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PUBLIC NOTICE REGARDING PROPOSED PLAN SITE 10 NCBC GULFPORT MS  
5/12/2007  
NCBC GULFPORT

# Proposed Plan for Site 10 – Parade Field Ditch

## Naval Construction Battalion Center Gulfport

### Gulfport, Mississippi

#### NAVY ANNOUNCES PROPOSED PLAN

This Proposed Plan presents the Navy's preliminary recommendation to address *polychlorinated biphenyl (PCB)*\* contaminated soil, sediment and surface water at Site 10, the Parade Field Ditch at Naval Construction Battalion Center Gulfport. This proposed plan was developed by the Navy following U.S. Environmental Protection Agency (USEPA) and the Mississippi Department of Environmental Quality (MDEQ) policies and procedures.

This Proposed Plan summarizes information found in greater detail in the *Remedial Investigation and Feasibility Study at Site 10 – Parade Field Ditch at Naval Construction Battalion Center*, which provides environmental information for the site, identifies the Preferred Alternative, and the other alternatives that were considered. This proposed plan requests public comment on the proposal and provides information on how the public can be involved in the remedy selection process.

The public is invited to comment on this Proposed Plan during the Public Comment Period (see highlight box) beginning on June 12, 2007 and ending on July 12, 2007. This Proposed Plan and other site documents are available for review at the NCBC Gulfport Information Repository. Public comments will be considered in the selection of the final remedy and will be addressed in the Decision Document for the site.

#### SITE BACKGROUND AND HISTORY

NCBC Gulfport is a Navy base located in the western part of Gulfport, Mississippi, in the southeastern part of Harrison County, about two miles north of the Gulf of Mexico.

Site 10, the Parade Field Ditch, was discovered during a base-wide surface water and sediment study in 1997. Site 10 is an 80-foot section of drainage ditch located in the south-central section of NCBC Gulfport that is bordered to the north by a parking area and to the south by the Parade Field.



Site 10 looking towards the west. The most noticeable site feature is a footbridge connecting the Parade Field on the left side of the bridge to the parking lot on the right..

The drainage ditch at Site 10 is approximately 10 feet wide and four feet deep that drains to the west into Canal No. 1. Canal No. 1 leaves NCBC Gulfport at Outfall 1, located near the intersection of Canal Road and 28<sup>th</sup> Street.

#### MARK YOUR CALENDAR

##### **PUBLIC COMMENT PERIOD:** **June 12, 2007 – July 12, 2007**

The Navy will accept written comments on the Proposed Plan during the public comment period.

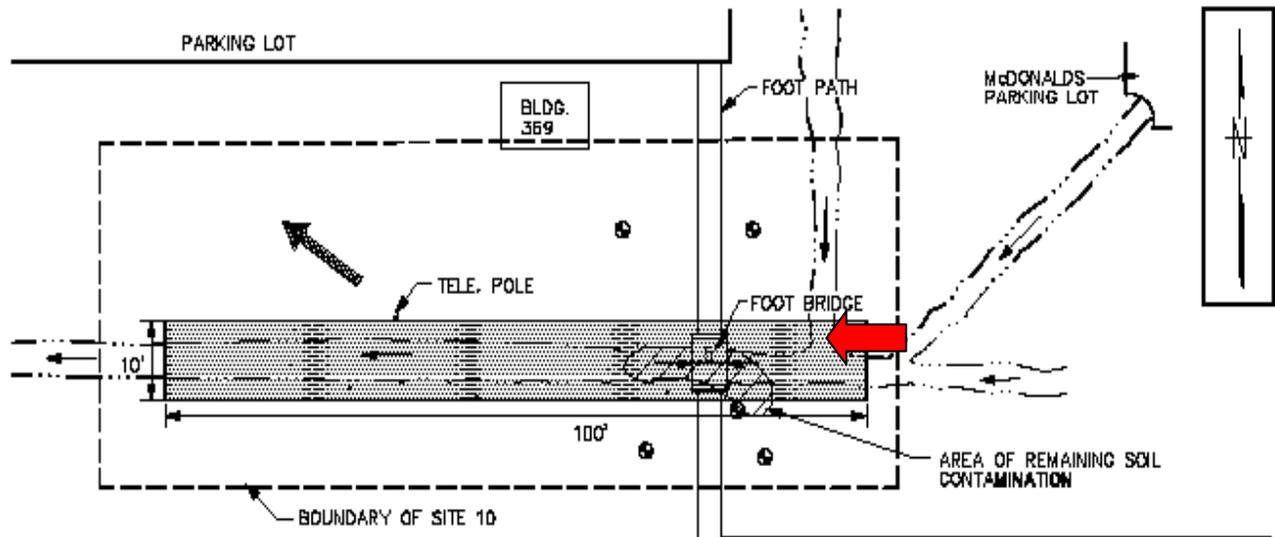
##### **PUBLIC MEETING:** **June 12, 2007**

The Navy will hold a public meeting to explain the Proposed Plan and all of the alternatives presented in the Feasibility Study. Oral and written comments will also be accepted during the meeting. The meeting will be held at the Crystal Inn at the intersection of I-10 and Canal Road in Gulfport, MS

**For more information, see the Administrative Record at the following location:**

XXXXXX  
XXXXXXXXXXXXXX  
Gulfport, MS NNNNN  
(NNN) NNN-NNNN  
Hours: Mon – Sat  
9 a.m. to 9 p.m.

\* Italicized words are defined in the glossary on page 14.



Details of Site 10, are illustrated in the figure above. Site 10 is located just southwest of the McDonalds parking lot on NCBC Gulfport, The red arrow indicates the approximate location from which the photo on the previous page was taken.

The PCB contamination at Site 10 is restricted to the bottom of the ditch and was found to extend about 80 feet west (or downstream) from the footbridge. The types of PCBs found indicated that the source of the contamination was old electric utility transformer oils. The transformer oils were likely spilled into the ditch near the footbridge.

These findings prompted a series of source removal excavations in 1999 that resulted in the removal of approximately 200 tons of sediment from the source area (near the footbridge). Confirmation sampling showed that the excavation successfully removed the PCB contamination at the surface which greatly reduced the risk of exposure to people in the area. However, confirmation sampling also showed that PCB contamination at greater depths below the ditch would still need to be addressed.

## SITE CHARACTERISTICS

In response to the confirmation sampling described above, the Navy conducted a more comprehensive Remedial Investigation and Feasibility Study (RI/FS) to fill data gaps from previous investigations and to evaluate possible remedies for the site. In this study, soil, surface water, sediment, and groundwater samples were collected and analyzed to evaluate the

nature and extent of PCBs as well as other contaminants that could have been released at the site.

THE RI/FS identified PCBs as the *Contaminant of Concern (COC)* at Site 10. (See “Identification of COCs” below for more information.) A summary of the findings follow:

- PCBs were detected throughout the soil of Site 10 with concentrations ranging from 11 to 83,000 *micrograms per kilogram (µg/kg)* and detections at depths up to 14 feet below the ground surface.
- PCBs were also detected in *sediment* at concentrations ranging from 65 to 710 µg/kg.
- PCBs were detected in one Site 10 *surface water* sample at a concentration of 1.1 microgram per liter (*µg/L*).
- In all, an estimated 450 cubic yards of contaminated soil/sediment containing 33 pounds of PCBs is present at Site 10
- PCBs were not detected in Site 10 *groundwater*.

## SCOPE AND ROLE OF THE ACTION

The remedy proposed in this plan is intended to be the final action for Site 10. The selected alternative will prevent current and future exposure to PCB-contaminated soil and sediment at the site. Further, it is assumed that the remedial actions taken to address soil and sediment will indirectly address surface water contamination by removing the continuing source of contamination (i.e., the contaminated sediment).

## SUMMARY OF SITE RISKS

The Risk Evaluation for Site 10 included:

- Identification of Contaminants of Concern (COCs),
- An exposure assessment, and
- An ecological risk evaluation.

**Identification of COCs:** Contaminants found at the site were evaluated in two steps. The first step (the Tier I evaluation) involved comparing sampling results to MDEQ's established Target Cleanup Goals (TRGs). These TRGs values are the concentration of contaminants that MDEQ considers to be protective of human health and the environment.

The contaminants identified in the Tier I Risk Evaluation were then subjected to a more site-specific evaluation. After this step, **only PCBs were retained for further evaluation for this site.**

**Exposure Assessment:** An exposure assessment evaluates whether or not there is a mechanism for humans and/or other biological organisms (referred to collectively as "receptors") to come into contact with the contaminant of concern (in this case, PCBs). For Site 10, the assessment determined that there is a potential for exposure to PCBs if remedial action was not taken.

**Ecological Risk Evaluation:** The potential risk posed to ecological receptors was evaluated following EPA Screening Level Ecological Risk Assessment criteria. This evaluation involved comparing samples results to EPA Region IV screening criteria. Based on this comparison, PCBs were found to be the sole contaminant of concern for the ecological risks at the site. Potential ecological

risks from other contaminants were low and only found in isolated locations.

Taken as a whole, the Summary of Site Risks indicated that the current environmental situation at Site 10 poses a low, but unacceptable risk for exposure for both human and ecological receptors. Given this situation, it was agreed that a remedial action must be taken that meets the objectives discussed below.

## REMEDIAL ACTION OBJECTIVES

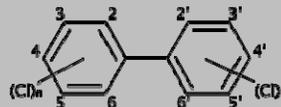
The *Remedial Action Objectives (RAOs)* are essentially the cleanup goals for the site. For Site 10 the following objectives were identified:

**RAO 1:** Prevent direct exposure to the soil with PCB concentrations greater than 1,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ).

**RAO 2:** Prevent transport of PCBs through erosion into the drainage channel system.

**RAO 3:** Comply with Federal and State legal requirements and guidelines, (referred to as

### Polychlorinated Biphenyls (PCBs)



PCBs are a group of organic chemicals that can cause a number of different harmful effects. There are no known natural sources of PCBs in the environment. PCBs are either oily liquids or solids and are colorless to light yellow. They have no known smell or taste. Because they do not burn easily and are good insulating materials, PCBs were used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment.

The manufacture of PCBs stopped in the United States in August 1977 because of evidence that PCBs build up in the environment and may cause harmful effects. Once in the environment, PCBs do not readily break down and therefore may remain for very long periods of time. PCBs attach strongly to soil and will not usually be carried deep into the soil with rainwater. They do not readily break down in soil and may stay in the soil for months or years.

Studies have linked PCBs with certain types of cancer in humans. Based on the evidence for cancer in animals, the Department of Health and Human Services (DHHS) has stated that PCBs may reasonably be anticipated to be carcinogens. Both USEPA and the International Agency for Research on Cancer have determined that PCBs are probably carcinogenic to humans.

Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBC) guidelines).

The cleanup goals are the chemical concentrations that will be achieved by the cleanup action. For this site, the goal is based on MDEQ's soil TRGs. Therefore, 1,000 micrograms per kilogram (µg/kg) will be the target cleanup concentration for PCBs in the soil and sediment at Site 10.

Any surface water concerns will be addressed by cleaning up the source of the PCBs in the soil and sediment.

Due to the relatively small volume of contaminated material identified at Site 10, cleanup of soil and sediment will be combined. Moreover, soil is assumed to be similar to sediment because subsurface soil is saturated.

**MDEQ's Target Cleanup Goals (TRGs) for PCBs**

The State of Mississippi lists TRGs for both restricted (industrial) and unrestricted (residential) land use. Site 10 is located due south of the base mess hall and to the southwest of McDonald's.

Because of Site 10's proximity to these public locations, unrestricted (residential) TRGs are deemed appropriate for remedial consideration. The State of Mississippi unrestricted TRG for PCBs in soil is 1,000 micrograms per kilogram (µg/kg), and this value is selected as the cleanup goal for soil and sediment at Site 10.

**SUMMARY OF REMEDIAL ALTERNATIVES**

The following summarize the remedial alternatives developed for Site 10:

**Alternative 1: No Action**



A "no action" alternative is always used as a baseline for comparison with other alternatives. This alternative assumes that no changes would be made to the existing conditions at the site.

**Alternative 2: Restricted Access**

This alternative uses restricted access to prevent exposure to PCB contaminated soil and sediment. Institutional controls such as fencing would be used to



limit access to soil with concentrations of PCBs greater than 1,000µg/kg and controlling future land use. Site controls would be developed and implemented to prevent residential development of Site 10. Signs would be posted to warn against unauthorized digging activities.

The site would be monitored to detect potential movement of PCBs. Monitoring would consist of annually collecting samples of sediment and surface water and analyzing these samples for PCBs.

Every 5 years, the status of the site would be formally reviewed and evaluated to determine the continued effectiveness of this alternative.

**Alternative 3: Concrete Cover**

This alternative involves covering PCB contaminated soil and sediment with concrete as a barrier to prevent exposure to human and ecological receptors.



As part of this action, approximately 85 linear feet of the drainage channel would be lined with a 9-inch-thick layer of concrete and/or rip rap and approximately 27 square yards of soil would be paved. Because direct contact with contaminated soil and sediment would be prevented by installing this barrier, fencing at Site 10 would not be needed. Additionally, a new pedestrian bridge would be constructed across the drainage channel to replace the one removed.

Site controls would prevent residential development of Site 10 and signs would be posted to warn against unauthorized digging activities. Periodic inspections would be required to ensure that the integrity of the barrier.

Monitoring would consist of annually collecting soil and sediment samples downstream of the concrete cover and analyzing these samples for PCBs to detect potential migration of PCBs.

Every 5 years, the status of the site would be formally reviewed and evaluated to determine the continued effectiveness of this alternative.

#### **Alternative 4: Excavation and Disposal**

This alternative involves the removal of the nearly 450 cubic yards of soil with concentrations of PCBs greater than 1,000



$\mu\text{g}/\text{kg}$ . The area to be excavated would be cleared and the pedestrian bridge would be removed.

After the soil has been removed,

sampling activities will be used to confirm the successful removal of contaminated material. The site will be restored by backfilling with clean soil and native vegetation would be planted. Additionally, a new pedestrian bridge would be constructed across the drainage channel.

Excavated soil would be transported and disposed at a permitted off-site landfill or *Treatment Storage or Disposal Facility (TSDF)*. Long term monitoring would not be required since the source of the PCB contamination would be removed.

The following sections present the evaluation criteria used to select the *preferred alternative*.

### **EVALUATION OF ALTERNATIVES**

The remedial alternatives were compared against each other to determine the most effective method for cleaning up Site 10. The following is a summary of these comparisons:

#### **Overall Protection of Human Health and Environment**

Alternative 1 would not be protective of human health and the environment because PCBs would remain at concentrations in soil in excess of its PRG.

### **EVALUATION CRITERIA FOR CLEANUP ALTERNATIVES**

***Overall Protectiveness of Human Health and the Environment*** determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

***Compliance with ARARs*** evaluates whether the alternative meets Federal and State environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.

***Long-term Effectiveness and Permanence*** considers the ability of an alternative to maintain protection of human health and the environment over time.

***Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment*** evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

***Short-term Effectiveness*** considers the length of time needed to implement an alternative and the risk the alternative poses to workers, residents and the environment during implementation.

***Implementability*** considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

***Cost*** includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

***State/Support Agency Acceptance*** considers whether the State agrees with the Navy's analyses and recommendations, as described in the RI/FS and Proposed Plan.

***Community Acceptance*** considers whether the local community agrees with the Navy's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

Although Alternative 2 would allow PCB concentrations to remain in soil and to possibly continue to migrate from contaminated areas, it would provide some protection by restricting access to the site through fencing and site restrictions and

would provide warning of potential contaminant movement through monitoring. Alternative 2 would not be protective to all ecological receptors.

Alternative 3 would be more protective than Alternative 2 because it would essentially eliminate the potential for exposure to PCBs. The construction of the concrete cover in with the other site controls would eliminate direct contact with PCB-contaminated soil and sediment. Moreover, the surface protection would prevent the potential movement of contaminants through the drainage channel system by erosion.

Alternative 4 would provide the highest level of protection because contaminated soil would be removed from its present location and would be transported to an approved TSDF.

**Compliance with (ARARs) and To Be Considered (TBCs) guidelines**

ARARs and TBCs establish the regulatory constraints of the cleanup. See the highlight box on the right for more information about ARARs.

**Chemical-Specific Requirements:** An assessment of the regulations shows that only Alternative 4 complies with the chemical-specific requirements at the site. Alternative 1 would not comply with chemical-specific ARARs because unacceptable levels of PCBs would remain in the soil. Alternatives 2 and 3 would not comply with chemical-specific ARARs and TBCs due to the pervasiveness of PCBs through the environment.

**Action-Specific Requirements:** Alternatives 2, 3, and 4 all comply with action-specific requirements. Alternative 1 was not evaluated for action-specific requirements because no action is recommended for that alternative.

**Location-Specific Requirements:** There are no location-specific ARARs identified for Site 10.

**Long-term Effectiveness and Permanence**

Alternative 1 would not have long-term effectiveness or permanence.

Alternative 2 would provide some long-term effectiveness and permanence because fencing and

**What are ARARs?**

ARARs stands for “Applicable or Relevant and Appropriate Requirements.” These are the legal requirements that must be met to clean up the site.

Three types of legal requirements are addressed in a cleanup action:

**Chemical-specific ARARs** address concentrations of contaminants that must be cleaned up. The MDEQ Target Cleanup Goals are the defining chemical-specific ARAR for Site 10.

**Action-specific ARARs** regulate how a cleanup remedy is implemented. Regulations define where and how contaminants are managed.

**Location-specific ARARs** address legal issues for special locations such as wetlands and tribal lands. There are no location-specific ARARs for Site 10.

site controls would reduce exposure to contaminated soil, and monitoring would provide indication of PCBs migration.

Alternative 3 would be more effective and permanent than Alternative 2 in the long term. Surface protection would be more effective and permanent than fencing in preventing direct contact with contaminants and preventing the erosion of PCBs through the drainage channel system. Inspection, maintenance, and repair of the surface protection would need to be conducted to ensure its continued structural integrity and effectiveness.

Alternative 4 would be the most long-term effective and permanent remedy. Under this alternative, contaminated soil would be removed from its present location and treated, as required, for ultimate disposal at a TSDF.

**Reduction of Toxicity, Mobility, or Volume**

Alternatives 1 and 2 would not achieve any reduction of toxicity, mobility, or volume of PCB-contaminated media through treatment.

While Alternative 3 would not achieve any reduction of toxicity or volume of PCB-contaminated soil and sediment, it would significantly reduce PCB mobility because PCB-contaminated soil and sediment would be contained under the surface protection. In addition, here would be some construction debris associated with this alternative.

Similarly, Alternative 4 would not achieve any reduction of toxicity or volume of PCB-contaminated media through treatment. However, Alternative 4 would reduce PCB mobility through off-site chemical stabilization. Contaminated wastewater might be generated by the sediment dewatering step, but it is anticipated that this wastewater could be discharged to surface water without treatment. There would also be construction debris associated with this alternative.

### **Short-term Effectiveness**

Implementation of Alternative 1 would not result in risks to site workers or adversely impact the surrounding community or environment because no remedial activities would be performed. Alternative 1 would never achieve the Remedial Action Objectives, and although the PCB Preliminary Remediation Goal of 1,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) might eventually be attained through natural attenuation processes in the very long term, this occurrence would not be verified.

Implementation of Alternative 2 would result in a slight possibility of exposing site workers to PCB contamination during long-term monitoring activities. However, the risk of exposure would be effectively controlled through compliance with proper site-specific health and safety procedures. Implementation of Alternative 2 would not adversely impact the surrounding community or environment. Alternative 2 would be expected to achieve the RAOs immediately upon implementation of institutional controls and monitoring.

Implementation of Alternatives 3 and 4 would result in the possibility of exposing construction workers to PCB contamination during remedial activities. However, the risk of exposure would be effectively controlled by the implementation of engineering controls (e.g., dust suppression) and compliance with applicable OSHA regulations and proper site-specific health and safety procedures. Implementation of Alternative 4 would potentially impact the surrounding community because approximately 28 truckloads of PCB-contaminated material would be transported over public roads. However, the potential for adverse impact would be effectively addressed through implementation of such appropriate measures as decontamination of transport vehicles, traffic control, and spill prevention and emergency response. Alternatives 3 and 4 would be expected to

achieve the RAOs immediately upon removal of the contaminated soil. Alternative 4 would also achieve Preliminary Remediation Goals upon implementation.

It is anticipated that Alternatives 2, 3, and 4 can be implemented in 1 day, 3 days, and 13 days, respectively.

### **Implementability**

Alternative 1 would be extremely simple to implement because no action would occur.

The technical implementability of Alternative 2 would also be very simple because it would only require implementation of site controls and monitoring.

The technical implementability of Alternative 3 would be somewhat more difficult than that of Alternative 2. In addition to site controls and long-term monitoring, this alternative would require the use of surface water controls, excavation, and surface protection. However, these activities would be technically implementable. Resources, equipment, and materials are readily available to perform the tasks associated with Alternative 3. Alternative 4 would be somewhat harder to implement, although resources, equipment, and materials are readily available to perform the excavation, dewatering, and transportation activities.

Administratively, Alternatives 2 and 3 would require the development and implementation of land use controls and the performance of long-term monitoring and 5-year site reviews. Under Alternatives 3 and 4, off-site transportation of the excavated soil may require the preparation and implementation of a traffic control plan and would require the completion of waste manifests. Off-site treatment and disposal of the excavated soil would require prior securing of waste acceptance from the TSDF. Alternatives 3 and 4 would require a base permit to conduct remedial activities, manifesting of the material to be transported off base, and formal acceptance of this material by the off-base disposal facility. These administrative requirements could readily be met. Alternative 4 would not require site controls, long-term monitoring, or 5-year reviews because all soil with

concentrations greater than 1,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), would be removed from Site 10.

### **Cost**

The capital and total costs including monitoring and operation and maintenance (O&M) of the remedial alternatives were estimated to be as follows:

Alternative	Capital	Total
1	\$0	\$0
2	\$22,000	\$100,000
3	\$42,000	\$111,000
4	\$421,000	\$421,000

The above cost figures have been rounded to the nearest \$1,000 to reflect the preliminary nature of these estimates.

### **PREFERRED ALTERNATIVE**

The Preferred Alternative for cleaning up Site 10, the Parade Field Ditch is Alternative 4: Surface Water Controls, Excavation, Dewatering, Off-Site Treatment and Disposal. The Navy believes the alternative will adequately protect human health and the environment, attain all federal and state requirements (including ARARs), and is cost effective, implementable, and effective.

The USEPA and MDEQ concur with the recommended alternative. However, the Navy, in conjunction with the USEPA and MDEQ, will not select a final alternative until public comments have been considered.

### **COMMUNITY PARTICIPATION**

The public is encouraged to participate in the decision-making process for the cleanup by reviewing and commenting on this Proposed Plan during the Public Comment Period.

Additional information on this site can be found in the *Remedial Investigation and Feasibility Study at Site 10 – Parade Field Ditch at Naval Construction Battalion Center* and other Site 10 documents. These documents are available in the NCBC Gulfport Information Repository.

The dates for the public comment period, the date, location and time of the public meeting, and the locations of the Administrative Record files, are provided on the front of this Proposed Plan.

## Glossary

**Applicable or Relevant and Appropriate Requirements (ARARs):** ARARs are the federal and State environmental requirements used to define the appropriate extent of site cleanup, to identify sensitive land areas or land uses, to develop remedial alternatives, and to direct site remediation. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) require remedial actions to comply with State ARARs when they are more stringent than federal ARARs. Three types of ARARs are defined (see separate definitions): chemical-specific, location-specific, and action-specific.

**Action-specific ARARs:** These requirements pertain to the proposed site remedies and governing the implementation of the selected site remedy.

**Background Concentrations:** Concentrations of a contaminant found in areas surrounding a site but not specifically related to the site in question.

**Chemical-specific ARARs:** These requirements control the extent of site remediation with regard to specific contaminants and pollutants.

**Contaminant(s) of Concern (COC):** The contaminant(s) at a site which are present in concentrations determined by the human health and/or ecological risk assessment to require further study and/or cleanup.

**Location-specific ARARs:** These requirements govern site features such as wetlands, floodplains, and sensitive ecosystems (including features of historical significance).

**Groundwater:** Water beneath the earth's surface, often between saturated soil and rock, that supplies wells and springs.

**Micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ):** One microgram per kilogram is the same as one part per billion (ppb). For Site 10, 1  $\mu\text{g}/\text{kg}$  would represent one unit of PCB in 1,000,000,000 units of soil.

**Milligrams per kilogram ( $\text{mg}/\text{kg}$ ):** One milligram per kilogram is the same as one ppm. At Site 10 1  $\text{mg}/\text{kg}$  would represent one unit of PCB in 1,000,000 units of soil or sediment.

**Micrograms per liter ( $\mu\text{g}/\text{L}$ ):** A similar relationship exists for water samples because 1 liter of water weighs approximately 1 kilogram, if you ignore the small density differences between pure water and the majority of environmental samples. Thus, 1  $\text{mg}/\text{L}$  is equivalent to 1 ppm.

**Polychlorinated biphenyl (PCB):** PCBs are a group of organic chemicals that can cause a number of different harmful effects. There are no known natural sources of PCBs in the environment. PCBs are either oily liquids or solids and are colorless to light yellow. They have no known smell or taste. Because they do not burn easily and are good insulating materials, PCBs are used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. (See text box on page or more information).

**Polynuclear aromatic hydrocarbons (PAHs):** Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot. Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

**Preferred Alternative:** The remedy recommended by the Navy for cleaning up a site. The remedy may be modified or changed based on comments received during the Public Comment Period.

**Remedial Action Objectives:** The cleanup goals for the site.

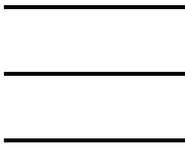
**Sediment:** Soil deposited in surface water bodies such as ditches, streams, or lakes.

**Surface Water:** Water bodies that are on land surface such as lakes, river, streams, and ditches.

**TBCs:** TBC guidance criteria are federal and State non-promulgated advisories or guidance that are not legally binding and do not have the status of potential ARARs. However, if there are no specific ARARs for a chemical or site condition, or if ARARs are not deemed sufficiently protective, then guidance or advisory criteria should be identified and used to ensure the protection of human health and the environment.

**Treatment Storage or Disposal Facility (TSDF):** A facility permitted by the EPA to safely manage hazardous waste.





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Fold, staple, stamp, and mail -----  
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Place  
Stamp  
Here