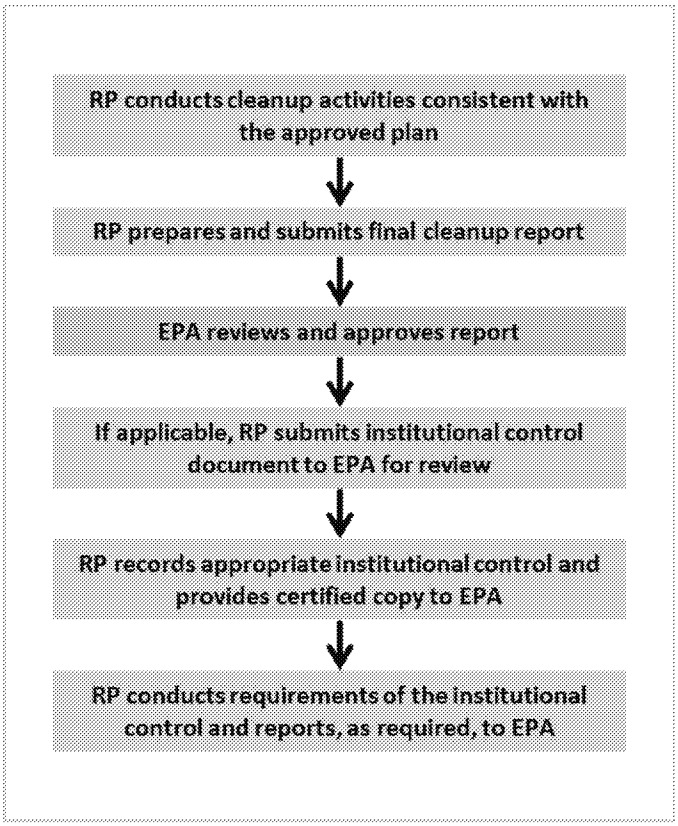
Appendix A provide checklists that may be used as a guide to preparing the notification or application. Figure 3 summarizes the cleanup plan approval process for an application.[3]

The application or notification should summarize all the sampling data that substantiates any claims that the lateral and vertical extent of PCB contamination has been fully characterized. For an application, EPA will need this information in order to make a no unreasonable risk determination in its approval.

Cleanup Plan Implementation

For risk-based cleanup and disposal applications, the RP may implement the plan only after it is approved by EPA. For self-implementing notifications, the RP may implement the plan if EPA has not commented within 30 days as long as the plan complies with the requirements of 761.61(a). EPA encourages RPs to stay in contact with the EPA Project Manager during the implementation phase. Situations may arise during implementation where the EPA Project Manager may need to decide if the situation necessitates an amendment to the approval or if the approval is broad enough to encompass the situation. In some cases, clarification of the approval may be sufficient. Figure 4 summarizes the implementation and reporting process.

Figure 4: Cleanup Implementation and Reporting



[3] Although the flow diagram is for an approval of a cleanup Application, this same general process may be used for a Notification.

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SECTION II: PCB Sites Cleanup Framework

Overview of PCB Sites Cleanup Framework

The PCB Sites Cleanup Framework (Framework) documents a process of collaboration to ensure that project managers from EPA and the RPs are in alignment with the goals and objectives of the project, including schedules. The Framework also identifies points of contact for when issues need to be elevated. The previous PCB cleanup process generally involved RPs independently generating and submitting cleanup plans to EPA for review. This process may be adequate for a simple and straightforward project; however, for large sites with technical complexity, the previous process often resulted in lengthy EPA review and numerous comments. For those complex sites, it may be better to utilize the tools and process associated with the Framework (Tool 2). Tool 2 is a template that can be modified to fit site specific situations, at sites (complex and less complex) for which risk-based approvals are sought and at sites using the notification process. There are several key improvements to the existing PCB sites approval process included in the Framework that are designed to save time, simplify the process, and avoid or resolve potential issues.

- **Mutual Agreement Prior to Cleanup Notification or Application Submission:** The PCB Sites Cleanup Framework shifts critical discussions to the front of the process, so that EPA PMs and RPs communicate and reach agreement as early as possible.
- **Site Characterization before Notification or Application Submittal:** By completing site characterization prior to the submittal of the cleanup application or notification, the RP ensures that the application or notification will be as complete and concise as possible when it is submitted to EPA.
- **Early and Routine Communication:** From the initial project Framework meeting through data-sharing and the cleanup plan submittal, PMs and RPs engage in frequent and open communication to reduce misunderstanding and strengthen relationships.
- **Encourage Issue Resolution through Elevation**: The Framework acknowledges that some issues will need to be elevated to reach resolution and that elevating an issue is not a sign of failure. The Framework encourages elevation of issues in order to keep the cleanup project from stalling.

The PCB Sites Cleanup Framework and the tools in this toolbox are intended to assist EPA and the RPs reduce the time of PCB Cleanups. Modification of the PCB FAST process and tools is encouraged to meet site specific needs.

PCB Sites Cleanup Framework Guiding Principles

The EPA Region 9 PCB Lean team developed the following principles that should improve communication and efficiency in the PCB site cleanup process:

- Early, regular, and open communication
- Focus on end use of property
- Faster decision making through the use of field data and observations
- Green the cleanup

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Early, Regular, and Open Communication

It is important for the EPA PM and the RP manager to communicate regularly on all aspects of the project. Regular communication helps avoid any miscommunication and misunderstandings about project goals, expectations, and outcomes. All technical and regulatory issues, and potentially controversial issues, should be discussed prior to application or notification submittal to circumvent delays during the formal review process. This ensures there will not be any surprises during the formal application or notification review.

As soon as an inquiry on a potential PCB cleanup is received, EPA PMs should initiate communication with the property owner and/or consultant (collectively, the RP). During initial discussions with the RP, the EPA PM should establish expectations for the cleanup process and obtain key project information, such as: site history, characterization information, proposed redevelopment plans, and schedule, if any. To help guide this discussion, please see Tool 1.

Focus on the End Use of the Property

The decisions regarding adequacy of characterization and cleanup goals should be based on the proposed end use of the property and the existing or proposed zoning. For example, if future property and land use will be industrial, cleanup goals should be set appropriately for such use. Furthermore, cleanup strategies should consider all options within the regulatory framework that can meet risk-based goals for the anticipated future use. For self-implementing cleanups (notifications), 40 CFR 761.61(a)(8) addresses deed notices for caps, fences and low occupancy areas. Many states currently have environmental covenant laws allowing for the state to put deed restrictions on property. Where applicable and acceptable, capping of contamination in order to prevent exposures may be acceptable provided a land use restriction is recorded on the deed. When a restrictive covenant is not practical, EPA may determine that making such restriction a condition of the approval may be an acceptable alternative.

Faster Decision Making through the use of Field Data and Observations

EPA PMs can expedite PCB cleanup decisions through the use of field data and observations. The project manager should evaluate the site history and existing PCB environmental data for the site to determine if there are data gaps that need to be filled. Data gaps may include different contaminated media, such as storm drain sediment that should be evaluated and removed if needed, off-site soil characterization, and (rarely) groundwater characterization. Data gap evaluation should be focused on the proposed land use. For example, a proposed residential redevelopment would have a higher standard of characterization than a large commercial building that would completely cover the site.

Where possible, EPA should review sampling data as they become available to inform early remedy decision making, rather than waiting for final data reports. Decisions on step-out sampling and soil removal actions may be guided by laboratory analytical results before data reports are submitted by the RP. Field screening tests may be used when conducting interim sampling during PCB remediation waste cleanup to determine when to sample to verify that cleanup is complete. However, field screening tests may be unreliable and remedial decisions need to be based on actual laboratory analytical data.

The RP should complete most or all site characterization sampling and resolve data gaps in coordination with the EPA PM before the formal application or notification is submitted. The RP and EPA should use the Framework Meeting to agree upon a schedule for submitting the application or notification.

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Green the Cleanup

"Greener Cleanups" refers to steps taken to reduce the environmental footprint of site cleanups. This includes measures such as improving energy efficiency, reducing air emissions, and conserving water during the cleanup process. Many Greener Cleanups practices are common sense and can typically be incorporated into PCB cleanups.

Greener Cleanups can use "presumptive practices" that should be considered at all cleanup sites and can be applied at any size cleanup. One of the practices which will be especially pertinent at PCB sites involving soil excavation is using clean diesel fuels and technologies for on-site equipment and transport vehicles. Resources (such as fact sheets and outreach materials) are available to support RPs in applying these practices at their sites and EPA PMs. These resources can be incorporated into early discussions between the RPs and the EPA PMs.

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SECTION III: PCB Remediation Waste Cleanup

Introduction

40 CFR 761 establishes requirements for use, marketing, distribution in commerce, cleanup, disposal, storage, transportation, marking, and labeling of PCBs. The cleanup and disposal requirements for PCB remediation wastes (e.g., soils contaminated with PCBs), as defined in 40 CFR 761.3,[1] are contained in 40 CFR 761.61. This section of the PCB regulations covers cleanup of spills, releases, and unauthorized disposal of PCBs from TSCA-regulated and unauthorized PCB sources.

Options for site cleanup and disposal of PCB remediation waste include "self-implementing on-site cleanup and disposal of PCB remediation waste" (40 CFR 761.61(a)) and application for a "risk-based disposal approval" (761.61(c)). 40 CFR 761.61(a) requires submission of a notification (Notification); and 40 CFR 761.61(c) requires submission of a risk-based disposal application (Application). 40 CFR 761.61 also contains the "performance-based disposal" option for PCB remediation waste in761.61(b). However, "[s]ection 761.61(b) only addresses disposal of waste.[2]"

Appendix A contains Tools 3 and 4 which will help ensure the completeness and technical quality of Notifications and Applications (collectively, Cleanup Documents). Responsible parties (RPs) may use the checklist for Self-Implementing Notifications and checklist for Risk-Based Disposal Application included in Tools 3 and 4, respectively, as guidelines when preparing Cleanup Documents for EPA approval.[3] These checklists describe information that 40 CFR 761.61(a)(3) requires and information that EPA recommends be included in all Cleanup Documents.

A future standalone supplement to PCB FAST will contain additional tools for use as references for Tools 3 and 4 in Appendix A. The additional tools will also include information that EPA may recommended be considered by the RP when preparing the Cleanup Documents.

PCB Cleanup Tools	Appendix A, Tool Title
Tool 3	TSCA Self-Implementing PCB Cleanups Checklist – 61(a)
Tool 4	TSCA Risk-Based PCB Cleanups Checklist – 61(c)

The sections below cover the definition of PCB remediation waste; a description and comparison of cleanup options for PCB remediation wastes under 40 CFR 761.61; the applicability of 40 CFR 761.61 to PCB releases; descriptions of temporary emergency procedures and cleanup options and related checklists; the protection of surface waters; and a brief introduction to greener cleanups. This general information is included to help RPs determine if PCB remediation waste is present at a site; and, if present, decide on a site-specific basis which cleanup option to use.

[1] PCB remediation waste means waste containing PCBs as a result of a spill, release, or other unauthorized disposal of PCBs. However, see the full definition at 40 CFR 761.3.
[2] EPA June 2014 PCB Q/A Manual, page 91, Q/A#2 under 40 CFR 761.61(b) "Performance-based disposal" and Fed. Reg. 35384, 35410 (June 29, 1998)
[3] The checklists do not cover the cleanup of PCB releases conducted under 40 CFR 761, Subpart G, which addresses releases that are less than 72 hours old.

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Definition of PCB Remediation Waste

The cleanup provisions in 40 CFR 761.61 apply only to PCB remediation wastes as defined in 40 CFR 761.3. For purposes of cleanup and disposal under 40 CFR 761.61, PCB remediation waste is divided into four general waste types: bulk PCB remediation wastes; non-porous surfaces; porous surfaces; and liquid PCB remediation wastes. 761.61 also provides decontamination or disposal options for cleanup wastes (e.g., wastes generated during cleanup such as used personal protective equipment). Examples of PCB remediation waste are provided to the right and Table 1 is a general summary of the definition of PCB remediation waste. PCB remediation waste is defined below.

PCB Remediation Waste Definition, 40 CFR 761.3

"*PCB remediation waste* means wastes containing PCBs as a result of a spill, release, or other unauthorized disposal, at the following concentrations: Materials disposed of prior to April 18, 1978, that are currently at concentrations ≥ 50 ppm, regardless of the concentration of the original spill; materials which are currently at any volume or concentration where the original source was ≥ 500 ppm PCBs beginning on April 18, 1978 or ≥ 50 ppm beginning on July 2, 1979; and materials which are currently at any concentration if the PCBs are spilled or released from a source not authorized for use under this part. PCB remediation waste means soil, rags, and other debris generated as a result of any PCB spill cleanup, including, but not limited to:

(1) Environmental media containing PCBs, such as soil and gravel; dredged materials such as sediments, settled sediment fines, and aqueous decantate from sediment.

(2) Sewage sludge containing less than 50 ppm PCBs and not in use according to 761.20(a)(4); PCB sewage sludge; commercial or industrial sludge contaminated as the result of a spill of PCBs including sludges located in or removed from any pollution control device; aqueous decantate from an industrial sludge.

(3) Buildings and other man-made structures (such as concrete floors, wood floor, or walls contaminated from a leaking PCB or PCB-Contaminated Transformer), porous surfaces, and non-porous surfaces."

PCB Remediation Waste Types/Examples*

Bulk PCB Remediation Wastes

- soil
- dredged materials
- gravel
- mud
- sediments
- sludge (industrial, sewage)

Non-Porous Surfaces

- building stone (impermeable polished)
- ceramics (smooth glazed)
- glass (smooth)
- metal (smooth uncorroded)
- plastics (high density)

Porous Surfaces

- asphalt
- building stone (porous)
- ceramics (unglazed)
- concrete and cement
- plaster
- plastics (low density)
- paint or coating on metal

Liquid PCB Remediation Wastes

- aqueous decantate from sediment
- leachate
- removed water from bulk PCB remediation wastes
- water in direct contact with PCBs (e.g., in contact with oil or soils containing PCBs)

**See 40 CFR 761.3 for definitions of these PCB remediation waste types.*

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Table 1 – PCB Remediation Waste under 40 CFR 761.3*

Spill/Release Date**	Source Authorization/ PCB Concentration***	Contaminated Material PCB Concentration
Before January 1, 1978**	PCBs at any concentration	PCBs > 50 ppm
January 1, 1978 – April 17, 1978	Unauthorized for use PCBs at any concentration	Any concentration
	Authorized for use PCBs at any concentration	PCBs > 50 ppm
April 18, 1978 – July 1, 1979	Unauthorized for use PCBs at any concentration	Any concentration
	Authorized for use PCBs > 500 ppm	Any concentration
On or after July 2, 1979	Unauthorized for use PCBs at any concentration	Any concentration
	Authorized for use PCBs > 50 ppm	Any concentration

**Materials not covered by this table may still be regulated under 40 CFR part 761. If you have questions, contact the PCB Coordinator in the EPA Regional Office of the Region in which the site is located. The web link in "Who to Call with Questions on this Tool" provides contact information for Regional PCB Coordinators.*

***The spill/release date is the date of the "spill, release, or other unauthorized disposal," which may include leaching or other ongoing disposal of PCBs. In determining the spill date, consider 40 CFR 761.50(a)(4) ("spills and other uncontrolled discharges of PCBs at concentrations of ≥50 ppm constitute the disposal of PCBs") and 761.50(b)(3)(iii) ("The owner or operator of a site containing PCB remediation waste has the burden of proving the date that the waste was placed in a land disposal facility, spilled or otherwise released into the environment, and the concentration of the spill").*

**** "Authorized for use" may mean (1) subject to a use authorization in 40 CFR 761.30, (2) covered as an excluded PCB product, the result of an excluded manufacturing process, or recycled PCBs, as defined in 40 CFR 761.3, or (3) excluded from regulation as a source of PCB remediation waste.*

*****Effective January 1, 1978, use of PCBs other than in a totally enclosed manner is banned under TSCA § 6(e) absent EPA authorization.*

Disclaimer: This table is designed to represent the definition of "PCB remediation waste" in 40 CFR 761.3 and is not intended to expand, alter, or otherwise change that definition. This table is not a substitute for the regulatory definition in 40 CFR 761.3. In case of conflict between this table and the definition of "PCB remediation waste" in 40 CFR 761.3, the regulatory definition supersedes this table.

Applicability of the PCB Cleanup Requirements in 40 CFR 761.61

Any spill or release of PCBs may be cleaned up and disposed of using the options listed in 40 CFR 761.61, while spills less than 72 hours old may be addressed using the Spill Cleanup Policy found in 761 Subpart G (some restrictions do exist). The checklists in Tools 3 and 4 apply to PCB remediation waste cleaned up and disposed of under 40 CFR 761.61. 40 CFR 761.61 requires that cleanup and disposal of PCB remediation waste be based on the as-found concentration of PCBs and not on the concentration of PCBs in the source from which the PCBs were spilled, released or discharged, or from which the PCBs migrated. The as-found concentration is the concentration measured in samples collected before the environmental media or material is disturbed for cleanup and/or disposal. Soils must not be disturbed before sampling nor may they be diluted (e.g., excavated, placed on a pile, and sampled after such placement) before characterization sampling is conducted. Alternatively, an RP may assume in lieu of sampling and analyzing the PCB remediation waste that such waste

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contains PCBs at or above 50 ppm. Liquid PCB remediation waste is sampled in situ and the disposal of that waste is also based on the as-found concentration.

In general, a site with PCB contamination resulting from a spill, release or other unauthorized disposal is subject to cleanup and disposal in accordance with 40 CFR 761.61, though the date of the spill or release, the PCB concentration of the source, and the PCB concentration of the contaminated material may impact the applicability of cleanup and disposal obligations. In situations when it may be difficult to determine if PCBs at a certain site are subject to the TSCA PCB requirements in 40 CFR 761.61, call the PCB Coordinator in the EPA Regional Office where the cleanup site is located.

The PCB Spill Cleanup Policy (40 CFR 761 Subpart G) is an option for spills that are less than 72 hours old. The PCB Spill Cleanup Policy is not addressed in PCB FAST but related references are available at https://www.epa.gov/pcbs/policy-guidance-manuals-cleanups-polychlorinated-biphenyls-pcbs-spills.

Cleanup Options for PCB Releases and Checklists

40 CFR 761.61 establishes the self-implementing (Notification) and risk-based (Application) PCB cleanup options under 40 CFR 761.61(a) and 40 CFR 761.61(c), respectively. Full characterization of the site based on as-found PCB concentrations is required before the cleanup party prepares and justifies cleanup plans under 40 CFR 761.61(a) or (c). See 40 CFR 761.61(a)(3) and 40 CFR 761.61(c)(1). Also refer to Table 2 for a general comparison of these two PCB cleanup options.

The content of PCB Notifications and Applications is site-specific. The checklists in Tools 3 and 4 will facilitate an RP's preparation and submission of complete PCB Cleanup Documents, which will help expedite their review by EPA.

Temporary Emergency Measures

If a situation arises that requires temporary emergency measures to "prevent, treat, or contain further releases, or mitigate migration to the environment of PCBs or PCB remediation waste,"[4] those actions may be taken by the RP without notification, but will not satisfy the requirements of 40 CFR 761.61.[5] The RP may undertake these actions before formulating a cleanup plan under 40 CFR 761.61 for EPA review. "Emergency cleanup is appropriate where there is imminent danger to health and the environment without containment and/or treatment." See 63 Fed. Reg. 35384, 35408.

Disposal of PCB remediation waste that may be generated during those actions needs to be consistent with a self-implementing cleanup under 40 CFR 761.61(a) or a risk-based disposal option approved by EPA under 40 CFR 761.61(c). The RP may also dispose of the waste following the requirements for performance-based disposal in 40 CFR 761.61(b). Under 761.61(c), EPA would need to determine that any sampling, cleanup, or disposal of PCB remediation waste in a manner other than prescribed in 40 CFR 761.61(a) or (b) would not pose an unreasonable risk of injury to health or the environment.

[4] 63 Fed. Reg. 35384,35408
[5] 63 Fed. Reg. 35384,35408

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Notification of Self-Implementing Cleanup Under 40 CFR 761.61(a) and Checklist

EPA will generally respond to a Notification submitted under 40 CFR 761.61(a) approving, requesting additional information related to, or denying the self-implementing cleanup within 30 calendar days after EPA receives the Notification. This 30-day provision only applies to a cleanup that meets all the prescriptive requirements of 761.61(a). If EPA does not respond within 30 calendar days, the RP may assume the Notification is complete and acceptable as submitted by the RP. See 40 CFR 761.61(a)(3)(ii).

40 CFR 761.61(a) includes requirements related to PCB cleanup verification sampling, and onsite and offsite disposal of PCB remediation wastes. This option also requires caps and fences to be constructed or installed as part of the PCB cleanup in certain circumstances and requires deed notices to be recorded when caps or fences are part of the cleanup. 40 CFR 761.61(a) cross-references sampling methods under 40 CFR 761, Subparts N (site characterization under 40 CFR 761.61(a)(2)) and O (cleanup verification sampling under 40 CFR 761.61(a)(6)).

The "Tool 3: TSCA Self-Implementing PCB Cleanups Checklist – 61(a)" in Appendix A, describes the information that 40 CFR 761.61(a)(3) requires in the Notification to EPA. In addition, the checklist describes other information that EPA recommends be included in the Notification to facilitate, as feasible, a thorough understanding of environmental conditions at the PCB cleanup site.

Application for Risk-Based Disposal Approval Under 40 CFR 761.61(c) and Checklist

This option is used when sampling, cleaning up, or disposing of PCB remediation waste in a manner different than prescribed in 40 CFR 761.61(a) or (b). In addition, this provision also allows storage of PCB remediation waste in a different manner than required under 40 CFR 761.65. Applications under 40 CFR 761.61(c) must be approved by EPA before implementation of activities that are the subject of the approval.

The approval of Applications under 40 CFR 761.61(c) includes, among other things, a determination by EPA that cleanup, sampling, waste storage, and/or waste disposal methods will not pose an unreasonable risk of injury to health or the environment. See 40 CFR 761.61(c)(2).

The "Tool 4: TSCA Risk-Based PCB Cleanups Checklist – 61(c)" in Appendix A describes the information in 40 CFR 761.61(a)(3) which is required to be included in the Application in accordance with 40 CFR 761.61(c)(1). Tool 4 also describes additional information that EPA recommends be included in the Application. The checklist is intended to help the cleanup party prepare a complete Application for EPA review and approval. The information described in the checklist is intended to facilitate a thorough understanding of environmental conditions at the PCB cleanup site.

Hybrid PCB Cleanup Documents – 40 CFR 761.61(a) and 761.61(c)

In some instances, a cleanup party may request approval of a cleanup plan that modifies only a portion of the provisions in 40 CFR 761.61(a) (e.g., cleanup verification sampling) or 40 CFR 761.65 (e.g., time frame for temporary storage). In these situations, EPA may approve such modifications in an approval issued consistent with 40 CFR 761.61(c) and either 40 CFR 761.61(a) or 761.65. The 761.61(c) section of the approval would address the modifications to the requested portions of the provisions in 761.61(a) or 761.65. The checklists in Tools 3 and 4 may be used as guidelines by RPs to prepare PCB Cleanup Documents that need to be approved under both 40 CFR 761.61(a) and (c).

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Table 2 – General Comparison of Notification vs. Application

Notification Under 40 CFR 761.61(a)	Application Under 40 CFR 761.61(c)
▪ 30-day EPA written response ▪ Cannot modify provisions in 40 CFR 761.61(a) or (b), or modify waste storage requirements in 40 CFR 761.65 ▪ Includes cleanup levels for high and low occupancy; can require more stringent cleanup levels ▪ There is not a separate "no unreasonable risk determination" ▪ Provides the methods in 40 CFR 761 Subpart N and Subpart O for characterization and cleanup verification, respectively	▪ EPA may need 180 days or more for review[6] ▪ Allows modification of provisions in 40 CFR 761.61(a), 40 CFR 761.61(b); and waste storage requirements in 40 CFR 761.65 ▪ Risk-based cleanup levels are established during EPA's approval ▪ Approval requires EPA make a no unreasonable risk determination ▪ Methods for characterization, cleanup, or disposal may differ from those in 761.61(a)

Protection of Surface Water

PCB cleanup Applications should include actions that will be taken to protect surface water. These actions could include sampling of storm water drains within and in proximity to the PCB cleanup site. If PCBs are found in storm drain sediments and/or soils surrounding the storm drains, the RP should notify EPA of this finding to determine what next steps should be considered for protection of surface water. Examples of next steps may include removal of soils contaminated with PCBs from the vicinity of the storm drains and removal of sediments or other material inside the storm drains contaminated with PCBs. If soils or storm drain sediments are found to contain PCBs, EPA recommends the RP also collect water and sediment samples from the nearby surface water body following the requirements of an EPA cleanup approval under 40 CFR 761.61(c).

Greener PCB Cleanups

EPA's cleanup programs are dedicated to ensuring that contaminated sites are cleaned up and returned to beneficial use. The Greener Cleanups approach takes into account the fact that cleaning up sites generally requires energy, water, and materials that create environmental footprints of their own. In applying Greener Cleanups, we identify opportunities for reducing the environmental footprint of cleanups, including conserving natural resources, reducing energy, water, and materials use, and reducing greenhouse gas emissions.

Whether PCB cleanups are planned under the self-implementing or risk-based cleanup options, EPA encourages cleanup parties to reduce potential impacts that PCB cleanup activities may have on the environment. To achieve this goal, EPA strongly recommends that RPs adhere, as feasible, to the guidelines in "Principles for Greener Cleanups" found at www.epa.gov/greenercleanups/epa-principles-greener-cleanups. Adherence to these guidelines will help reduce the environmental footprint associated with site-specific PCB cleanup activities, including reduction of greenhouse gas and air emissions from construction equipment used during the cleanup. In particular, cleanup parties may consider applying the Greener Cleanups Best Management Practices (BMP) Checklist from the ASTM Standard Guide for Greener Cleanups, available at www.astm.org/Standards/E2893.htm. Cleanup parties may also contact the PCB Coordinator in the EPA Regional

[6] EPA June 2014 Revisions to the PCB Q and A Manual, Page 92, Q/A #4

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Office for the Region where the site is located for information regarding Region-specific Greener Cleanup policies.

Who to Call with Questions on the Tools?

If you have questions on the tools in Appendix A, call your EPA Regional PCB Coordinator. Visit https://www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs#pcb to obtain Regional PCB Coordinator contact information.

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SECTION IV: Metrics for Measuring Performance of the PCB Cleanup Approach

PCB FAST: Measures, Metrics, and Control Plan

The following table outlines EPA Region 9's Control Plan to track process improvements with PCB FAST. The control plan identifies the Program Measures, the unit of measure for tracking, and the target measure of performance. As these measures and targets were developed based upon experiences in EPA Region 9, other Regions should set reasonable targets based upon their specific circumstances and resources. Use of these measures by other Regions is optional.

Since there is wide variability in the complexity of each cleanup, PCB FAST recommends that each project use Tool 2 to develop a schedule and appropriate measurements.

Table 1 – PCB FAST CONTROL PLAN

Control Point ID	Metric	Unit of Measure	Target Measure of Performance	Current Quarter Status	Recovery Action
1	% of PCB Approvals completed within 45 days of complete application	% of Approvals	>80%		Consider Internal Process changes, including implementing PCB FAST
2	Average number of days it takes to Approve a complete PCB application	# of Days	<45		Consider Internal Process changes, including implementing PCB FAST

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SECTION V: Conclusion

PCB Cleanup Highlights and Next Steps

The PCB Sites Cleanup Framework described in this toolbox is expected to help EPA Regions and responsible parties dramatically reduce the time and costs needed to complete PCB site cleanups and accelerate environmental results to affected communities. PCB FAST is designed to help eliminate root causes of delay and inefficiency and improve communication throughout the site cleanup process.

We hope the information in this toolbox and the tools will help you implement PCB FAST. We also hope that implementation of PCB FAST results in time savings during preparation, approval, and implementation of PCB Cleanup Documents; and stronger relationships among EPA, RPs, involved communities, and state and local regulatory agencies.

We welcome your feedback from implementing the Framework and tools. We encourage you to share success stories or other feedback that would improve PCB FAST and help EPA Regions complete PCB site cleanup projects more quickly and effectively. For more information or to share success stories, please contact:

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PCB Program Manager **U.S. EPA Region 9** 75 Hawthorne Street San Francisco, CA 94105 415-972-3352 armann.steve@epa.gov	**Chemical Engineer** **U.S. EPA Office of Resource Conservation and Recovery** 1200 Pennsylvania Avenue NW Mail Code: 5303P Washington, DC 20460 703-308-8459 mcleod.jennifer@epa.gov	**Regional PCB Coordinator** **U.S. EPA Region 9** 75 Hawthorne Street San Francisco, CA 94105 415-972-3360 santos.carmen@epa.gov

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Appendix A: PCB Facility Approval Streamlining Tools

This appendix contains tools developed to guide you through the PCB Cleanup Sites Toolbox, serving as a launching point for your newly-efficient site cleanup efforts.

- ☐ **TOOL 1:** Initial Discussion with Responsible Party Checklist
- ☐ **TOOL 2:** PCB Sites Cleanup Framework
- ☐ **TOOL 3:** TSCA Self-Implementing PCB Cleanups Checklist – 61(a)
- ☐ **TOOL 4:** TSCA Risk-Based PCB Cleanups Checklist – 61(c)

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TOOL 1: Initial Discussion with Responsible Party Checklist

This checklist can be used by EPA or Responsible Parties to guide the conversation during early discussion regarding a potential PCB cleanup site.

- ☐ Date of Contact:
- ☐ Contact between EPA _____ RP _____
- ☐ Where is the site located?
- ☐ Who are the project stakeholders and contact information?

Name	*Organization*	*Email*	*Phone*

- ☐ Have you discussed this cleanup with State or local authorities? If so, whom?
- ☐ Do you have environmental data? If yes, what are the PCB concentrations?
- ☐ Are there other contaminants?
- ☐ Do you know the source of the PCB contamination?
- ☐ What is the current land use or activities on the property?
- ☐ What are the surrounding land uses? In particular, are there any sensitive uses such as residential, education, water storage, farming (e.g., livestock, crops), and fishing?
- ☐ Are there potential pathways of direct exposure (direct human contact, migration to waterways – storm drains or runoff, sensitive ecological receptors)?
- ☐ Is there a potential unacceptable current exposure? If yes, contact your supervisor immediately.
- ☐ Are there any historic or cultural resources in the vicinity?
- ☐ What is the future or proposed land use?

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- ☐ What is the proposed redevelopment plan, if any?
- ☐ What is the timing of the cleanup?
- ☐ Are you planning to submit a self-implementing notification or a risk based application?
- ☐ Would you like to meet to discuss the framework for conducting this cleanup?

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TOOL 2: PCB Sites Cleanup Framework

The purpose of the PCB Sites Cleanup Framework (Framework) is to summarize the goals and expectations of the cleanup. The key principle of PCB FAST is early discussion and agreement on the overall cleanup strategy. Tool 2 is a template that can be modified to fit site specific situations. This document is usually prepared by the responsible party (RP) and then shared with EPA so that the EPA project managers can review it prior to the first meeting.

Project Name: Name of project as it will appear on application/notification.

Basic Contact Information

Site Owner Name: _____

Party Conducting Cleanup: _____

Email: _____

Telephone: _____

Email Address: _____

Consultant: _____

EPA Project Manager: _____

EPA Manager: _____

General Project Overview

- **Site description and source of contamination:** *[Describe the physical site, including the property boundary, relevant historical uses of the property, and activities that may have resulted in PCB releases. Include any information concerning the source of the PCBs, to include where and when the PCBs were located and the known concentration.]*

- **Contaminants and summary of available data:** *[Include a narrative summary of the data results and include a table of the relevant PCB sample locations and analysis results.]*

- **Any concerns with regards to offsite migration, including any potentially impacted offsite receptors:** *[Identify if there are potential pathways for the PCB contamination to migrate off the site. Specifically identify any storm drains or areas where water drains from the property. Also specify if the PCB contamination may extend beyond the property boundary.]*

- **Preferred regulatory cleanup approach:** *[Identify the TSCA regulatory process under 761.61(a) or (c) that you will propose. The regulatory process could be a combination of 761.61(a) and (c). 761.61(c) is often preferred for large sites or when sampling according to 761.61(a) is not appropriate.]*

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- **Preferred technical cleanup approach:** *[Describe the general approach you are proposing to clean up the site. The approach may be different from one area of the site to another.]*

- **Alternate cleanup approaches:** *[Identify alternatives in the event you are unable to meet the cleanup objectives. Alternatives could include capping PCBs in place when it is infeasible to reach the desired cleanup goal. In such a case, a Land Use Control (e.g., deed restriction, covenant) may be necessary.]*

Project Coordination

- **Description of planned regular communication:** *[Identify your proposed plan for regular communication with EPA. The communication plan should identify the type of meeting/discussion and who should attend. It is envisioned that technical communication will occur directly between project managers. Periodic progress and schedule meetings should involve appropriate levels of management.]*

- **Proposed project schedule:** *[Provide a summary schedule that includes the major project milestones. In particular, identify the dates you will submit the final application or notification and when you would like to have any EPA approval finalized. It is also helpful to identify a subset of important milestones and response actions that will be taken when milestones are missed. At a minimum, when milestones are missed the RP and EPA management should be notified.]*

- **Description of roles and responsibilities for different organizations and stakeholders:** *[Identify what, if any, role organizations other than EPA will play in the cleanup.]*

- **Dispute elevation:** *[One of the primary elements of the PCB FAST process is to address issues in a timely manner in order to avoid unnecessary delays. Identify the appropriate management chain that EPA is to contact when an issue arises that cannot be resolved at the project management level or immediate management level above the project manager.]*

- **Planned site visit:** *[Provide the date for the visit.]*

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TOOL 3: TSCA Self-Implementing PCB Cleanups Checklist – 61(a)

A. Introduction – General, Applicability, Notification, Disclaimers, and Clarifications

1. General

The Toxic Substances Control Act (TSCA) regulations for polychlorinated biphenyls (PCBs) in 40 CFR 761.61(a) require that responsible parties (RPs or cleanup parties) submit a Notification for self-implementing cleanups. The Notification must include a Cleanup Plan and Certification in addition to other information. Refer to 40 CFR 761.61(a)(3)(i) for details.

Section B below includes a checklist to be used as a guide when preparing the Notification. This checklist is to help assure completeness of the Notification and associated Cleanup Plan and Certification before that information is submitted to the U.S. Environmental Protection Agency (EPA). The Notification is submitted to the EPA Regional Administrator, Director of State or Tribal environmental protection agency, and the Director of the county or local environmental protection agency where the cleanup will be conducted. We strongly recommend the RP submit a copy of the Notification to the EPA Regional PCB Coordinator to expedite the review and approval process.

In situations when the RP is not sure about which PCB cleanup option (761.61(a) vs. 761.61(c)) to choose or if the site is larger than one acre, we recommend that an initial conference call and, if necessary, a Framework meeting be scheduled with EPA before drafting and submitting a Notification. This approach is strongly recommended to ensure the RP chooses the most applicable PCB cleanup option for the site. If the RP chooses the self-implementing cleanup option, the RP may consider scheduling a Framework meeting with EPA after making that decision, if desired.

2. Applicability of 40 CFR 761.61(a)

Self-implementing cleanup procedures in 40 CFR 761.61(a) **may not** be used to clean up PCBs in:

a. surface water
b. ground water
c. sediments in marine and fresh ecosystems
d. sewers or sewage treatment systems
e. any private or public drinking water sources or distribution systems
f. grazing lands
g. vegetable gardens

3. Disclaimer

The checklist in Section B, which is based on the requirements for the Notification in 40 CFR 761.61(a)(3), also describes additional information that EPA recommends be included in the Notification. This is based on EPA's experience with cleanup of PCBs at sites with various levels of complexity. Depending on site-specific circumstances, certain additional information requested in the checklist may not be applicable.

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The checklist in Section B is not a substitute for the regulatory requirements in 40 CFR 761.61 including 40 CFR 761.61(a)(3). Cleanup parties and site owners are responsible for complying with all applicable requirements in 40 CFR 761.61. In case of conflict between this document or portion(s) thereof and any PCB regulatory requirement, the TSCA PCB regulations supersede this document.

4. Clarifications

a. **EPA 30-Day Review and Response Period:** 40 CFR 761.61(a)(3)(ii) provides that EPA will review the Notification and approve or disapprove of the self-implementing cleanup, or require additional information, within 30 calendar days after receipt of the Notification. This 30-day provision only applies to a cleanup that meets all the prescriptive requirements of 761.61(a).
The Notification consists of a cleanup plan, in addition to other information required in 40 CFR 761.61(a)(3)(i). If EPA does not respond within 30 calendar days after receipt of the Notification, the RP may assume the Notification is complete and acceptable and proceed with the cleanup according to the information provided to EPA. If EPA determines the Notification is incomplete (i.e., does not include all of the information required under 761.61(a)) and requires the submission of additional information to process the Notification, the 30-day response period will not apply to EPA's review of the supplemented Notification and approval or disapproval of the self-implementing cleanup.

b. **Certification:** The Certification required in 40 CFR 761.61(a)(3)(i)(E) must be signed by both the site owner and the cleanup party. The Certification is part of the Notification.

c. **Cleanup Levels and Land Use:** 40 CFR 761.61(a)(4) prescribes cleanup levels for PCB remediation waste. However, on a site-specific basis and depending on the circumstances of the site, consistent with 40 CFR 761.61(a)(4)(vi), EPA may require cleanup levels more stringent than those required in 40 CFR761.61(a)(4)(i) through (a)(4)(iv). Examples of when more stringent cleanup levels may be required under 40 CFR 761.61(a)(vi) include situations when the cleanup site is in proximity to areas such as residential areas, schools, or environmentally sensitive areas. In these instances, risk-based cleanup levels may be developed via a site-specific risk assessment and proposed by the RP to EPA or the RP may propose the use of EPA's risk-based Regional Screening Levels (RSLs) as PCB cleanup goals.
Current and proposed or planned future land uses must be considered when selecting cleanup levels to be implemented at the cleanup site. If the planned land use is residential use (i.e., high occupancy), EPA may require cleanup of PCBs to levels more stringent than those required in 40 CFR 761.61(a)(4) for high occupancy areas. High occupancy areas are defined in 40 CFR 761.3. EPA may establish risk-based cleanup goals for redevelopment projects involving residential use consistent with 40 CFR 761.61(a)(4)(vi). The RP may follow the same process described above to propose risk-based cleanup levels or goals that are more stringent than the cleanup levels for high occupancy areas in 40 CFR 761.61(a)(4) when a site is planned for residential use or sensitive receptors or environments are present at the site.

d. **Greener Cleanups:** EPA recommends that the Notification describe an RP's reasonable efforts to adhere to EPA's "Principles for Greener Cleanups" found at www.epa.gov/greenercleanups/epa-principles-greener-cleanups. This may include applying the Greener Cleanups Best Management Practices (BMP) Checklist from the ASTM Standard Guide for Greener Cleanups, available at

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www.astm.org/Standards/E2893.htm. The Notification could address the cleanup party's efforts to, for example, reduce the greenhouse gas footprint of PCB cleanup activities and ensure, as feasible, the use of low emission remediation equipment when conducting PCB cleanups. General information and resources for Greener Cleanups are found at www.epa.gov/greenercleanups.

e. **Cleanups Under State or Local Authorities Where PCBs are Contaminants of Concern:** EPA may determine that PCB contamination at sites subject to cleanup under state (e.g., state voluntary cleanup programs) or local (e.g., County cleanup programs) agencies may also be subject to cleanup under TSCA. RPs should coordinate cleanup efforts with EPA and the involved state and/or local agencies to ensure that cleanup of PCBs will be consistent with TSCA PCB requirements and any applicable state and local agencies' requirements. EPA may also coordinate with the state or local agency to ensure the cleanup party formally notifies EPA about PCBs at their site and submits a cleanup plan under either 761.61(a) or (c). Because the TSCA PCB regulations are not delegated to state or local agencies, EPA is the regulatory lead for the cleanup of PCBs under the TSCA PCB cleanup requirements in 40 CFR 761.61.

5. Special Considerations

Figures to be included in the Notification and related cleanup plan should be, as feasible, prepared in a manner that is useable and readable by color-blind people (i.e., figures should be readable in black and white). Symbols with different shapes and/or shading may be used.

6. Real-Time Dust Monitoring During PCB Cleanup Activities that Generate Dust

To prevent exposure to PCBs in dust during PCB cleanup activities that may generate dust (e.g., soil excavation), EPA strongly recommends that real-time dust monitoring be conducted and dust mitigation measures be implemented as necessary, based on real-time dust monitoring readings. EPA also strongly recommends that procedures to address real-time dust monitoring and mitigation at the cleanup site be proposed in the Notification by the RP. A more detailed discussion of real-time dust monitoring is included in Tool 4, Section I.E.7.

7. PCB Extraction, Analytical Methods, and 40 CFR 761 Subpart Q

a. **Extraction methods:** The PCB regulations require the use of the Ultrasonic (EPA SW 846 Method 3550C) or Soxhlet (EPA SW-846 Method 3540C) extraction methods. EPA recommends the use of the Soxhlet extraction procedure. Also, certain states may not allow the use of the Ultrasonic extraction method (EPA Method 3550). The Soxhlet extraction method can reliably extract PCBs from a large variety of solid matrices.

b. **Analytical methods:** Sample extracts must be analyzed following EPA SW-846 Method 8082A. EPA recommends the latest version of the extraction and analytical method be used.

c. **40 CFR Part 761, Subpart Q, Self Implementing Alternative Extraction and Chemical Analysis Procedures for Non-liquid PCB Remediation Waste Samples:** Subpart Q is applicable to non-liquid PCB remediation waste samples. If a cleanup party wishes to use an extraction or analytical method for PCB site characterization different than the methods required in the TSCA PCB regulations, the cleanup party must meet or exceed the requirements in Subpart Q. The certification accompanying the Notification must include a statement that such a method will be used and that a comparison study which meets or

exceeds the requirements of 40 CFR 761, Subpart Q, and for which records are on file, has been completed prior to verification sampling. EPA will review the results of the cleanup party's Subpart Q study and related conclusions during its review of the Notification. In responding to the Notification, EPA will verify if the proposed alternative extraction and/or analytical method is comparable to the methods required in the PCB regulations.

8. Reporting of PCB Analytical Results

Non-liquid PCB concentrations must be reported on a dry-weight basis as micrograms/gram (or milligram/kilogram). Laboratory results must be reported for each Aroclor and as total PCBs. Moisture content for each sample should also be reported by the laboratory. Quality control samples include surrogates, matrix spikes/matrix spike duplicates, laboratory control samples, laboratory control sample duplicates, and method blanks. Liquid PCB concentrations must be reported on a wet weight basis as micrograms/gram (or milligram/kilogram) or on a weight-per-volume basis as mg/Liter, if the density of the liquid is known and reported by the laboratory together with the results. See 40 CFR 761.1 (Applicability) for more details.

EPA may request that additional Aroclors be analyzed and reported (e.g., Aroclor 1268) depending on history of PCB uses at the site or data from environmental sampling (e.g., soil sampling) that may suggest other Aroclors may need to be reported.

9. As-found PCB Concentration

40 CFR 761.61 requires that cleanup and disposal of PCB remediation waste be based on the as-found concentration of PCBs and not on the concentration of PCBs in the source from which the PCBs were spilled, released or discharged, or from which the PCBs migrated. The as-found concentration is the concentration of PCBs in the waste at the site at the time the waste was discovered as opposed to the concentration of the PCBs in the material that was originally spilled, released, or otherwise disposed of at the site. "As found" refers to in-situ concentrations, or to stockpiles if the waste was already in place at the time of site investigation or characterization.[1] You must not dilute the as-found concentration of the contaminated soil during excavation or other management activities. For example, soils contaminated with PCBs must not be diluted by mixing those soils with clean soils or soils containing a lower concentration of PCBs. Soils must not be disturbed outside of sampling or diluted (e.g., excavated and placed on a pile, and sampled afterwards) before conducting characterization sampling. For the purpose of disposal only, an RP may assume in lieu of sampling and analyzing the PCB remediation waste that such waste contains PCBs at or above 50 ppm (see 40 CFR 761.61(a)(5)(i)(B)(2)(i)).

B. Checklist for 40 CFR 761.61(a) Self-Implementing Cleanup Notifications

Before submitting the Notification required in 40 CFR 761.61(a)(3), the site must be characterized adequately to be able to provide the information required by paragraph (a)(3). See 40 CFR 761.61(a)(2). A Framework meeting with EPA is also recommended if the site is larger than one acre or the RP is not sure about whether to choose the self-implementing or the risk-based option to clean up PCBs at its site.

[1] June 2014 Version Revisions to the PCB Q and A Manual, U.S. EPA, page 75 to 76, Q/As #1 through #7.

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The cleanup plan and disposal of PCB remediation wastes from the site must be based on the as-found PCB concentration measured in media (e.g., soils, sediments in storm water drains) and/or materials (e.g., porous surfaces) of concern.

The Notification must consist of the cleanup plan and certification required in 40 CFR 761.61(a)(3)(i). The checklist below describes information required in that provision and additional information that EPA recommends be included in the Notification.

1. Part 1 Checklist: Information Required in 40 CFR 761.61(a)(3) to Include in Notification

Pre-Cleanup Site Characterization

- The nature of the contamination, including kinds of materials contaminated. (40 CFR 761.61(a)(3)(i)(A)
- A summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples. The summary must include sample collection and analysis dates. The EPA Regional Administrator may require more detailed information including, but not limited to, additional characterization sampling or all sample identification numbers from all previous characterization activities at the cleanup site. (40 CFR 761.61(a)(3)(i)(B))
- The location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers in the data summary from paragraph (a)(3)(i)(B) of this section. (40 CFR 761.61(a)(3)(i)(C))

PCB Cleanup Plan

- A cleanup plan for the site, including schedule, disposal technology, and approach. This plan should contain options and contingencies to be used if unanticipated higher concentrations or wider distributions of PCB remediation waste are found or other obstacles force changes in the cleanup approach. (40 CFR 761.61(a)(3)(i)(D))

Written Certification

- A written certification signed by the owner of the property where the cleanup site is located and the party conducting the cleanup, that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site are on file at the location designated in the certificate, and are available for EPA inspection. Persons using alternate methods for chemical extraction and chemical analysis for site characterization must include in the certificate a statement that such a method will be used and that a comparison study which meets or exceeds the requirements of Subpart Q of this part, and for which records are on file, has been completed prior to verification sampling." (40 CFR 761.61(a)(3)(i)(E))

2. Part 2 Checklist: EPA Recommended Additional Information to Include in Notification /Self-Implementing Cleanup Plan

<u>Disclaimer:</u> The RP must comply with all applicable requirements in 40 CFR Part 761. The checklist may not contain all the requirements that apply to PCB remediation waste under 40 CFR 761.61.

a. Pre-Cleanup Site Characterization

- ☐ Under 40 CFR 761.61(a)(2), the RP must characterize the cleanup site adequately to provide the information required in 40 CFR 761.61(a)(3). To assess the sufficiency of existing site characterization

data, the RP may follow a method provided in 40 CFR 761 Subpart N. If applicable, EPA recommends the RP identify site characterization data gaps to ensure the site is adequately characterized

- ☐ Tables summarizing all pre-cleanup PCB characterization results (i.e., PCB concentrations) for the site and impacted adjacent areas showing the nature, location, and extent of the contamination, and the kind of contaminated materials. Sample identification numbers should be included and cross referenced in the data summary tables and site maps and figures
- ☐ Site figures and maps to scale depicting PCB concentrations measured in all previously collected pre-cleanup characterization samples
- ☐ Tables summarizing results for site samples together with related laboratory quality control samples, laboratory quality control sample duplicates, matrix spikes, matrix spike duplicates, surrogate recoveries, method blanks, and any other quality control sample analyzed by the laboratory. The summary should identify sample extraction methods, extract pre-analysis cleanup methods used (if any), laboratory analytical methods, and laboratory acceptance limits for quality control samples

b. PCB Cleanup Plan

- ☐ Additional site characterization: Description of additional site characterization to be conducted, if determined to be necessary. This site characterization should follow a Sampling and Analysis Plan approved by EPA
- ☐ PCB cleanup site: Description and identification of the cleanup site in site maps or figures to scale consistent with the definition of cleanup site. 40 CFR 761.3 defines cleanup site: "Cleanup site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a cleanup of PCB remediation waste regardless of whether the site was intended for management of waste."
- ☐ Sampling and analysis plan (SAP) developed using data quality objectives and a comprehensive conceptual site model: At a minimum, EPA recommends the SAP describe the: (1) laboratory methods for sample extraction, (2) procedures for cleanup of sample extracts, (3) procedures for extract analysis, (4) sample collection methods for additional characterization, (5) sample collection methods for cleanup verification samples, and (6) types of quality control samples that will be used for the analyses such as laboratory control samples, laboratory control sample duplicates, matrix spikes, matrix spikes duplicates, surrogate recoveries, method blanks, and laboratory acceptance criteria for all these quality control samples. In addition, the SAP should include tables summarizing the number and types of samples (including field and laboratory quality control samples) that will be taken, sample identification numbers, and sample locations; and figures and maps depicting sampling locations and cross referencing the sample identification numbers included in the tables
- ☐ PCB cleanup levels to be applied to the site:
    - Description of cleanup levels to be applied in accordance with 40 CFR 761.61(a)(4)(i) through (iv)
    - Justification of cleanup levels including discussion of impacts on human and ecological receptors and habitat that may be affected by PCB contamination if cleanup levels more stringent than prescribed in 40 CFR 761.61(a)(4)(i) through (iv) need to be applied to the site
        - Depending on site-specific circumstances, EPA may require more stringent cleanup levels consistent with 40 CFR 761.61(a)(4)(vi) or require that cleanup be conducted under 40 CFR 761.61(c) (risk-based PCB cleanup option)

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- ☐ Cleanup methods for PCB remediation wastes
  - Description of applicable cleanup or decontamination methods and technologies to be used in accordance with 40 CFR 761.61(a)(5) for each bulk, non-porous surface, porous surface, and liquid PCB remediation waste
- ☐ Cleanup verification
  - Description of cleanup verification to be conducted in accordance with 40 CFR 761.61(a)(6) and 40 CFR 761, Subpart O. A SAP covering those requirements should be provided in the PCB Cleanup Plan that includes the information described in the third square bullet above ("Sampling and analysis plan (SAP) developed using data quality objectives and a comprehensive conceptual site model")
- ☐ On-site disposal (leaving in place) of porous surfaces PCB remediation wastes
  - Description of all on-site porous surfaces PCB remediation wastes disposal to be conducted in accordance with 40 CFR 761.61(a)(5) (iii) and 40 CFR 761.61(a)(4)
  - Description of any capping to be conducted in accordance with 40 CFR 761.61(a)(7)
  - Description of any cleanup of the porous surface in accordance with 40 CFR 761.79 or 40 CFR 761.30(p)
  - Description of any fencing, if applicable, to isolate porous surfaces and associated marking that will be used to comply with the requirements in 40 CFR 761.61(a)(4)(iii) and 40 CFR 761.30(p)
- ☐ On-site disposal (leaving in place) of bulk PCB remediation waste
  - Description of on-site disposal of bulk PCB remediation wastes to be conducted in accordance with the applicable cleanup levels in 40 CFR 761.61(a)(4) for low and/or high occupancy and disposal requirements in 40 CFR 761.61(a)(5)(i)
  - Description of any cap to be constructed in accordance with 40 CFR 761.61(a)(7)
  - Description of any fencing and associated marking that will be used to comply with requirements in 40 CFR 761.61(a)(4)(i)
- ☐ Deed notices for caps, fences, and low occupancy areas
  - Description of deed notices for caps, fences, and/or low occupancy areas that will be carried out in accordance with 40 CFR 761.61(a)(8)
- ☐ Liquid PCB remediation wastes
  - Description of the methods to manage liquid PCB remediation wastes including decontamination methods that will be used consistent with 40 CFR 761.61(a)(5)(iv)(A)
- ☐ Off-site disposal of PCB remediation wastes and cleanup wastes
  - Description of off-site disposal methods to be used in accordance with 40 CFR 761.61(a)(5) for each type of PCB remediation waste (i.e., bulk, non-porous surfaces, porous surfaces, and liquids) and cleanup wastes
- ☐ Description of the extraction and analytical method to be used: The PCB concentration in the waste for disposal must be based on the as-found concentration[2] measured via analysis using EPA SW-846 Method 8082A or other analytical method validated following the procedures in 40 CFR 761, Subpart Q. Before analysis, the samples must be extracted using EPA extraction Method 3500C/3540C (Soxhlet) or extraction Method 3500C/3550C (Ultrasonic) or an extraction method validated consistent with 40 CFR 761, Subpart Q

[2] Regarding "as-found" concentration, refer to Section A.9 in "Tool 3: TSCA Self-Implementing PCB Cleanups Checklist Tool – 61(a)"

- Marking of PCBs, onsite PCB waste storage, additional notifications, manifesting, site security, and decontamination
    - Description of PCB marking that will be carried out in accordance with 40 CFR 761.40 and 40 CFR 761.45
    - Description of PCB waste storage that will be carried out in accordance with 40 CFR 761.65.
    - Description of PCB waste activity notification, manifesting, and manifest/disposal recordkeeping that will be carried out in accordance with 40 CFR 761 Subpart K.
    - EPA recommends that a description of site security including posting of adequate warning signs be included in the cleanup plan to ensure unauthorized persons do not access the site.
- Records documenting completion of PCB sampling, cleanup, and disposal
    - Records must be kept for actions taken under 40 CFR 761.61(a)(3) (Notification), (a)(4) (Cleanup levels), and (a)(5) (Site cleanup) in accordance with 40 CFR 761.125(c)(9) as required in 40 CFR 761.61(a)(9).
    - Description of PCB sampling, cleanup, and disposal activities that were completed consistent with the cleanup plan.
    - If necessary and depending on site circumstances, EPA may recommend additional information to be included in the PCB cleanup completion report.

c. Certification in 40 CFR 761.3

- In addition to the written certification required in 40 CFR 761.61(a)(3)(i)(E), EPA may request the certification also include the language in 40 CFR 761.3, Definition of Certification: "Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete."

d. Applicable Decontamination Standards and Procedures in 40 CFR 761.79 to Include in Notification

- Decontamination of sampling equipment, tools, and movable equipment used during site characterization, cleanup, and cleanup verification sampling
- Description of applicable standards and procedures to be used, including standards and procedures in 40 CFR 761.79(c)(2) (sampling equipment, tools, and movable equipment decontamination); 40 CFR 761.79(e) (limitation of exposure and control of releases); 40 CFR 761.79(f)(2) (sampling and recordkeeping) if 761.79(c)(2) is used; and 40 CFR 761.79(g) (disposal of decontamination waste and residues).

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e. Other Additional EPA Recommended Information to Include in the Notification/Cleanup Plan

- ☐ Comprehensive conceptual site model to support cleanup levels and decisions, and site-specific sampling plans.
- ☐ Real-time dust monitoring: Description of real-time air dust monitoring including dust action levels that will be applied to assure no exposure to the public or the environment during site cleanup activities that may generate dust (e.g., soil excavation).
- ☐ Dust suppression: Description of dust suppression methods that will be used to control dust associated with cleanup of PCB remediation waste without generating unreasonable amounts of runoff.
- ☐ PCB congeners and/or homologues: 40 CFR 761.61(a)(4)(vi) gives EPA the authority to require cleanup at a site or portion thereof to more stringent cleanup levels than those required in 761.61(a) based on the proximity to areas such as residential dwellings, hospitals, schools, endangered species habitats, and wetlands. Depending on the cleanup levels that EPA may require, PCBs may need to be analyzed as PCB congeners or homologues. If these analyses are requested by EPA, a description of PCB congener and/or homologue analytical procedures to be used should be included in the cleanup plan
- ☐ Storm water drains and surrounding soils: If applicable, a description of any sampling and analysis of sediments in storm water drains and/or soils around storm drain inlet; and if necessary, a proposal under 40 CFR 761.61(c) for sampling that will be conducted of water and sediments in the surface water body receiving the storm water runoff.
- ☐ Surface water protection: If applicable, a description of any measures for surface water protection that can be conducted within the applicable scope of 40 CFR 761.61(a). For surface water protection measures that are outside the scope of 761.61(a), a proposal for such measures under 40 CFR 761.61(c).

C. Who to Call with Questions on Tool 3?

If you have questions on this tool, call your EPA Regional PCB Coordinator. Visit https://www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs#pcb to obtain Regional PCB Coordinator contact information.

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TOOL 4: TSCA Risk-Based PCB Cleanups Checklist – 61(c)

I. Introduction – General, Framework Meetings, Applicability, Disclaimers, and Clarifications

A. General

The Toxic Substances Control Act (TSCA) regulations for polychlorinated biphenyls (PCBs) in 40 CFR 761.61(c)(1) contain requirements for when a responsible party (RP) must submit a risk-based disposal approval application (Application) to EPA. Any person wishing to sample, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in 40 CFR 761.61(a) or (b), must submit a risk-based disposal approval application in accordance with 40 CFR 761.61(c). Any person wishing to store PCB remediation waste in a manner other than prescribed in 40 CFR 761.65, must also submit a risk-based disposal approval application in accordance with 40 CFR 761.61(c).

The RP must apply in writing to the Regional Administrator in the EPA Region where the sampling, cleanup, disposal, or storage site is located, for sampling, cleanup, disposal, or storage occurring in a single EPA Region; or to the Director, Office of Resource Conservation and Recovery, for sampling, cleanup, disposal, or storage occurring in more than one EPA Region. EPA recommends the RP also send a copy of the Application to the EPA Regional PCB Coordinator to expedite its review and approval process. No person may conduct cleanup and/or related activities under 40 CFR 761.61(c) prior to obtaining written approval from EPA.[1]

The checklist in Section III below is intended to ensure that a responsible party (RP) prepares an Application that contains complete and technically sound information. The content of such an Application is described in the checklist in Section III.A and III.B and includes:

- The information required in 40 CFR 761.61(a)(3)(i) consistent with 40 CFR 761.61(c)(1), including a cleanup plan and a written certification (Section III.A), and
- EPA-recommended additional site-specific information to facilitate EPA's full understanding of environmental issues and human health and ecological risks at the site (Section III.B).

The RP should include sufficient information in the Application for EPA to make the no unreasonable risk determination required in 40 CFR 761.61(c)(2).

B. Framework Meetings

EPA recommends that an initial conference call and a Framework Meeting be scheduled before the RP drafts and submits the Application for review and approval (see Tools 1 and 2) by EPA. During the initial contact, the RP will have an opportunity to introduce the cleanup site (as defined in 40 CFR 761.3), discuss the results of site characterization completed at the site, and identify whether any data gaps remain. This approach is recommended to ensure that a submitted Application is complete, which will help expedite EPA's review and

[1] Polychlorinated Biphenyl (PCB) Site Revitalization Guidance under the Toxic Substances Control Act (TSCA), U.S. EPA November 2005. See page 26 of the pdf (page 21 of the hard copy) and footnote 5 in page 20 of the pdf (page 15 of the hard copy).

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approval of the Application. To facilitate this approach, EPA recommends the Current Conditions Report and Data Gaps described in Section II.A below be submitted for review to EPA before the Framework Meeting.

C. Applicability of 40 CFR 761.61(c)

40 CFR 761.61(c) only applies to PCB remediation waste. Any RP wishing to sample, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in 40 CFR 761.61(a) or (b) or store PCB remediation waste in a manner different than prescribed in 40 CFR 761.65 must apply for an approval under 40 CFR 761.61(c). In addition, under 761.61(c), the RP may clean up PCBs in the following media and areas which cannot be cleaned up under 40 CFR 761.61(a):

1. surface water
2. ground water
3. sediments in marine and fresh ecosystems
4. sewers or sewage treatment systems
5. any private or public drinking water sources or distribution systems
6. grazing lands
7. vegetable gardens

D. Disclaimers

The checklist in Section III, which is based on the requirements in 40 CFR 761.61(a)(3) in accordance with 40 CFR 761.61(c)(1), also describes additional specific information that EPA requests be included in the Application. This is based on EPA's experience with cleanup of PCBs at sites with various levels of complexity. Depending on site-specific circumstances certain additional information requested in the checklist may not be applicable.

The checklists in Section III are not a substitute for the regulatory requirements in 40 CFR 761.61 including 40 CFR 761.61(a)(3). RPs and site owners are responsible for compliance with all requirements in 40 CFR 761.61 and 40 CFR Part 761 applicable to PCB remediation waste. In case of conflict between this document or portion(s) thereof and any PCB regulatory requirement, the TSCA PCB regulations supersede this document.

E. Clarifications

1. Time Frame for EPA Review and Approval of PCB Cleanup Applications: 40 CFR 761.61(c) does not contain a time period in which EPA must review and approve an Application for risk-based cleanup.

2. Certification: The Certification required in 40 CFR 761.61(a)(3)(i)(E) must be signed by both the site owner and the cleanup party. The Certification is part of the Application.

3. Risk-Based PCB Cleanup Goals and Land Use: In general, each risk-based Approval must be based on an individual risk assessment for the site.[2] The RP should include in the Application a site-specific risk assessment (human health assessment and ecological risk assessment), including and not limited to site-specific risk-based cleanup levels and the cleanup method, to support the Application. Depending on the scope of the Application, a site-specific risk assessment may not be applicable or necessary. However, the RP should include a written

[2] June 2014 Version Revisions to the PCB Q and A Manual, U.S. EPA, page 92, Q/A #4.

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sound technical justification in the Application when a site-specific risk assessment is not necessary to support or supplement the Application.

Instead of developing and proposing a site-specific risk assessment, or when a site-specific risk assessment is not applicable or necessary, an alternative option is to propose generic EPA risk-based Regional Screening Levels (RSLs) as PCB cleanup goals for the site. In its Approval, EPA may incorporate those cleanup goals as requirements of the cleanup. EPA has developed PCB RSLs applicable to industrial/commercial and residential land uses. If RSLs are used as cleanup goals, PCBs are to be cleaned up to levels equal to or below the applicable RSLs. The RSLs are generally updated yearly.

EPA may use the Office of Solid Waste and Emergency Response (now Office of Land and Emergency Management) guidance for Superfund risk assessments (issued in 1989 and subsequently amended in 2003 and beyond) as well as the Superfund PCB guidance (issued in 1990) as a reference when reviewing any request for a risk-based approval submitted under 40 CFR 761.61(c) and deciding on an appropriate risk-based method for cleanup and disposal of PCB remediation wastes.[3] EPA has established in the Superfund National Contingency Plan (NCP) an acceptable lifetime cancer risk range of 10^{-6} to 10^{-4} and a hazard quotient of less than 1 for non-cancer effects. Specific to PCBs, EPA has also developed a reference dose for non-cancer effects. In general, and not specific to PCBs, EPA's Risk Assessment Guidance for Superfund recommends that when in addition to cancer effects a chemical also exhibits non-cancer effects that remedial actions need be protective of both effects. For example, EPA may determine a subset of the cancer risk range (i.e., 10^{-6} to 10^{-5}) may be reasonable to use in order to be protective of combined cancer and non-cancer effects exhibited by a chemical.

With respect to the use of EPA RSLs, the "U.S. EPA Technical Support Users Guide: Regional Screening Levels-May 2016" states that:

> "Site specific SLs corresponding to an HQ of less than 1 may be appropriate for those sites where multiple chemicals are present that have RfDs or RfCs based on the same toxic endpoint. Site specific SLs based upon a cancer risk greater than 10^{-6} can be calculated and may be appropriate based upon site specific considerations. However, caution is recommended to ensure that cumulative cancer risk for all actual and potential carcinogenic contaminants found at the site does not have a residual (after site cleanup, or when it has been determined that no site cleanup is required) cancer risk exceeding 10^{-4}. Also, changing the target risk or HI may change the balance between the cancer and noncancer endpoints. At some concentrations, the cancer-risk concerns predominate; at other concentrations, noncancer-HI concerns predominate. The user must take care to consider both when adjusting target risks and hazards."

Before a risk based cleanup level for PCBs is established for the site, the RP and EPA should consult on a scientifically based approach that is consistent with current EPA risk assessment guidelines to derive site-specific values or to apply the EPA RSLs or to apply other values that EPA may approve.

4. Cleanups Under State or Local Authorities Where PCBs are Contaminants of Concern: EPA may determine that PCB contamination at sites subject to cleanup under state (e.g., state voluntary cleanup programs) or local (e.g., County cleanup programs) agencies may also be subject to cleanup under TSCA. RPs should coordinate cleanup efforts with EPA and the involved state and/or local agencies to ensure that cleanup of PCBs will be consistent with TSCA PCB requirements and any applicable state and local agencies' requirements. EPA may also

[3] Polychlorinated Biphenyl (PCB) Site Revitalization Guidance under the Toxic Substances Control Act (TSCA), U.S. EPA November 2005. See pages 14-15. Visit https://www.epa.gov/sites/production/files/2015-08/documents/pcb-guid3-06.pdf

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coordinate with the state or local agency to ensure the cleanup party formally notifies EPA about PCBs at their site and submits a cleanup plan under either 761.61(a) or (c). Because the TSCA PCB regulations are not currently delegated to state or local agencies, EPA is the regulatory lead for the cleanup of PCBs under the TSCA PCB cleanup requirements in 40 CFR 761.61.

5. Greener Cleanups: EPA recommends that the Application describe the RP's reasonable efforts to adhere to EPA's "Principles for Greener Cleanups" found at www.epa.gov/greenercleanups/epa-principles-greener-cleanups. This may include applying the Greener Cleanups Best Management Practices (BMP) Checklist from the ASTM Standard Guide for Greener Cleanups, available at www.astm.org/Standards/E2893.htm. The Application could address the RP's efforts to, for example, reduce the greenhouse gas footprint of PCB cleanup activities and ensure, as feasible, the use of low emission remediation equipment when conducting PCB cleanups. General information and resources for Greener Cleanups are found at www.epa.gov/greenercleanups.

6. Special Considerations: Figures to be included in the Notification and related cleanup plan should be, as feasible, prepared in a manner that is useable and readable by color-blind people (i.e., figures should be readable in black and white). Symbols with different shapes and/or shading may be used.

7. Real-Time Dust Monitoring During PCB Cleanup Activities that Generate Dust: To prevent exposure to PCBs in dust during PCB cleanup activities that may generate dust (e.g., soil excavation, cleanup of contaminated substrates), EPA strongly recommends real-time dust monitoring be conducted and dust mitigation measures implemented, as necessary, based on real-time dust monitoring readings. The RP should propose in the Application the method by which it will conduct real-time monitoring and include information on the type of equipment, a verification that equipment can autocorrect for relative air humidity, integration time for real-time readings, and confirmation that all readings will be reviewed in real time and that dust mitigation measures will also be taken in real time, as necessary. Dust action levels should be specified; and dust mitigation measures applicable to visible dust should also be included as part of the dust monitoring activities.

8. PCB Extraction, Analytical Methods, 40 CFR Part 761, Subpart Q, and Other Analytical Methods

a. **Extraction methods:** The PCB regulations require the use of the Ultrasonic (EPA SW 846 Method 3550C) or Soxhlet (EPA SW-846 Method 3540C) extraction methods. EPA recommends the use of the Soxhlet extraction procedure. The Soxhlet method can reliably extract PCBs from a large variety of solid matrices. Also, certain states may not allow the use of the Ultrasonic extraction method (EPA Method 3550). Liquids should be extracted for PCBs following appropriate and applicable Methods in SW-846.

b. **Analytical methods:** Sample extracts must be analyzed following EPA SW-846 Method 8082, except as provided below. EPA strongly recommends the latest version of the extraction and analytical method be used.

c. **40 CFR 761 Subpart Q, Self Implementing Alternative Extraction and Chemical Analysis Procedures for Non-liquid PCB Remediation Waste Samples:** This Subpart is applicable to non-liquid PCB remediation waste samples. If a cleanup party wishes to use an extraction or analytical method for PCB site characterization different than the methods required in the TSCA PCB regulations, the cleanup party must meet or exceed the requirements in Subpart Q. The certification accompanying the Application must include a statement that such a method will be used and that a comparison study which meets or exceeds the requirements of 40 CFR 761, Subpart Q, and for which records are on file, has been completed prior to verification sampling. EPA will review the results of the cleanup party's Subpart Q study and related conclusions during its review of the Application. In responding to the Application, EPA

will verify if the proposed alternative extraction and/or analytical method is comparable to the methods required in the PCB regulations.

d. **Other analytical methods:** Analytical methods other than Method 8082A may need to be used in certain situations. For example, EPA Method 1668 may be used to analyze for PCB congeners in sediments or other media such as air where very low detection limits are necessary to estimate risks.

9. Reporting of PCB Analytical Results: PCB concentrations in solid matrices must be reported on a dry-weight basis as micrograms/gram (or milligram/kilogram). Laboratory results must be reported for each Aroclor and as total PCBs. Moisture content for each sample should also be reported by the laboratory. Quality control samples should include surrogates, matrix spikes/matrix spike duplicates, laboratory control samples, laboratory control sample duplicates, and method blanks. PCB concentrations in liquid matrices must be reported on a wet weight basis as micrograms/gram (or milligram/kilogram) or on a weight-per-volume basis as mg/Liter, if the density of the liquid is known and reported by the laboratory together with the results. See 40 CFR 761.1 for more details.

EPA may request that additional Aroclors be analyzed and reported (e.g., Aroclor 1268) depending on history of PCB uses at the site or data from environmental sampling (e.g., soil sampling) that may suggest other Aroclors may need to be reported.

10. As-found PCB Concentration: 40 CFR 761.61 requires that cleanup and disposal of PCB remediation waste be based on the as-found concentration of PCBs and not on the concentration of PCBs in the source from which the PCBs were spilled, released or discharged, or from which the PCBs migrated. The as-found concentration is the concentration of PCBs in the waste at the site at the time the waste was discovered as opposed to the concentration of the PCBs in the material that was originally spilled, released, or otherwise disposed of at the site. "As found" refers to in-situ concentrations or to stockpiles if the waste was already in place at the time of site investigation or characterization.[4] You must not dilute the as-found concentration of the contaminated soil during excavation or other management activities. For example, soils contaminated with PCBs must not be diluted by mixing those soils with clean soil or soils containing PCBs at a lower concentration. Soils must not be disturbed outside of sampling or diluted (e.g., excavated, placed on a pile, and sampled afterwards) before conducting site characterization sampling. For the purpose of disposal only, an RP may assume in lieu of sampling and analyzing the PCB remediation waste for disposal that such waste contains PCBs at or above 50 ppm (see 40 CFR 761.61(a)(5)(i)(B)(2)(i)).

11. Sampling and Analysis Plans, General: At a minimum, the sampling and analysis plan (SAP) should describe the: (1) laboratory methods for sample extraction, (2) procedures for cleanup of sample extracts, (3) procedures for extract analysis, (4) sample collection methods for additional characterization, (5) sample collection methods for cleanup verification samples, and (6) types of quality control samples that will be used for the analyses such as laboratory control samples, laboratory control sample duplicates, matrix spikes, matrix spikes duplicates, surrogate recoveries, method blanks, and laboratory acceptance criteria for all these quality control samples. In addition, the sampling plan should include tables summarizing the number and types of samples (including field and laboratory quality control samples) that will be taken, sample identification numbers, and sample locations; and figures and maps depicting sampling locations and cross referencing the sample identification numbers included in the tables.

[4] June 2014 Version Revisions to the PCB Q and A Manual, U.S. EPA, page 75 to 76, Q/As #1 through #7.

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12. Checklist for 40 CFR 761.61(c) Risk-Based PCB Cleanup Application: Before submitting the Application required in 40 CFR 761.61(c), the RP must characterize the site adequately. The cleanup plan and disposal of PCB remediation wastes from the site must be based on the as-found PCB concentration measured in media (e.g., soils, sediments) and/or materials (e.g., porous surfaces) of concern.

II. Before Submitting a PCB Risk-Based Approval Application

A. Current Conditions Report and Data Gaps

EPA recommends the RP prepare and submit for review a Current Conditions Report addressing the information in Sections III.B.1 (Executive Summary), III.B.2 (Site Description), III.B.3 (Description of PCB "Cleanup Site"), III.B.4 (Proposed Risk-Based PCB Cleanup Levels), and III.B.5 (Site Characterization and Data Gaps) in the Checklist in Section III below before the draft Application is prepared. This information includes an assessment of any site characterization data gaps that may remain. The RP and EPA will discuss the Current Conditions Report and remaining data gaps at the Framework meeting described in Section I.B above.

A Current Conditions Report is not required in 40 CFR 761.61(c). EPA is recommending the above approach to expedite the review of the Application. The RP can submit an Application to EPA for review and approval. However, if the site is not sufficiently characterized to support the cleanup plan in the Application and /or characterization data is found to be incomplete, EPA will request additional information and/or plans for additional characterization before it can approve the Application.

If a Current Conditions Report is submitted by the RP, EPA may determine that certain site characterization data gaps are significant and need to be filled by the RP. In this situation, EPA may request that additional site characterization be completed before the RP submits the Application for EPA's review.

In situations when EPA may determine that remaining site characterization data gaps are not significant and can be filled in tandem with cleanup activities; or that site characterization is complete, the RP may submit the Application to EPA for review. In both of these instances, the RP may choose to submit a draft Application for EPA review before it submits the final Application. EPA recommends the RP consider submitting its final Application after the RP and EPA reach agreement on the completeness of site characterization and the content and matters addressed in the draft Application.

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III. Checklist for Risk-Based Approval Application Content

A. Part 1 Checklist: Required Information in 40 CFR 761.61(a)(3) for Risk-Based Application in Accordance with 40 CFR 761.61(c)(1)

Pre-Cleanup Site Characterization

- The nature of the contamination, including kinds of materials contaminated. (40 CFR 761.61(a)(3)(i)(A))
- A summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples. The summary must include sample collection and analysis dates. The EPA Regional Administrator may require more detailed information including, but not limited to, additional characterization sampling or all sample identification numbers from all previous characterization activities at the cleanup site. (40 CFR 761.61(a)(3)(i)(B))
- The location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers in the data summary from paragraph (a)(3)(i)(B) of this section. (40 CFR 761.61(a)(3)(i)(C))

PCB Cleanup Plan

- A cleanup plan for the site, including schedule, disposal technology, and approach. This plan should contain options and contingencies to be used if unanticipated higher concentrations or wider distributions of PCB remediation waste are found or other obstacles force changes in the cleanup approach. (40 CFR 761.61(a)(3)(i)(D))

Written Certification

- A written certification signed by the owner of the property where the cleanup site is located and the party conducting the cleanup that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site are on file at the location designated in the certificate and are available for EPA inspection. Persons using alternate methods for chemical extraction and chemical analysis for site characterization must include in the certificate a statement that such a method will be used and that a comparison study which meets or exceeds the requirements of Subpart Q of this part, and for which records are on file, has been completed prior to verification sampling. (40 CFR 761.61(a)(3)(i)(E))

B. Part 2 Checklist: EPA Recommended Additional Information to Include in Application

Disclaimer: The RP must comply with all applicable requirements in 40 CFR Part 761. The checklist may not contain all the requirements that apply to PCB remediation waste under 40 CFR 761.61.

The Current Conditions Report mentioned in Section II (Before Submitting a PCB Risk-Based Approval Application) above should include the information described in Sections III.B.1 through III.B.5 below. The Current Conditions Report does not need to include any of the certifications described in Section III.B.1.

1. Executive Summary, Introduction, and Certification

- ☐ Site address
- ☐ Owner and/or operator name and contact information
- ☐ Consultant name, organization, and contact information
- ☐ Brief summary of PCB impacts (impacted media and maximum PCB levels)

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- ☐ Brief description of proposed cleanup option, cleanup schedule date by which cleanup needs to be completed, and reasons for the schedule (e.g., redevelopment)
- ☐ Brief discussion of state or local agency, or community interests in the project, if applicable
- ☐ Certification in 40 CFR 761.3: In addition to the written certification required in 40 CFR 761.61(a)(3)(i)(E), EPA may request the certification also include the language in 40 CFR 761.3, Definition of Certification: "Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete."

2. Site Description

- ☐ Surrounding land uses
- ☐ Current and proposed or planned future land uses
- ☐ Onsite buildings, including age and use plans for the buildings
- ☐ Hydrogeology and depth to ground water
- ☐ Proximity to surface water
- ☐ Storm water runoff and any collection system, and discharges to surface water and other areas
- ☐ Typical weather patterns, climate, and wind rose depicting wind direction and speed
- ☐ Soil types and geological features and characteristics at the site
- ☐ Sources of PCBs and historic operations
- ☐ Other contaminants present such as volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), or metals including a list of those that can enhance mobility of PCBs
- ☐ Current site environmental conditions including extent of PCB contamination onsite and beyond the property boundary
- ☐ Other Site Conditions including:
  - Identification of threatened or endangered species (Endangered Species Act)
  - Identification of any historic or culturally sensitive landmarks (National Historic Preservation Act)
  - Identification of any potentially impacted environments and receptors
- ☐ Sensitive environments such as crops, livestock, wetlands, waterways
- ☐ Sensitive receptors such as children
- ☐ Brief summary of Comprehensive Site-Specific Conceptual Site Model and Data Quality Objectives included under Site Characterization and Data Gaps in Item 5 below

3. Description of PCB "Cleanup Site"

- ☐ Definition of cleanup site in 40 CFR 761.3: "Cleanup site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a cleanup of PCB remediation waste regardless of whether the site was intended for management of wastes." Consistent with this definition, define and describe the "cleanup site" being addressed in the Application

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☐ Describe the need for access for investigation /cleanup beyond impacted property boundary, if applicable

4. Proposed Risk-Based PCB Cleanup Levels

☐ Description and justification of PCB cleanup goals to be applied. Cleanup goals that may be applied include:

- EPA risk-based Regional Screening Levels,
- Site-specific risk-assessment derived values, or
- State or County agency established PCB cleanup levels – EPA's agreement is needed for use of such levels

5. Site Characterization and Data Gaps

☐ Detailed Comprehensive Site-Specific Conceptual Site Model and Data Quality Objectives

☐ Sampling and Analysis Plan (SAP) developed using a site-specific comprehensive conceptual site model and data quality objectives

- Justification for sampling approaches to be followed
- Description of sampling methods for PCB remediation waste which may consist of:

  a. Discrete sampling
  b. Composite sampling
  c. Incremental Sampling Methodology (ISM), if allowed by EPA and made available at the discretion of EPA Regional offices based on site-specific circumstances

- Cleanup levels and detection limits; and description of how detection limits will allow comparison of analytical results to cleanup levels
- Description of methods and procedures:

  a. laboratory methods for sample extraction

  b. procedures for cleanup of sample extracts

  c. procedures for extract analysis

  d. sample collection methods for additional characterization

  e. sample collection methods for cleanup verification samples

  f. types of quality control samples that will be used for the analyses (See Section I.E.11 in this Tool 4 for specific quality control samples)

- Tables summarizing the number and types of samples (including field and laboratory quality control samples) that will be taken for site characterization, cleanup verification, and post-cleanup monitoring (if applicable); sample identification numbers; and sample locations
- Figures and maps depicting sampling locations and cross referencing the sample identification numbers included in the tables
- Description of PCB Aroclors, PCB homologues, and/or PCB Congener methods or combination thereof that will be used for site characterization and/or cleanup verification

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- Description of laboratory analytical data validation methods, including level of data validation
- If ISM is used, all necessary information concerning selection of the type, number, size, and depth of decision units; ISM field replicates; and as applicable, subdivision of original decision units; any processing of ISM samples in the field and/or the analytical laboratory; laboratory quality control samples; statistics to evaluate ISM data; and other information that EPA may recommend for inclusion in the SAP

☐ Vertical and horizontal extent of PCB contamination

- Description of statistical sampling methods used for characterization data and to develop the number and determine the location of characterization samples (e.g., Visual Sample Plan Software)
- Figures depicting the location of sample analytical results to evaluate the spatial distribution of this data
- Description of methods to be used in evaluating site characterization data. Together with the figures described above, data evaluation methods may consist of:

  a. Statistical evaluation (e.g., use of EPA's Pro-UCL statistical program)
  b. Sample by sample comparison to cleanup levels provided an acceptable site characterization sample density was used

- Description of any PCB co-solvency issues (i.e., presence of other contaminants that enhance PCB solubility and/or mobility) and potential PCB migration issues
- Description of surface water protection sampling completed, including sampling of storm drain sediments, soils near storm drain inlet, and water/sediments in surface water body
- Discussion of ground water information (e.g., flow, depth, geologic units), if available; and discussion of any results available for PCBs in ground water, if the ground water was tested for this contaminant
- If ISM is used, a technically sound justification for type, size, depth, and location of decision units chosen for the site as well as any subdivision of any original decision unit(s)

☐ Figures and tables[5]

- Figures depicting the extent of contamination (preferably legible in black and white print)

  a. Figures to scale, with a "North" arrow, depicting sampling locations, depth, sample identification codes, and type of samples (e.g., "D" for discrete)
  b. Figures to scale depicting sampling grid (e.g., 100 sq. feet grid, hexagonal grid)
  c. Figures showing concentration contours of PCB contamination

- Tables summarizing sampling locations, number of samples, sample identification codes, sample depth, field quality control samples, and PCB extraction and analysis methods per sample
- If ISM is used, figures to scale depicting type and size of decision units, sampling grid for each unit, vertical and horizontal extent of decision units, and sample identification codes
- If ISM is used, tables summarizing information for each decision unit and source area. Tables should include information such as type, size, and number of decision units, vertical and horizontal extent

[5] See Tool 4, Item I.E.6, Special Considerations.

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of each unit, increments collected from each unit, ISM sample results for each unit, and ISM field replicates and results and decision unit(s) where field replicates were collected

☐ Identification and Description of Data Gaps

The RP should fill significant data gaps before completing the Application

- Schedule to resolve data gaps
- Propose approach to fill data gaps (also refer to the SAP section in Item 5 above) including:

  a. Sampling and analysis methods intended to fill data gaps
  b. Sampling locations to address vertical and horizontal extent of PCB contamination
  c. Figures to scale, with a "North" arrow, depicting sampling locations, depth, sample identification codes, and type of samples (e.g., "D" for discrete)
  d. Tables summarizing sampling locations, number of samples, sample identification codes, sample depth, field quality control samples, and PCB extraction and analysis methods per sample
  e. If ISM is used, provide the same information described for ISM in "Figures and Tables," under Item 5 (Site Characterization Data Gaps)
  f. If ISM is used, explain if discrete samples will supplement ISM samples. If discrete samples will supplement ISM, provide all the information described in "Figures and Tables," under Item 5 (Site Characterization and Data Gaps) for discrete samples

6. Application and Cleanup Plan

☐ Inclusion of the Notification of PCB Activity Form required in 40 CFR 761, Subpart K

☐ Description of storage for disposal activities that will be carried out, including waste containers that will be used, marking, labeling, and manifesting

☐ Description of disposal methods that will be used

☐ Description and evaluation of cleanup alternatives

1. Soils

   a. Identify, evaluate, and justify cleanup alternatives in addition to excavation and onsite disposal. Among other factors, the evaluation should consider investigation data, risk-based cleanup levels, receptors, sensitive habitats and/or environments, presence of other contaminants that may enhance PCB solubility and/or mobility (PCB co-solvency), and depth to ground water and flow direction
   b. Identify and justify preferred cleanup alternative
   c. Describe cleanup verification sampling methods and include a SAP for this purpose
   d. Describe methods for evaluating cleanup verification sample results
   e. Describe methods for demonstrating compliance with cleanup goals (e.g., statistical methods)
   f. Describe any capping, long-term inspection, maintenance, and repairs expected to occur at the site
   g. Describe any land use covenants that will be used for caps or fences; or when caps and fences are not used and the site is not cleaned up to risk-based unrestricted land use levels
   h. If ISM is used, provide the information described in 1.a through 1.g above for each decision unit

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2. Storm water runoff collection systems, piping, and impacted receiving areas
    a. Identify, evaluate, and justify cleanup alternatives. Among other factors consider human and ecological receptors, surface water impacts, and recreational use
    b. Describe and justify preferred cleanup alternative
    c. Describe methods for debris/sediment removal
    d. Describe post-removal sampling methods
    e. Describe methods for demonstrating compliance with cleanup level
    f. Describe methods for post-cleanup monitoring with routine sediment removal depending on PCB levels
    g. Describe land use restrictions expected to be used at the site, as applicable
3. Surface Water
    a. If applicable, include measures for surface water protection. Also, refer to Section B.2.e (Other Additional EPA Recommended Information) in "Tool 3: TSCA Self-Implementing PCB Cleanups Checklist – 61(a)" and Section III.B.6.2 above in Tool 4 for a description of relevant surface water information that may be included in the Application.
4. Buildings and non-Building structures
    a. Describe risk-based cleanup goals for on-site buildings and structures
    b. Describe decontamination methods for on-site buildings and structures
    c. Describe verification sampling that will be used for non-building structures
    d. Describe verification sampling that will be used for building structures that will remain in use
        1. Description of sampling and analysis methods for substrates
        2. Description of indoor air, bulk dust, and surface wipe sampling and analytical methods
        3. Descriptions of methods that will be used to demonstrate achievement of air target levels
    e. Description of BMPs to be used
    f. Description of land use covenants to be used, if applicable
    g. Description of any contingencies that may apply (e.g., tenant protection in occupied buildings)

7. Decontamination of Tools, Equipment, and Movable Equipment

- ☐ Description of applicable decontamination standards and procedures to be applied. Refer to 40 CFR 761 including but not limited to 40 CFR 761.79 for applicable decontamination standards and procedures

8. Waste Disposal - PCB Remediation Waste and Cleanup Wastes

- ☐ Description of applicable disposal procedures for bulk, porous, non-porous, and liquid PCB remediation wastes that will be implemented. Refer to applicable sections in 40 CFR 761. Also, refer to the disposal portions for PCB remediation wastes in Section B.2.b (PCB Cleanup Plan) in "Tool 3: TSCA Self-Implementing PCB Cleanups Checklist – 61(a)" for a description of relevant disposal procedures that may be included in the Application
- ☐ Description of applicable disposal procedures for cleanup wastes that will be implemented. Refer to applicable sections in 40 CFR 761. Also, refer to the disposal of cleanup wastes portion in Section B.2.b (PCB Cleanup Plan) in "Tool 3: TSCA Self-Implementing PCB Cleanups Checklist – 61(a)" for a description of relevant disposal procedures that may be included in the Application

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9. PCB Cleanup Completion Report

- ☐ Descriptive outline of the PCB cleanup completion report that covers all the PCB cleanup activities completed for the site such as removal of PCB remediation wastes, removal of other PCB containing wastes, cleanup verification sampling and results, data evaluation including statistics, waste storage (as applicable), and waste disposal
- ☐ EPA may recommend additional information that should be included in the PCB cleanup completion report

10. Land Use Restrictions

- ☐ If necessary, a draft land use covenant applicable to the site if contamination remains above the unrestricted cleanup level and/or caps or fences are installed at the site. In the covenant, EPA would be a third-party beneficiary and a state or local agency the signatory. The draft covenant should include all exhibits and attachments for review by EPA and the applicable state or local regulatory agency
- ☐ As applicable, documents that need to accompany the covenant such as a soils management plan; a cap and/or fence inspection, maintenance, and repair plan; summary of remaining PCB concentrations and associated survey coordinates; and other information that EPA may recommend be included in the covenant
- ☐ Final covenant for EPA review and concurrence, if necessary. Typically completed after the application stage, submit the final covenant with all exhibits and attachments for EPA review and concurrence once available
- ☐ A certified full copy of the recorded covenant (including all exhibits and attachments), if necessary. Submit to EPA a certified full copy of the recorded covenant (including all exhibits and attachments) once available

IV. Who to Call with Questions on Tool 4?

If you have questions on this tool, call your EPA Regional PCB Coordinator. Visit https://www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs#pcb to obtain Regional PCB Coordinator contact information.

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