

REDACTED

**SEVENTH FIVE-YEAR REVIEW REPORT
FOR
TRIANA/TENNESSEE RIVER SUPERFUND SITE
TRIANA/HUNTSVILLE MORGAN, MADISON, AND LIMESTONE COUNTIES, ALABAMA**



July 2025

Prepared by

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LIST OF ABBREVIATIONS & ACRONYMS

ADEM	Alabama Department of Environmental Management
ADPH	Alabama Department of Public Health
ARAR	Applicable or Relevant and Appropriate Requirement
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
COCs	Contaminants of Concern
DD	Decision Document
DDD	Dichloro-diphenyl dichloroethane
DDE	Dichloro-diphenyl dichloroethylene
DDT	Dichloro-diphenyl trichloroethane
DoA	Department of the Army
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
FDA	United States Food and Drug Administration
FYR	Five-Year Review
HSB-IC	Huntsville Spring Branch-Indian Creek
IC	Institutional Control
MCL	Maximum Contaminant Level
µg/L	Micrograms per Liter
mg/kg	Milligrams per Kilogram
NCP	National Contingency Plan
NPL	National Priorities List
OU	Operable Unit
O&M	Operations and Maintenance
ppm	Parts per million
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RSA	Redstone Arsenal
RSL	Regional Screening Level
SAC	Site Access Control
TBC	To-Be-Considered
TVA	Tennessee Valley Authority
USACE	US Army Corp of Engineers
USFWS	United States Fish and Wildlife Service

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is, and will continue to be, protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The Alabama Department of Environmental Management (ADEM) is preparing this FYR for the U.S. Environmental Protection Agency (EPA) pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 121, consistent with the National Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the seventh FYR for the Triana/Tennessee River Superfund Site (the Site or Triana). The triggering action for this review is the signing of the previous review dated July 27, 2020. This FYR has been prepared as a policy review since the remedial action at the Site is considered a pre-Superfund Amendments and Reauthorization Act (SARA) action, as its overarching legal framework, the Consent Decree, was entered on May 31, 1983, well before SARA's enactment in 1986, though hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of one operable unit (OU) that addresses the entire site, which will be evaluated in this FYR.

The FYR was led by the EPA remedial project manager (RPM) Do Hyong Kim. Relevant entities including the responsible parties were notified of the initiation of the FYR. The review began with the initial site visit with the ADEM, US Army, and Olin personnel on December 16, 2024. Participants included Kenneth Prestridge and Mary Catherine Muscha from ADEM, Do Hyong Kim, Ph.D., P.E. (RPM) from the US EPA, Drew Wirwa and Steve Alexander of the US Fish and Wildlife Service (USFWS), Matthew Berry, Jason Braxton, Holly Gallier, and Clint Howard from Redstone Arsenal (RSA), Skip Markham from the Tennessee Valley Authority, and Julie Peoples from Olin Corporation (Olin).

Site Background

The Triana/Tennessee River site is located in Morgan, Madison and Limestone counties in northern Alabama. The site includes an 11-mile reach of the Huntsville Spring Branch and Indian Creek (HSB-IC) tributaries of the Tennessee River. The site is located completely within the Wheeler National Wildlife Refuge and the Redstone Arsenal (RSA).

The Calabama Chemical Company leased the former dichloro-diphenyl trichloroethane (DDT) manufacturing plant site from Department of the Army (DoA) in 1947. Olin Chemical purchased Calabama and operated the DDT manufacturing plant from 1954 to 1971. The manufacture of DDT and other pesticides resulted in significant amounts of pesticide contamination as waste product at RSA. Thousands of pounds of contaminated wastes were buried on landfills throughout the RSA, which are being addressed under a Resource Conservation and Recovery Act (RCRA) permit. Some of the cleanup

at RSA conducted by the Army has been overseen by both the EPA and ADEM; cleanup is currently being conducted solely under the RCRA permit with state oversight. The EPA continues to try to negotiate a Federal Facility Agreement to comply with the statutory mandate in CERCLA Section 120(e)(4) to sign an interagency agreement. In addition to solid waste, Olin and the Calabama Chemical Company discharged large quantities of contaminated wastewater to surface water through the RSA drainage system into the HSB-IC water system. Over time, stream sediments became contaminated with an estimated four-hundred and seventeen (417) tons of dichloro-diphenyl-dichloroethane (DDD). Pollution of the tributaries resulted in an increased frequency of fish kills. Sampling by the Tennessee Valley Authority (TVA) indicated that through bioaccumulation, many fish tissue samples contained elevated levels of DDT.

Later sampling by the Federal Water Pollution Control Administration and the EPA confirmed the presence of DDT contamination in surface water.

Olin ceased the manufacture of DDT in 1971, and the plant was demolished by the DoA in 1971. In 1977, the DoA initiated an extensive DDT abatement program to clean up DDT contamination upgradient and north of the Site at the former DDT manufacturing plant to minimize exposure and migration of DDT from RSA. Highly contaminated soil, sediments, and DDT wastes from the DDT manufacturing area that included the old DDT drainage ditch, lagoon and former DDT disposal area were excavated and placed in a clay-lined landfill. The DoA also filled and sealed the DDT settling pond and installed a new drainage ditch with check dams to divert surface water flow. In addition, the DoA dismantled and demolished the manufacturing plant structures, floor drains, conduits and industrial sewers; plugged industrial sewer manholes with concrete, and demolished manhole structures. The DoA placed a 6-inch compacted clay/6-inch topsoil layer over the former plant area and seeded. The DoA completed DDT abatement activities in August 1984.

The EPA and the State of Alabama filed a formal complaint against Olin in December 1980 and amended it in February 1982. The complaints alleged that DDT discharged from the manufacturing plant had created an imminent and substantial endangerment to human health and the environment in the HSB-Indian Creek system. The EPA proposed the Site for the National Priorities List (NPL) on December 30, 1982, and finalized it on the NPL on September 8, 1983.

Appendix A includes a list of references used for this FYR. Appendix B includes the Site's current status. Appendix C includes a site chronology. Appendix D includes additional background information about the Site, including site history and physical characteristics. Appendix E includes site figures. Appendix F includes Data Review of supporting documentation. Appendix G is the Public Notice of the FYR. Appendix H includes the Site Inspection Checklists and Interview Forms. Appendix I is Site Photos. Appendix J is ARARs Reviews. Appendix K is Institutional Controls.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Triana-Tennessee River Superfund Site		
EPA ID: ALD983166299		
Region: 4	State: AL	City/County: Triana and Huntsville/Limestone, Madison, and Morgan
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name: Kenneth L. Prestridge Do Hyong Kim, Ph.D., P.E.		
Author affiliation: Alabama Department of Environmental Management (ADEM) U.S. Environmental Protection Agency (USEPA)		
Review period: 10-01-24 – 05-01-25		
Date of site inspection: December 16, 2024		
Type of review: Policy		
Review number: 7		
Triggering action date: 07/27/2020		
Due date (five years after triggering action date): 07/27/2025		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

Based on prior sampling results from the 1960s and 1970s, the EPA and the ADEM determined that soil, sediment, groundwater, surface water and ingestion of fish could potentially harm people in the area. A baseline risk assessment was not conducted for the Site as CERCLA risk assessment guidance had not yet been established. However, in 1980 the United States Army Corps of Engineers (USACE) prepared an environmental impact statement (EIS) to address issues and environmental impacts associated with the proposed Remedial Action Plan. The EIS examined the distribution of DDT in sediment, the water column and biota and the potential environmental transport of DDT. The findings concluded that nearly 93 percent of the total DDT, including DDT and its metabolites dichloro-diphenyl

dichloroethylene (DDE) and DDD, in the HSB-IC system is contained within HSB Reach A, with significantly less, 4 percent, in HSB Reach B and the remaining 3 percent within Indian Creek Reach C. The research also concluded that DDT had accumulated in fish in concentrations exceeding the United States Food and Drug Administration (FDA) action level of 5 parts per million (ppm). In addition, the research determined that DDT is transported within the sediment as suspended particles in surface water in HSB-Indian Creek and the major source of DDT uptake by fish is through the water column, while fish uptake of DDT through their food was determined to be much less significant. Based on these findings the USACE concluded that reducing DDT concentration in the water column would significantly reduce DDT concentrations in fish and other organisms. Table 1 summarizes the COCs identified as impacting the Site.

Table 1. COCs and Performance standard for Groundwater

Contaminant of Concern	Performance Standard from Consent Decree (µg/L)	Media	Applicable Standards
DDT	5	Fish Fillet (channel catfish, largemouth bass, smallmouth buffalo)	US FDA action level

Response Actions

In accordance with CERCLA and the NCP, the overriding goal for any remediation action is the protection of human health and the environment and compliance with applicable or relevant and appropriate requirements (ARARs). A number of remedial alternatives were considered for the Site. On May 31, 1983, the US District Court entered a Consent Decree, as part of an order settling litigation against Olin, governing remedial action for DDT contamination in the HSB-IC system. As the Site's PRP, Olin was responsible for implementing remedial work to meet the Site's performance standard and the goals and objectives outlined in the Consent Decree. As part of the Consent Decree, a Review Panel was formed to provide oversight of all remedial plans and actions enacted by Olin; the Review Panel consists of five voting members and two non-voting members. The voting members include the EPA, TVA, USFWS, USACE, and ADEM. The two non-voting members include the Town of Triana and Olin. The Review Panel was established in June 1983, and the EPA finalized the Site on the NPL in September 1983.

The Consent Decree also established the role of the Review Panel as a required body to provide technical review and oversight of all proposals and actions by Olin to ensure that requirements in the Consent Decree are fulfilled. So far, the Review Panel has issued 14 Decision Documents to which Olin must adhere. The dates for the Decision Documents are included in Appendix A: Reference List. These Decision Documents reflect events such as modifications to the remedy and attainment of the performance standard, but they do not supersede or alter the requirements of the Consent Decree.

Final remedy selection was made in accordance with the Site's 1983 Consent Decree and based on the review of a remedial plan and supporting documents that was submitted by Olin to the Review Panel. Factors to be considered by the Review Panel included the following:

- The nature of the endangerment to human health and the environment, which the remedial action was designed to address.
- The extent to which implementation of the remedial action would reduce or increase endangerment to human health or the environment or would otherwise affect human health or the environment.
- Whether implementation of such remedies is unnecessary to satisfy or is inconsistent with the goals, objectives and performance standard set forth in the 1983 Consent Decree.
- Whether the remedy chosen was the most cost-effective means of accomplishing the performance standard set forth in the Consent Decree.

The Review Panel selected DDT concentrations in fish tissue as the performance standard for monitoring the effectiveness of the remedy in reducing DDT in the surface water column; the performance standard also served as a metric for evaluating risk to both human health and the environment.

The remedy required sampling of fish tissue for three species: Channel Catfish, Largemouth Bass, and Smallmouth Buffalo fish. The Consent Decree required that the fish tissue must meet the performance standard of 5 ppm of DDT for at least one year (initial attainment) within a 10-year period after construction and implementation of the remedial action, primarily focused on addressing sediment contamination. The remedial action involved diverting stream flow around polluted areas of the HSB-IC tributaries and excavating new channels, backfilling and burying contaminated material in parts of the original stream channel, along with constructing diversion structures to prevent water from re-entering the former channel and to manage stormwater off. The Consent Decree defined initial attainment as an average concentration of DDT of 5 ppm or less in the fish fillets for one year for each monitored fish species in each reach A, B, and C of the HSB-IC system¹.

Consent Decree requirements stipulated once initial attainment was achieved, Olin must demonstrate “continued attainment²,” where the performance standard must be met for three consecutive years. Once continued attainment is achieved for all species in all three reaches, the Consent Decree required Olin to operate and maintain the Site for a period of seven years. After Olin (1) demonstrates to the Review Panel continued attainment of the performance standard and (2) demonstrates to the reasonable satisfaction of the Review Panel that the remedy(ies) implemented pursuant to this Consent Decree has provided, is providing and will continue to provide achievement of the performance standard once this Consent Decree terminates, Olin shall operate or maintain such remedy(ies), as set forth in paragraph 28, for a period of seven additional years. At the conclusion of this seven-year period, if Olin is in compliance with the provisions of this Consent Decree and the

¹ These reaches, established in the Consent Decree, are as follows: the HSB-IC System is divided into three reaches: Reach A, Reach B, and Reach C. Reaches A, B, and C are described in the Consent Decree, paragraph 2, as follows:

Reach A - Begins at HSB Mile (HSBM) 5.4 and extends to HSBM 2.4;

Reach B - Begins at HSBM 2.4 and extends to HSBM 0.0; and

Reach C - Begins at ICM 5.6 and extends to ICM 0.0.

²See *Joint Technical Proposal to Implement Remedial Activities Pursuant to Consent Decree*, May 31, 1983, paragraph 7.3.2. *Measurement of Performance Standard*.

performance standard, Olin shall be deemed to have completely fulfilled all of its obligations hereunder, and this Consent Decree shall terminate³.

Status of Implementation/Remediation

Construction of remedy actions for addressing sediment contaminations began in 1986 and was completed in 1987. This remedy involved diverting stream flow around contaminated portions of the HSB-IC tributaries, excavating new channels, and removing some contaminated sediments while other contaminated sediments were addressed through natural attenuation and continued in-place silting. These actions were supported by diversion barriers and erosion controls/riprap to help prevent the resuspension of DDT into the water column. In 1997, the Review panel determined that groundwater monitoring could cease because sampling identified no significant impacts to groundwater following the remedial action. Surface water and fish sampling continued at the Site in order to track progress toward meeting the performance standard and requirements outlined in the Consent Decree. In December 2003, the review panel determined that sediment studies would be valuable in monitoring the effectiveness of the remedial action. A review of sediment levels was completed in 2004 and sediment sampling for DDT was completed in 2005. The sediment sampling results indicated that the DDT results were considerably lower than the baseline data and that natural attenuation was occurring to include covering of the sediments with lower concentrations of DDT, mixing and dilution, and degradation. Based on the review of the sediment data, the Review Panel determined that no additional remediation or further investigation of sediments was necessary.

Fish tissue remained the only performance standard yet to reach full attainment of the established goals set forth in the Consent Decree. By 1998, only largemouth bass attained the performance standard of continued attainment of 5 ppm in all three reaches (attained in 1994). In December 1998, the Court allowed Olin a five- and 10-year extension to attain the performance standard for channel catfish and smallmouth buffalo fish species, respectively. In 2003, channel catfish met the continued attainment requirement in all three reaches. The only species that had not attained the continued attainment standard was the smallmouth buffalo. It met the performance standard in reach B and C and met it in Reach A in 2009 and 2010, failed in 2011 and 2012, then met standards in 2013, 2014, and in the 2015 fish tissue sampling events. Due to personnel changes and other factors, the 2015 sampling was not reviewed and vetted by the technical committee until March 20, 2019, at a joint meeting of the technical committee with the Review Panel at EPA Region IV headquarters in Atlanta, GA. This resulted in the technical committee recommending acceptance of the 2015 sampling results which the Review Panel accepted the latest Decision Document to recognize that continued attainment has been met for all three fish species for all three reaches. In December 2020, the Review Panel issued Decision Document #14, which determined that the remedy(ies) implemented pursuant to the Consent Decree have provided and are providing achievement of the performance standard and that the seven-year period began on October 2, 2019⁴.

³ See *Consent Decree*, paragraph 12. ("The performance standard is a DDT level of 5 parts per million ("ppm") in the fillets of channel catfish, largemouth bass and smallmouth buffalo, in Reaches A, B, and C.")

⁴ *Review Panel Decision Document Number 14, Findings (2) of Continued Attainment (Past and Present) and Start of Seven Year Period for Remedy Operation or Maintenance*, final signature December 18, 2020.

The soil, groundwater, and sediment remediation as set up in the Consent Decree has been completed and the fish tissue sampling has indicated that the levels of DDT in the sampled species has attained and continued to attain the standards set in the Consent Decree.

Institutional Controls

There continues to be no institutional controls associated with the areas indicated in the Consent Decree. In addition, the DoA requires all proposed construction activities that occur on DoA property to undergo a review through RSA's Site Access Control program (SAC). The DoA is not responsible for the cleanup at the Consent Decree area; however, any further construction project within this area must be reviewed by the DoA's SAC program.

ADEM is working to draft an environmental covenant for the Site to comply with the requirements of the State of Alabama's Uniform Environmental Covenants Act. The restrictive covenant ensures the long-term enforcement of cleanup controls at the Site which will be binding on subsequent purchasers and tenants of the property and be listed in local land records. While the current process indicates that the restrictive covenant is not finalized until the Consent Decree terminates, these ICs should be in place before termination to prevent any disturbance to the remedy.

Reaches A and B lie within the Redstone Arsenal property and are not accessible to the public. Reach C is accessible to the public. In 2014, the Alabama Department of Public Health issued a "no restriction" advisory for all fish species in the HSB-IC system. The 2024 Alabama Fish Consumption Advisory booklet states that there are no restrictions on any fish species in the Indian Creek embayment, 1 mile upstream from its confluence with the lake in the HSB-IC system. However, the 2015 FYR determined that the FDA action level was not protective for recreational or subsistence fishers because it exceeded the EPA screening values based on a 10^{-4} risk. This determination indicates the need for institutional controls for all 3 reaches of the HSB-Indian Creek system until the concentrations in fish tissue fall within the 1×10^{-6} to 1×10^{-4} risk range.

Systems Operations/Operation & Maintenance (O & M)

The long-term monitoring program was documented in the Decision Document #6 in December 1987 and modified in 1989. Regular O & M at the Site include sampling of fish fillets and surface water for DDT concentrations. The long-term monitoring program required annual sampling of fish and biennial sampling of surface water at the Site until the performance standard is attained in all fish species for all three reaches. This was reached in 2015, and O & M costs are shown on the following table since the FYR. Since 2015, annual O&M has consisted mostly of landscaping and access maintenance to keep the Site accessible when necessary and for Site inspections. The monitoring wells, where noted seem in good condition. Annual O & M costs during the review period are summarized in the following table:

Table 2. Annual O&M Costs over the review period

Date	Annual O&M Cost (Rounded to the nearest \$1,000)
2020	\$25,000
2021	\$20,000
2022	\$40,000
2023	\$30,000
2024	\$10,000

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the last five-year review as well as the recommendations from the last five-year review and the status of those recommendations.

Table 3. Protectiveness Determinations/Statements from the 2020 FYR

OU #	Protectiveness Determination	Protectiveness Statement
Sitewide (OU1)	Short-term Protective	The Site's remedy remains protective of human health in the short-term since there is no completed exposure pathway in Reaches A and B, while for Reach C a yearly consumption of 20 meals/year is considered reasonable for the smallmouth buffalo which is not considered a game fish commonly pursued for consumption. Based upon the site visit and document review, the remedial action is functioning as intended by the Consent Decree. Pursuant to the Consent Decree, annual fish sampling through 2015 has shown continued attainment of the performance standard of 5 ppm DDT in fillets, for three fish species in Reaches A, B, and C of Hunter Spring Branch/Indian Creek system. In order for the remedy to be protective of human health and the environment in the long-term, institutional controls should be implemented, while the additional fish sampling data required by the Consent Decree should be evaluated when available.

Table 4. Status of Recommendations from the 2020 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
1	No ICs in place to	Implement institutional controls to prevent	Ongoing	ADEM is planning to draft an Environmental	Not Applicable

	prevent future disturbance of the remedy.	disturbance of the remedy prior to termination of the Consent Decree		Covenant for the Site, and a Notice of Environmental Use Restriction is being pursued for Redstone Arsenal property.	
1	The performance standard of 5 ppm DDT in fish is not protective of recreational and subsistence fishers.	Implement institutional controls to protect recreational and subsistence fishers obtaining fish from Reach A, B, and C until it can be demonstrated that current fish concentrations are within EPA's risk management range.	Ongoing	ADPH issued a "no restriction" advisory for all fish species in the HSB-Indian Creek system.	Not Applicable

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

The EPA issued a news release on October 29, 2024, listing the sites undergoing FYRs in Region 4 for the grant cycle. A copy of the news release can be found at Appendix E of this report.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The interview forms are provided in Appendix J, and the results of these interviews are summarized below.

Interviews were conducted with state government personnel, PRP and O&M personnel regarding their knowledge and/or concerns regarding Site activities. Most interviewees were familiar with the cleanup effort and had participated in prior discussions of remediation efforts. There were no outlier issues or problems raised by anyone concerning the Site.

Data Review

No soil, groundwater, or fish data was collected in this FYR period. All media will be sampled by Olin after the seven-year hiatus period, which began on October 2, 2019, per Review Panel Decision Document 14.

Site Inspection

The Site inspection took place on December 16, 2024. In attendance were Kenneth Prestridge and Mary Catherine Muscha, P.E. from the ADEM, Do Hyong Kim, Ph.D., P.E. (RPM) from the EPA, Drew Wirwa and Steve Alexander of the USFWS, Matthew Berry, Jason Braxton, Holly Gallier, and Clint Howard from RSA, Skip Markham from the TVA, and Julie Peoples from Olin. The Site Investigator met with the PRP personnel and RSA personnel and discussed the process of the FYR and answered any

questions that were brought up. The Site inspection's purpose was to assess the protectiveness of the remedy and Site conditions. For a full list of Site inspection activities, see the Site Inspection Checklist in Appendix H. Site photographs are available in Appendix I.

Participants accessed the Site through one of the firing ranges on RSA. There was a gate blocking access to the area. There are no buildings on the Site. Inspectors toured the upper reach A waterway by driving along its length, stopping to take photos to document Site conditions and any possible problems from erosion or flooding of the Site. None were noted during the inspection. There are no residences near the Site for interviews. Water levels on the Huntsville Spring Branch and diversion channels, etc. were several feet lower than observed in previous FYRs due to the winter low pool depth of the Tennessee River maintained by the TVA dams. No other changes or impacts were noted by inspectors at the time of the site inspection.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

Yes. The remedy continues to prevent re-suspension of DDT-contaminated sediments into the surface water column, which has historically been deemed the primary release source of the DDT contamination at the Site. Long-term monitoring and sampling of groundwater, surface water and sediments has demonstrated that the remedy is effective in preventing releases of DDT from contaminated sediments. Groundwater sampling was discontinued in 1997 because long-term monitoring indicated that DDT was below detection limits. Surface water concentrations have shown the remedy has significantly reduced DDT transport from sediment into the water column. Fish fillet sampling of channel catfish and largemouth bass achieved continued attainment of the performance standard set in the Consent Decree in all three reaches of the water system in 2003 and 1994, respectively. Smallmouth buffalo reached continued attainment in Reach B and Reach C in 2009 and 2006, respectively and in Reach A as of the 2015 fish tissue sampling event. All media will be sampled by Olin after the seven-year hiatus period, which began on October 2, 2019, per Review Panel Decision Document 14.

Implementation of Institutional Controls and Other Measures:

The Site is inspected on a regular basis at least yearly by Olin and RSA personnel. Minimum maintenance is required since no further sampling is being performed. The Site has barriers in place to restrict access to the Site. ADEM is drafting an Environmental Covenant for the site to comply with the requirements of the State of Alabama's Uniform Environmental Covenants Act and to ensure the long-term enforcement of cleanup controls at the Site, making them binding on subsequent purchasers and tenants of the property and listed in local land records, which will ultimately prevent disturbance and ensure the long-term effectiveness of the remedy. However, no ICs have been placed on the property yet. Additional ICs in the form of fish advisories may also be needed, as discussed in Question B.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and Remedial Action

Objectives (RAO) used at the time of the remedy selection still valid?

Question B Summary:

RAOs were not formally established in the Consent Decree. In addition, CERCLA human health and ecological risk assessment guidance had not been developed at the time the Consent Decree was issued. Thus, toxicity values and exposure factors were not used to establish a risk-based performance standard. Instead, a Consent Decree established the performance standard of 5 ppm of DDT in skinless fish fillets of channel catfish, largemouth bass, and smallmouth buffalo fish to monitor the effectiveness of the remedy. The performance standard was based on fish consumption guidance issued by the FDA to protect the national food supply as a whole. According to the EPA fish consumptions guidance, the EPA and the FDA have agreed that the use of FDA Action Levels for the purpose of making local fish advisory determinations is inappropriate.

The 2015 FYR determined that the FDA action level was not protective for recreational or subsistence fishers because it exceeded the EPA screening values based on a 10^{-4} risk. This shows need for institutional controls for all 3 reaches of the HSB-Indian Creek system until the fish concentrations fall within the 1×10^{-6} to 1×10^{-4} risk range.

The Question B Summary in the 2020 FYR evaluated calculated risks due to fish consumption, and it was determined that a concentration of DDT in fish filets to achieve CERCLA target risks for both cancer and non-cancer risks for DDT would be 2 ppm. In addition, as noted in the 2015 FYR, the USFWS "continued to express its concerns regarding ecological risks posed by the 5-ppm performance standard." Please consult each of those documents for information supporting these points.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy? No.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations				
Issues and Recommendations Identified in the Five-Year Review:				
OU(s): HSB-Indian Creek system	Issue Category: Institutional Controls			
	Issue: Institutional controls are not in place to prevent disturbance of the remedy.			
	Recommendation: Implement institutional controls to prevent remedy disturbance before the termination of the Consent Decree.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	ADEM	EPA	10/2/2026

OU(s): HSB-Indian Creek system	Issue Category: Institutional Controls			
	Issue: Performance standard of 5 ppm DDT in fish tissue is not protective of recreational and subsistence fishers.			
	Recommendation: Establish ICs for all reaches of the HSB-IC system to protect recreational and subsistence fishers from all reaches until concentrations fall within the risk range of 1×10^{-6} to 1×10^{-4} and conduct public outreach.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA	12/31/2027

OTHER FINDINGS

In addition, the following are recommendations that were identified during the FYR but do not affect current and/or future protectiveness:

- There is currently a planned project for U.S. Army Garrison-Redstone Arsenal (RSA) to install an ungraded water main through a portion of the site in Reach A. The planned project calls for coffer dams to be established to divert water, excavation of material from the bed of the creek, hauling away the excavated materials, installing the water main (approximately 6 feet under the creek bed), backfilling the excavation with clean materials, and removal of the coffer dams. The EPA will collaborate with RSA to monitor the project and address any concerns regarding the protectiveness of the remedy.

VII. PROTECTIVENESS STATEMENT

Sitewide Protectiveness Statement	
<i>Protectiveness Determination:</i> Short-term Protective	<i>Planned Addendum Completion Date:</i> NA
<i>Protectiveness Statement:</i> The Site's remedy currently protects human health and the environment because fish sampling performed through 2015 has shown attainment of the performance standard of 5 ppm DDT in fillets, for three fish species in Reaches A, B, and C of Hunter Spring Branch/Indian Creek system. There is no completed exposure pathway in Reaches A and B, while for Reach C a yearly consumption of 20 meals/year is considered reasonable for the smallmouth buffalo which is not considered a game fish commonly pursued for consumption. In order for the remedy to be protective of human health and the environment in the long-term, institutional controls to prevent remedy disturbance should be implemented before the termination of the Consent Decree, and ICs for all reaches of the	

HSB-IC system should be implemented to protect recreational and subsistence fishers while the additional fish sampling data required by the Consent Decree should be evaluated when available.

VIII. NEXT REVIEW

The next FYR for the Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

1. 19th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, June 15, 2007.
2. 20th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, June 3, 2008.
3. 21st Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, June 25, 2009.
4. 22nd Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, June 4, 2010.
5. 23rd Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, March 30, 2011.
6. 24th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, May 23, 2012.
7. 25th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, May 14, 2013.
8. 26th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, May 17, 2014.
9. 28th Annual Huntsville Spring Branch-Indian Creek Long Term Monitoring report for the Huntsville DDT Project, Olin Corporation, March 1, 2016.
10. Biological Assessment of Impacts Upon Endangered Species by Olin Chemical Corporation Remedial Action Plan to Isolate DDT from People and the Environment, Water, Air and Research, inc. for USACE, October 1985.
11. Consent Decree: United States of America, Plaintiff, v. Olin Corporation, A Virginia Corporation, Defendant, Town of Triana, Intervenor, State of Alabama ex rel Charles A. Graddick, Attorney General, et al, Plaintiffs, v. Olin Mathieson Chemical Corporation, a Virginia Corporation, Defendant, 1983
12. Decision Document # 1, Olin Corporation Remedial Plan to Isolate DDT from People and the Environment in Huntsville Spring Branch-Indian Creek System, August 31, 1984.
13. Decision Document # 2, Baseline Data, Substitute Species, and Interim Goals for Fish and Water, October 28, 1986.

14. Decision Document # 3, Remedial Action Plan to Isolate DDT in Lower Reach A of Huntsville Spring Branch, December 9, 1986.
15. Decision Document # 6, Long Term Monitoring Program for the Remedial Action in the Huntsville Spring Branch-Indian Creek System, December 3, 1987.
16. Decision Document # 6, Modification for Long Term Monitoring Program for the Remedial Action in the Huntsville Spring Branch-Indian Creek System, December 7, 1987.
17. Decision Document # 12, Monitoring Program, Interim Goals and Contingency Plan for Attaining the Performance Standard for Channel Catfish and Smallmouth Buffalo 1998 – 2007
18. Field and Laboratory Investigations of the Huntsville Spring Branch-Indian Creek System, Prepared by Olin Corporation, July 1, 1985.
19. Final Environmental Impact Statement for Regulatory Actions Associated with the Olin Corporation Remedial Action Plan to isolate DDT from the People and Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, February 1986.
20. Fourth Five-Year Review Report, Triana/Tennessee River Site, Triana, Madison County, Alabama, Prepared by E² Inc. for EPA Region 4, February 2010.
21. Fourth Report on the Remedial Action to isolate DDT from People and the Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, Review Panel Activities (United States v. Olin Corporation Consent Decree), April 23, 1999 – December 2008, Vols 1-2, 2000, Atlanta, US Environmental Protection Agency, Region IV.
22. Huntsville Spring Branch-Indian Creek Post Remedial Action Interim Goals, Prepared by Olin Corporation, August 1, 1985.
23. Permit Application for the Huntsville Remedial Action Plan at Huntsville, Alabama, Lower Reach A, 404/26A Prepared by Waldemar S. Nelson and Company Inc., for Olin Corporation, September 1986.
24. Report on DDT in HSBM 4.0 to 2.4 (Lower Reach A), Prepared by Olin Corporation's Environmental Affairs Department, Charleston, Tennessee, August 1, 1985.
25. Report on the Remedial Action to Isolate DDT from People and the Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, Review Panel Activities (United States v. Olin Corporation Consent Decree), May 31, 1985 – June 30, 1986, Atlanta, US Environmental Protection Agency, Region IV
26. Second Five-Year Review Report, Triana/Tennessee River Site, Triana, Madison County, Alabama, Prepared by Roy F. Weston, Inc. for EPA Region IV, June 18, 1999.

27. Second Report on the Remedial Action to Isolate DDT from People and the Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, Review Panel Activities (United States v. Olin Corporation Consent Decree), July 1, 1986-June 30, 1990, Atlanta, US Environmental Protection Agency, Region IV
28. Third Five-Year Review Report, Triana/Tennessee River Site, Triana, Madison County, Alabama, Prepared by the US Army Corps of Engineers, (Mobile District) for EPA Region IV, February 25, 2005.
29. Third Report on the Remedial Action to Isolate DDT from People and the Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, Review Panel Activities (United States v. Olin Corporation Consent Decree), July 1, 1986 – June 30, 1990, Vols. 1-2, 2000, Atlanta, US Environmental Protection Agency, Region IV.
30. Fourth Report on the Remedial Action to Isolate DDT from People and the Environment in the Huntsville Spring Branch-Indian Creek System, Wheeler Reservoir, Alabama, Review Panel Activities, April 23, 1995- December 2008.
31. Fifth Five-Year Review Report, Triana/Tennessee River Site, Triana, Madison County, Alabama, Prepared by the US Army Corps of Engineers, (Mobile District) for EPA Region IV, February 2015.
32. Sixth Five-Year Review Report, Triana/Tennessee River Site, Triana, Madison County, Alabama, Prepared by ADEM for EPA Region IV, February 2019.
33. Decision Document #14, Review Committee, December 2020.
34. Huntsville Spring Branch Limited Sample Event for Pesticide Screening, Terrell Technical Services, Inc, September 4, 2023.
35. Draft, Findings of No Significant Impact for the Industrial and Potable Water Main Improvements Project at Redstone Arsenal, Alabama, NEPA #EAXX-007-21-001-1738755705, March 2025.

APPENDIX B – CURRENT SITE STATUS

Environmental Indicators

- *Current human exposures at the Site are under control.*
- *Continued attainment of performance standard established in the Consent Decree has been reached for all fish species in all reaches.*

Are Necessary Institutional Controls in Place?

☐ All ☐ Some ☒ None

The Site has no environmental covenants put on the property and no groundwater usage apply.

Has EPA Designated the Site as Sitewide Ready for Anticipated Use?

☐ Yes ☒ No

Has the Site Been Put into Reuse?

☐ Yes ☒ No

APPENDIX C – SITE CHRONOLOGY

Table C-1: Chronology of Site Events

Event	Date
Olin Corporation production of DDT at Redstone Arsenal	1947 to 1970
Consent Decree between Olin, USEPA and State of Alabama for cleanup of DDT Site	May 1983
Site Finalized to the National Priorities List	September 8, 1983
Remedial Action Plan submitted to the Review Panel. Review Panel approves the Remedial Action Plan	August 1984
Establishment of Interim Cleanup Goals by Review Panel	October 1986
Remedial Actions begin and finish	April 1986 - 1987
Review Panel designated the remedy as construction complete	January 1, 1988
Groundwater monitoring ceased by decision of Review Panel. Determined no significant impact to groundwater following the remedial action.	1997
Review of Sediment sample study	2004
DDT sediment sampling	2005
Fish Tissue Sampling (yearly)	1988 - 2015
Largemouth Bass achieves performance standard of continued attainment in all reaches	1998
Channel Catfish achieves performance standard of continued attainment in all reaches of HSB-Indian Creek System	2003
Fifth Five Year Review	Feb 2015
Smallmouth Buffalo achieves performance standard of continued attainment in all reaches of HSB-Indian Creek system	2015
Review Panel accepts sampling data and generate Decision Document on fish sampling	2019
Sixth FYR	2019
Technical Review Committee recommend Review Committee Create Decision Document	2019
Review Committee Accept recommendation and establish 7-year hiatus start date	Dec 2020
Huntsville Spring Branch Recommended Scope of Work	Sept 2023
March 2025 USA drafts FONSI Environmental Assessment	March 2025

APPENDIX D – SI CHECKLIST

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST	
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I. SITE INFORMATION	
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Date of Inspection: 12/16/24

EPA ID: ALD983166299

Weather/Temperature: Clear/Partly Cloudy/showers /
70s

☐ Landfill cover/containment
☒ Access controls
☐ Institutional controls
☐ Ground water pump and treatment
☐ Surface water collection and treatment
☒ Other: Diversion of stream flow around contaminated parts of HSB-Indian Creek tributaries; excavation of new channel; excavation of contaminated portions of sediments; natural attenuation and continued sediment in-place; monitoring and proposed future ICs

☐ Monitored natural attenuation
☐ Ground water containment
☐ Vertical barrier walls

Attachments: ☒ Inspection team roster attached ☐ Site map attached

II. INTERVIEWS (check all that apply)

Name	Title	Date
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Problems, suggestions ☐ Report attached: yes

<u>Name</u>	<u>Title</u>	<u>Date</u>
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Problems/suggestions ☐ Report attached:

3. **Local Regulatory Authorities and Response Agencies** (i.e., state and tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices). Fill in all that apply.

Contact	<u>Clint Howard</u>	<u>RSA</u>	<u> </u>	<u> </u>
	Name	Title	Date	Phone No.

Agency

Problems/suggestions ☐ Report attached: Yes

Contact	<u>Kenneth Prestridge</u>	<u>Environmental</u>	<u>10/31/19</u>	<u>334-271-7818</u>
	Name	Scientist.	Date	Phone No.

Problems/suggestions ☐ Report attached: Yes

Agency <u>US EPA</u> Contact <u>Dr Do Hyong Kim</u> Name Title Date Phone No. Problems/suggestions ☐ Report attached: _____				
Agency _____ Contact _____ Name Title Date Phone No. Problems/suggestions ☐ Report attached: _____				
4. Other Interviews (optional) ☐ Report attached: <u>Yes</u> _____				
III. ON-SITE DOCUMENTS AND RECORDS VERIFIED (check all that apply)				
1. O&M Documents ☐ O&M manual ☐ Readily available ☐ Up to date ☐ N/A ☐ As-built drawings ☐ Readily available ☐ Up to date ☐ N/A ☐ Maintenance logs ☐ Readily available ☐ Up to date ☐ N/A Remarks: <u>EPA and PRPs retain O&M documents off site.</u>				
2. Site-Specific Health and Safety Plan ☒ Readily available ☒ Up to date ☐ N/A ☐ Contingency plan/emergency response plan ☒ Readily available ☒ Up to date ☐ N/A Remarks: <u>EPA and PRP retain safety documents off site.</u>				
3. O&M and OSHA Training Records ☒ Readily available ☒ Up to date ☐ N/A Remarks: <u>EPA and PRP retain training records off site.</u>				
4. Permits and Service Agreements ☐ Air discharge permit ☐ Readily available ☐ Up to date ☒ N/A ☐ Effluent discharge ☐ Readily available ☐ Up to date ☒ N/A ☐ Waste disposal, POTW ☐ Readily available ☐ Up to date ☒ N/A ☐ Other permits: _____ ☐ Readily available ☐ Up to date ☒ N/A Remarks: _____				
5. Gas Generation Records ☐ Readily available ☐ Up to date ☒ N/A Remarks: _____				
6. Settlement Monument Records ☐ Readily available ☐ Up to date ☒ N/A Remarks: _____				
7. Ground Water Monitoring Records ☒ Readily available ☒ Up to date ☐ N/A Remarks: <u>Groundwater monitoring reports forwarded to EPA and ADEM</u>				
8. Leachate Extraction Records ☐ Readily available ☐ Up to date ☒ N/A Remarks: _____				

9.	Discharge Compliance Records			
☐ Air		☐ Readily available	☐ Up to date	☐ N/A
☐ Water (effluent)		☐ Readily available	☐ Up to date	☐ N/A
Remarks: _____				
10.	Daily Access/Security Logs		☒ Readily available	☒ Up to date ☐ N/A
Remarks: _____				
IV. O&M COSTS				
1.	O&M Organization			
☒ State in-house		☐ Contractor for state		
☒ PRP in-house		☐ Contractor for PRP		
☒ Federal facility in-house		☐ Contractor for Federal facility		
☐ _____				
2.	O&M Cost Records			
☐ Readily available		☐ Up to date		
☒ Funding mechanism/agreement in place		☒ Unavailable		
Original O&M cost estimate: _____ ☐ Breakdown attached				
Total annual cost by year for review period if available				
From: _____		To: <u>2020</u>	<u>\$25,000</u>	☐ Breakdown attached
Date		Date	Total cost	
From: _____		To: <u>2021</u>	<u>\$20,000</u>	☐ Breakdown attached
Date		Date	Total cost	
From: _____		To: <u>2022</u>	<u>\$40,000</u>	☐ Breakdown attached
Date		Date	Total cost	
From: _____		To: <u>2023</u>	<u>\$30,000</u>	☐ Breakdown attached
Date		Date	Total cost	
From: _____		To: <u>2024</u>	<u>\$10,000</u>	☐ Breakdown attached
Date		Date	Total cost	
3.	Unanticipated or Unusually High O&M Costs during Review Period			
Describe costs and reasons: _____				
V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A				
A. Fencing				
1.	Fencing Damaged		☐ Location shown on site map	☐ Gates secured ☐ N/A
Remarks: <u>There is minimal fencing around the site. Access is through secure areas requiring access authority by the US Army and RSA. Site access is limited.</u>				
B. Other Access Restrictions				
1.	Signs and Other Security Measures		☐ Location shown on site map	☐ N/A
Remarks: _____				

C. Institutional Controls (Ics)			
E. Implementation and Enforcement*			
Site conditions imply Ics not properly implemented	☒ Yes	☐ No	☐ N/A
Site conditions imply Ics not being fully enforced	☒ Yes	☐ No	☐ N/A
Type of monitoring (e.g., self-reporting, drive by): _____			
Frequency: _____			
Responsible party/agency: _____			
Contact _____	_____	_____	_____
Name	Title	Date	Phone no.
Reporting is up to date	☒ Yes	☐ No	☐ N/A
Reports are verified by the lead agency	☒ Yes	☐ No	☐ N/A
Specific requirements in deed or decision documents have been met	☐ Yes	☒ No	☐ N/A
Violations have been reported	☐ Yes	☐ No	☒ N/A
Other problems or suggestions: ☐ Report attached			
<u>Ics have been not been implemented at the Site. The Site has no environmental covenant on the property.</u>			
2. Adequacy ☐ Ics are adequate ☒ Ics are inadequate ☐ N/A			
Remarks: <u>ICs have not been implemented at the Site.</u>			
D. General			
1. Vandalism/Trespassing ☐ Location shown on site map ☐ No vandalism evident			
Remarks: <u>There appears to be no sign of trespassing or vandalizing at the Site. The Site has limited access due to entry restrictions by the US Army and RSA.</u>			
2. Land Use Changes On Site ☐ N/A			
Remarks: <u>No land use changes.</u>			
3. Land Use Changes Off Site ☐ N/A			
Remarks: <u>There has been some development of properties near the Site, but nothing directly adjacent to the property.</u>			
VI. GENERAL SITE CONDITIONS			
A. Roads ☐ Applicable ☒ N/A			
1. Roads Damaged ☐ Location shown on site map ☒ Roads adequate ☐ N/A			
Remarks: [REDACTED]			
B. Other Site Conditions			
Remarks: _____			
VII. LANDFILL COVERS ☐ Applicable ☒ N/A			
A. Landfill Surface			
1. Settlement (low spots) ☐ Location shown on site map ☐ Settlement not evident			

	Arial extent: _____ Remarks: _____	Depth: _____
2.	Cracks Lengths: _____ Widths: _____ Remarks: _____	☐ Location shown on site map ☐ Cracking not evident Depths: _____
3.	Erosion Arial extent: _____ Remarks: _____	☐ Location shown on site map ☒ Erosion not evident Depth: _____
4.	Holes Arial extent: _____ Remarks: _____	☐ Location shown on site map ☒ Holes not evident Depth: _____
5.	Vegetative Cover ☒ No signs of stress Remarks: _____	☒ Grass ☒ Cover properly established ☐ Trees/shrubs (indicate size and locations on a diagram)
6.	Alternative Cover (e.g., armored rock, concrete) Remarks: _____	☒ N/A
7.	Bulges Arial extent: _____ Remarks: _____	☐ Location shown on site map ☒ Bulges not evident Height: _____
8.	Wet Areas/Water Damage ☐ Wet areas ☐ Ponding ☐ Seeps ☐ Soft subgrade Remarks: _____	☒ Wet areas/water damage not evident ☐ Location shown on site map Arial extent: _____ ☐ Location shown on site map Arial extent: _____ ☐ Location shown on site map Arial extent: _____ ☐ Location shown on site map Arial extent: _____
9.	Slope Instability ☒ No evidence of slope instability Arial extent: _____ Remarks: _____	☐ Slides ☐ Location shown on site map
B. Benches ☐ Applicable ☒ N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)		
1.	Flows Bypass Bench Remarks: _____	☐ Location shown on site map ☐ N/A or okay

2.	Bench Breached	☐ Location shown on site map	☐ N/A or okay
Remarks: _____			
3.	Bench Overtopped	☐ Location shown on site map	☐ N/A or okay
Remarks: _____			
C. Letdown Channels		☐ Applicable	☒ N/A
(Channel lined with erosion control mats, riprap, grout bags or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
1.	Settlement (Low spots)	☐ Location shown on site map	☐ No evidence of settlement
Aerial extent: _____		Depth: _____	
Remarks: _____			
2.	Material Degradation	☐ Location shown on site map	☐ No evidence of degradation
Material type: _____		Aerial extent: _____	
Remarks: _____			
3.	Erosion	☐ Location shown on site map	☐ No evidence of erosion
Aerial extent: _____		Depth: _____	
Remarks: _____			
4.	Undercutting	☐ Location shown on site map	☐ No evidence of undercutting
Aerial extent: _____		Depth: _____	
Remarks: _____			
5.	Obstructions	Type: _____	☐ No obstructions
☐ Location shown on site map		Aerial extent: _____	
Size: _____			
Remarks: _____			
6.	Excessive Vegetative Growth	Type: _____	
☐ No evidence of excessive growth			
☐ Vegetation in channels does not obstruct flow			
☐ Location shown on site map		Aerial extent: _____	
Remarks: _____			
D. Cover Penetrations		☐ Applicable	☒ N/A
1.	Gas Vents	☐ Active	☐ Passive
☐ Properly secured/locked		☐ Functioning	☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration		☐ Needs maintenance	☒ N/A
Remarks: _____			
2.	Gas Monitoring Probes	☐ Properly	☐ Functioning ☐ Routinely sampled ☐ Good condition

	secured/locked	☐ Evidence of leakage at penetration	☐ Needs maintenance	☒ N/A
	Remarks: _____			
3.	Monitoring Wells (within surface area of landfill)	☒ Properly secured/locked	☒ Functioning	☒ Routinely sampled ☒ Good condition
		☐ Evidence of leakage at penetration	☐ Needs maintenance	☐ N/A
	Remarks: _____			
4.	Extraction Wells Leachate	☐ Properly secured/locked	☐ Functioning	☐ Routinely sampled ☐ Good condition
		☐ Evidence of leakage at penetration	☐ Needs maintenance	☒ N/A
	Remarks: _____			
5.	Settlement Monuments	☐ Located	☐ Routinely surveyed	☒ N/A
	Remarks: _____			
E. Gas Collection and Treatment		☐ Applicable	☒ N/A	
1.	Gas Treatment Facilities	☐ Flaring	☐ Thermal destruction	☐ Collection for reuse
		☐ Good condition	☐ Needs maintenance	
	Remarks: _____			
2.	Gas Collection Wells, Manifolds and Piping	☐ Good condition	☐ Needs maintenance	
	Remarks: _____			
3.	Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)	☐ Good condition	☐ Needs maintenance	☐ N/A
	Remarks: _____			
F. Cover Drainage Layer		☐ Applicable	☒ N/A	
1.	Outlet Pipes Inspected	☐ Functioning	☐ N/A	
	Remarks: _____			
2.	Outlet Rock Inspected	☐ Functioning	☐ N/A	
	Remarks: _____			
G. Detention/Sedimentation Ponds		☐ Applicable	☒ N/A	
1.	Siltation	Area extent: _____	Depth: _____	☒ N/A
	☐ Siltation not evident			
	Remarks: _____			
2.	Erosion	Area extent: _____	Depth: _____	

☐ Erosion not evident Remarks: _____		
3.	Outlet Works ☐ Functioning	☒ N/A
Remarks: _____		
4.	Dam ☐ Functioning	☒ N/A
Remarks: _____		
H. Retaining Walls ☐ Applicable ☒ N/A		
1.	Deformations ☐ Location shown on site map ☐ Deformation not evident Horizontal displacement: _____ Vertical displacement: _____ Rotational displacement: _____ Remarks: _____	
2.	Degradation ☐ Location shown on site map ☐ Degradation not evident Remarks: _____	
I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☒ N/A		
1.	Siltation ☐ Location shown on site map ☒ Siltation not evident Area extent: _____ Depth: _____ Remarks: _____	
2.	Vegetative Growth ☐ Location shown on site map ☐ N/A ☐ Vegetation does not impede flow Area extent: _____ Type: _____ Remarks: _____	
3.	Erosion ☐ Location shown on site map ☒ Erosion not evident Area extent: _____ Depth: _____ Remarks: _____	
4.	Discharge Structure ☐ Functioning ☒ N/A Remarks: _____	
VIII. VERTICAL BARRIER WALLS ☐ Applicable ☒ N/A		
1.	Settlement ☐ Location shown on site map ☐ Settlement not evident Area extent: _____ Depth: _____ Remarks: _____	
2.	Performance Monitoring Type of monitoring: ☐ Performance not monitored Frequency: _____ ☐ Evidence of breaching Head differential: _____ Remarks: _____	

IX. GROUND WATER/SURFACE WATER REMEDIES ☒ Applicable ☐ N/A	
A. Ground Water Extraction Wells, Pumps and Pipelines ☐ Applicable ☒ N/A	
1. Pumps, Wellhead Plumbing and Electrical ☐ Good condition ☐ All required wells properly operating ☐ Needs maintenance ☐ N/A Remarks: _____	
2. Extraction System Pipelines, Valves, Valve Boxes and Other Appurtenances ☐ Good condition ☐ Needs maintenance Remarks: _____	
3. Spare Parts and Equipment ☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided Remarks: _____	
B. Surface Water Collection Structures, Pumps and Pipelines ☐ Applicable ☒ N/A	
1. Collection Structures, Pumps and Electrical ☐ Good condition ☐ Needs maintenance Remarks: _____	
2. Surface Water Collection System Pipelines, Valves, Valve Boxes and Other Appurtenances ☐ Good condition ☐ Needs maintenance Remarks: _____	
3. Spare Parts and Equipment ☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided Remarks: _____	
C. Treatment System ☐ Applicable ☒ N/A	
1. Treatment Train (check components that apply) ☐ Metals removal ☐ Oil/water separation ☐ Bioremediation* ☐ Air stripping ☐ Carbon adsorbers ☐ In-situ chemical oxidation* ☐ Filters: _____ attenuation* ☐ Monitored natural ☐ Additive (e.g., chelation agent, flocculent): _____ ☐ Others: _____ ☐ Good condition ☐ Needs maintenance ☐ Sampling ports properly marked and functional ☐ Sampling/maintenance log displayed and up to date ☐ Equipment properly identified ☐ Quantity of ground water treated annually: _____	

	☐	Quantity of surface water treated annually: _____
		Remarks: <u>*The groundwater remedy was declared successful since no impact was noted by contamination.</u>
2.	Electrical Enclosures and Panels (properly rated and functional)	
	☒ N/A	☐ Good condition ☐ Needs maintenance
	Remarks: _____	
3.	Tanks, Vaults, Storage Vessels	
	☒ N/A	☐ Good condition ☐ Proper secondary containment ☐ Needs maintenance
	Remarks: _____	
4.	Discharge Structure and Appurtenances	
	☒ N/A	☐ Good condition ☐ Needs maintenance
	Remarks: _____	
5.	Treatment Building(s)	
	☒ N/A	☐ Good condition (esp. roof and doorways) ☐ Needs repair
	☐ Chemicals and equipment properly stored	
	Remarks: _____	
6.	Monitoring Wells (pump and treatment remedy)	
	☐ Properly secured/locked	☐ Functioning ☐ Routinely sampled ☐ Good condition
	☐ All required wells located	☐ Needs maintenance ☐ N/A
	Remarks: <u>All monitoring wells properly secured and functional.</u>	
D. Monitoring Data.		
1.	Monitoring Data	
	☒ Is routinely submitted on time	☒ Is of acceptable quality
2.	Monitoring Data Suggests:	
	☐ Ground water plume is effectively contained	☐ Contaminant concentrations are declining
E. Monitored Natural Attenuation		
1.	Monitoring Wells (natural attenuation remedy)	
	☒ Properly secured/locked	☒ Functioning ☐ Routinely sampled ☐ Good condition
	☐ All required wells located	☐ Needs maintenance ☐ N/A
	Remarks: <u>groundwater will be sampled after the seven-year hiatus period along with all other media.</u>	
X. OTHER REMEDIES		
If there are remedies applied at the Site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor		

extraction.	
XI. OVERALL OBSERVATIONS	
A. Implementation of the Remedy	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is designed to accomplish (e.g., to contain contaminant plume, minimize infiltration and gas emissions). <u>Soil was removed from the former processing area and placed in landfills on RSA. Some sediment was excavated and the channel of HSB was rerouted to form backwater areas which were out of the main stream flow. Diversion barriers were placed to divert surface water. Continued silting to cover and bury DDT contaminated silts in place was chosen to remedy DDT in surface water column and sediments. Erosion controls/rip-rap helps prevent resuspension of sediment in the water column.</u>
B. Adequacy of O&M	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. O&M procedures for the Site seem to be adequate at this time.
C. Early Indicators of Potential Remedy Problems	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. <u>No ICs in place for the Site, and the performance standard chosen is not protective to subsistence fishing.</u> <u>There is a planned upgrade to the water main on RSA which has a pipeline being planned to go through part of the site. The plan is to install coffer dams and divert the water in the creek, excavate the water line ditch, haul off the excavated material and dispose in the proper manner, install the water main, install clean backfill to the excavation, remove the coffer dams and restore the flow of the creek. Potential to reintroduce DDT to the water column if insufficient cover material not deposited over disturbed areas along the excavation.</u>
D. Opportunities for Optimization	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. <u>None at this time</u>

Site Inspection Participants:

Do Hyong Kim, EPA RPM
Kenneth Prestridge, ADEM
Mary Catherine Muscha, ADEM
Mathew Perry, RSA
Matthew Berry, RSA
Jason Braxton, RSA
Holly Gallier, RSA
Clint Howard, RSA
Drew Wirwa, USFWS
Steve Alexander, USFWS
Skip Markham, TVA
Julie Peoples, Olin (PRP)

APPENDIX E – PRESS NOTICE



EPA to review cleanups at 47 Southeast Superfund Sites this year

Contact: EPA Region 4 Press Office - (404) 562-8400, region4press@epa.gov

ATLANTA (October 29, 2024) – Today, the U.S. Environmental Protection Agency (EPA) announced that comprehensive reviews will be conducted of completed cleanup work at 47 Superfund sites in the Southeast.

The sites, located in Alabama, Florida, Georgia, North Carolina, South Carolina, and Tennessee, will undergo a legally required Five-Year Review to ensure that previous remediation efforts at the sites continue to protect public health and the environment.

"Five-Year Reviews are an integral part of the site remediation process because they help make sure remedies are still protective," **said Acting Regional Administrator Jeaneanne Gettle**. "The Southeast Region will benefit tremendously from the full restoration of Superfund sites, which can become valuable parts of the community landscape."

The Superfund Sites where EPA will conduct Five-Year Reviews in 2025 are listed below. The web links provide detailed information on site status as well as past assessment and cleanup activity. Once the Five-Year Review is complete, its findings will be posted in a final report at <https://www.epa.gov/superfund/search-superfund-five-year-reviews>.

Alabama

[ANNISTON ARMY DEPOT \(SOUTHEAST INDUSTRIAL AREA\)](#)

[ANNISTON PCB SITE \(MONSANTO CO\)](#)

[TRIANA/TENNESSEE RIVER](#)

Florida

[AGRICO CHEMICAL CO.](#)

[ARKLA TERRA PROPERTY](#)

[BROWN'S DUMP](#)

[CHEMFORM, INC.](#)

[HIPPS ROAD LANDFILL](#)

[HOMESTEAD AIR FORCE BASE](#)

[JACKSONVILLE ASH SITE](#)

[JJ SEIFERT MACHINE](#)

[MADISON COUNTY SANITARY LANDFILL](#)

[NORTHWEST 58TH STREET LANDFILL](#)

[PEAK OIL CO./BAY DRUM CO.](#)

[PETROLEUM PRODUCTS CORP.](#)

[PIONEER SAND CO.](#)

[SANFORD DRY CLEANERS](#)
[SANFORD GASIFICATION PLANT](#)
[SHERWOOD MEDICAL INDUSTRIES](#)
[STANDARD AUTO BUMPER CORP.](#)
[STAUFFER CHEMICAL CO \(TAMPA\)](#)
[STAUFFER CHEMICAL CO. \(TARPON SPRINGS\)](#)
[YELLOW WATER ROAD](#)

Georgia

[MONSANTO CORP. \(AUGUSTA PLANT\)](#)

North Carolina

[CHARLES MACON LAGOON AND DRUM STORAGE](#)
[CAMP LEJEUNE MILITARY RES. \(USNAVY\)](#)
[CAROLINA TRANSFORMER CO.](#)
[DAVIS PARK ROAD TCE](#)
[FCX, INC. \(WASHINGTON PLANT\)](#)
[JFD ELECTRONICS/CHANNEL MASTER](#)
[SIGMON'S SEPTIC TANK SERVICE](#)
[WEYERHAEUSER CO PLYMOUTH WOOD TRTNG PT](#)

South Carolina

[AQUA-TECH ENVIRONMENTAL INC \(GROCE LABS\)](#)
[MACALLOY CORPORATION](#)
[PARA-CHEM SOUTHERN, INC.](#)
[PARRIS ISLAND MARINE CORPS RECRUIT DEPOT](#)
[SANGAMO WESTON, INC./TWELVE-MILE CREEK/LAKE HARTWELL PCB CONTAMINATION](#)
[SAVANNAH RIVER SITE \(USDOE\)](#)
[SCRDI DIXIANA](#)
[TOWNSEND SAW CHAIN CO.](#)

Tennessee

[CARRIER AIR CONDITIONING CO.](#)
[ICG ISELIN RAILROAD YARD](#)
[MALLORY CAPACITOR CO.](#)
[MILAN ARMY AMMUNITION PLANT](#)
[NORTH HOLLYWOOD DUMP](#)
[SIXTY-ONE INDUSTRIAL PARK](#)
[WRIGLEY CHARCOAL PLANT](#)

Background

Throughout the process of designing and constructing a cleanup at a hazardous waste site, EPA's primary goal is to make sure the remedy will be protective of public health and the environment. At many sites, where the remedy has been constructed, EPA continues to ensure it remains protective by requiring reviews of cleanups every five years. It is important for EPA to regularly check on these sites to ensure the remedy is working properly. These reviews identify issues (if any) that may affect the

protectiveness of the completed remedy and, if necessary, recommend action(s) necessary to address them.

There are many phases of the Superfund cleanup process including considering future use and redevelopment at sites and conducting post cleanup monitoring of sites. EPA must ensure the remedy is protective of public health and the environment and any redevelopment will uphold the protectiveness of the remedy into the future.

The Superfund program, a federal program established by Congress in 1980, investigates and cleans up the most complex, uncontrolled, or abandoned hazardous waste sites in the country and endeavors to facilitate activities to return them to productive use. In total, there are more than 280 Superfund sites across the Southeast.

More information:

EPA's Superfund program: <https://www.epa.gov/superfund>

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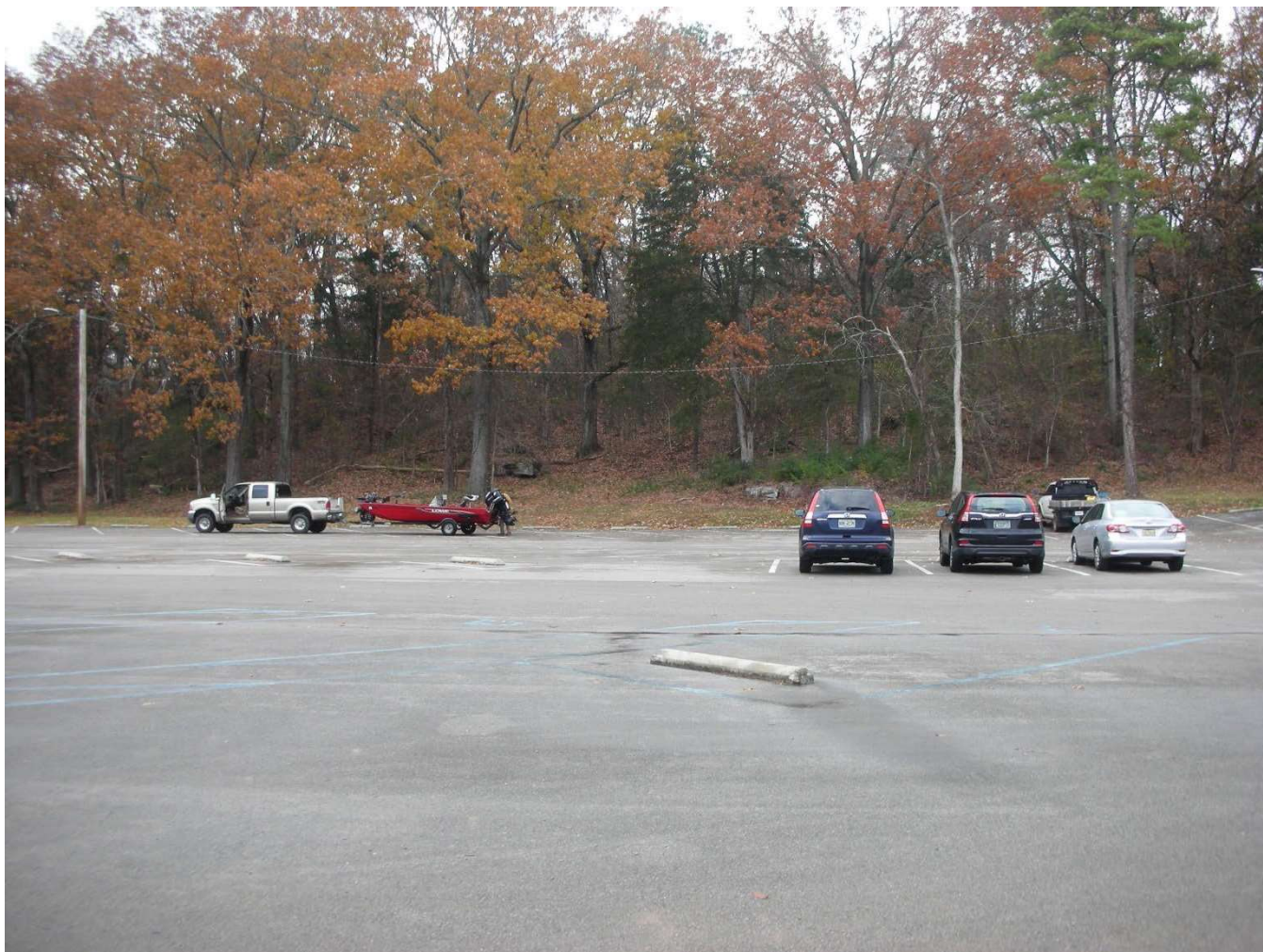


EPA.GOV

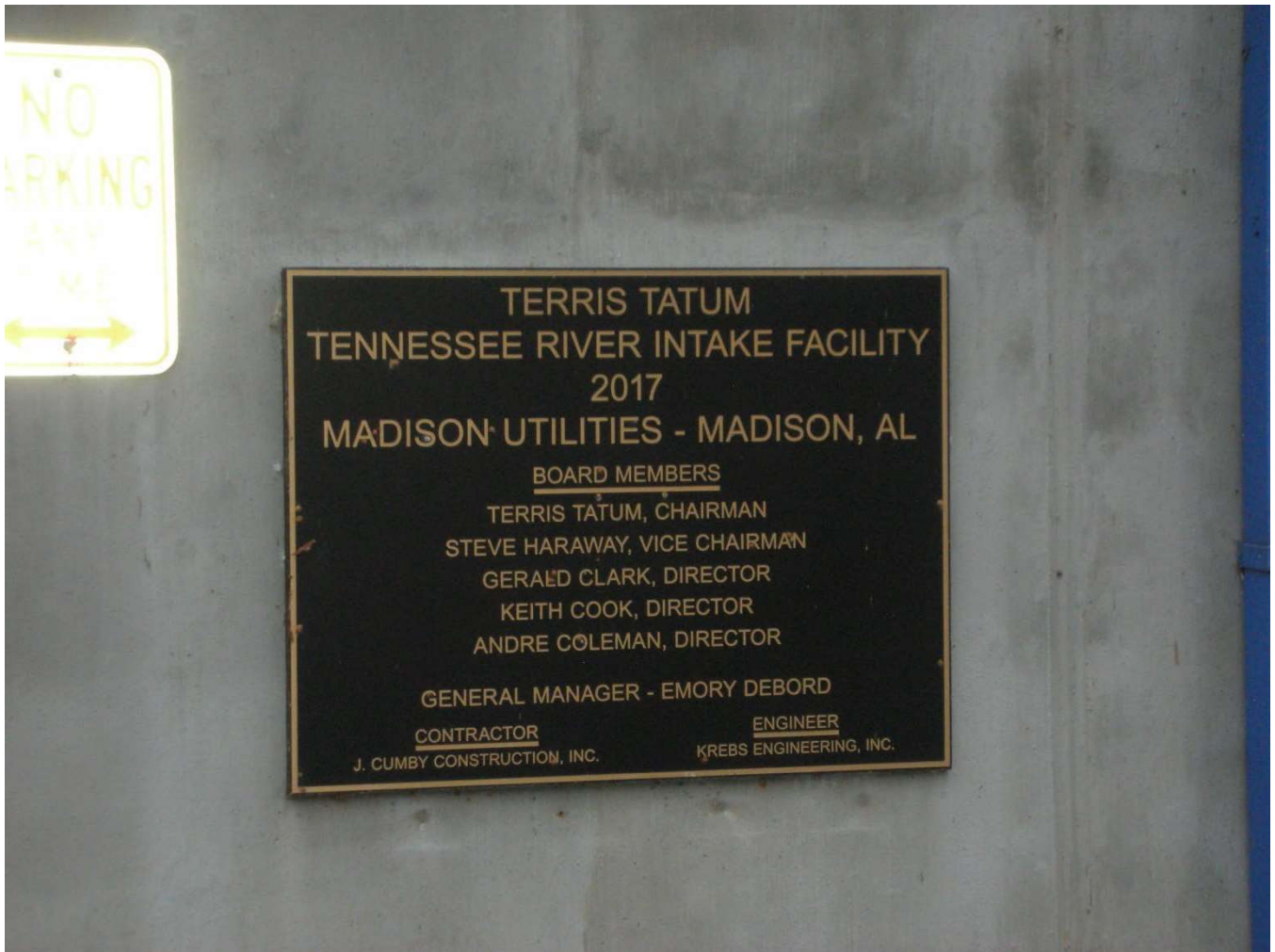
APPENDIX F – SITE INSPECTION PHOTOS



Photograph F-1: Triana Water Intake facility and public boat launch



Photograph F-2: Parking Lot of Public Boat Launch, Triana, AL



Photograph F-3: Public Water Intake Facility at bottom end of Reach C at Confluence of Tennessee River



Photograph F-4: Lower End or Reach A of the Triana Site



Photograph F-5: Low Pool Water Levels along Huntsville Spring Branch, Reach A



Photograph F-6: Stream levels and riprap stabilization along Reach A



Photograph F-7: Public Boat Launch at end of Reach C in use



Photograph F-8: Confluence of Reach C and the Tennessee River (Public Water Intake located out in the Tennessee River)



Photograph F-9: Signage at Public Boat Launch, Triana, AL

APPENDIX G – DETAILED ARARs REVIEW

CERCLA Section 121(d)(1) requires that Superfund remedial actions attain “a degree of cleanup of hazardous substance, pollutants, and contaminants released into the environment and of control of further release at a minimum which assures protection of human health and the environment.” The remedial action must achieve a level of cleanup that at least attains those requirements that are legally applicable or relevant and appropriate. Applicable requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, remedial action, location, or other circumstance found at a CERCLA site. Relevant and appropriate requirements are those standards that, while not “applicable,” address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are more stringent than federal requirements may be applicable or relevant and appropriate. To-Be-Considered (TBC) criteria are non-promulgated advisories and guidance that are not legally binding but should be considered in determining the necessary remedial action. For example, TBC criteria may be particularly useful in determining health-based levels where no ARARs exist or in developing the appropriate method for conducting a remedial action. Neither the Consent Decree nor the series of decision documents under the Consent Decree identified ARARs.

APPENDIX H – DATA REVIEW SUPPORTING DOCUMENTATION

Figure H-1: Decision Document Review Committee DD #14

REVIEW PANEL DECISION DOCUMENT NUMBER 14
FINDINGS (2) OF CONTINUED ATTAINMENT (PAST AND PRESENT) AND START OF SEVEN
YEAR PERIOD FOR REMEDY OPERATION OR MAINTENANCE
(1/2)

I. INTRODUCTION

Pursuant to Paragraphs 28 and 54 of the Consent Decree, U.S. vs. Olin Corp., entered May 31, 1983, No. CV80-PT-5300-NE, (N.D. Ala.), as modified by Court Order entered April 23, 1999, (collectively, the "Consent Decree") the Review Panel is authorized to review the remedial action implemented by Olin and determine whether "... the remedy(ies) implemented pursuant to this Consent Decree has provided, is providing and will continue to provide achievement of the performance standard once this Consent Decree terminates, *after which* Olin shall operate or maintain such remedy(ies)... for a period of seven additional years." This Decision Document Number 14 documents the Decisions (2) of the Review Panel that 1) the remedy(ies) implemented pursuant to this Consent Decree has provided and is providing achievement of the performance standard; and, 2) beginning October 2, 2019, Olin shall operate or maintain such remedy(ies) for a period of seven additional years.

II. FINDINGS OF THE REVIEW PANEL

A. Notification: The Review Panel has determined in its Decision Document 10, Appendices A-I, that continued attainment of the performance standard has been achieved.

B. Data: The Technical Committee has reviewed the data and concluded that the remedy(ies) implemented pursuant to this Consent Decree has provided and is providing achievement of the performance standard.

C. Recommendations for Further Consideration: The Technical Committee recommends that the Review Panel determine that the remedy(ies) implemented pursuant to the Consent Decree has provided and is providing achievement of the performance standard. The Technical Committee also recommends that the Review Panel determine that the start of the seven-year period shall be October 2, 2019.

III. DECISIONS

Having evaluated the conclusion and recommendation of the Technical Committee, it is the determination of the Review Panel that the remedy(ies) implemented pursuant to the Consent Decree has provided and is providing achievement of the performance standard. It is the further determination of the Review Panel that the seven-year period shall begin October 2, 2019.

REVIEW PANEL DECISION DOCUMENT NUMBER 14
FINDINGS (2) OF CONTINUED ATTAINMENT (PAST AND PRESENT) AND START OF SEVEN
YEAR PERIOD FOR REMEDY OPERATION OR MAINTENANCE
2/2

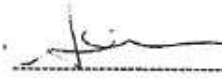
IV. CONCURRENCE

This Decision Document hereby confirms two Review Panel decisions. The document is two (2) pages in length and consists of four sections of text (I-IV, including this Concurrence section). The document comprises two decisions of the Review Panel and is accepted and adopted by the representatives of the Review Panel member agencies, in addition to one non-voting Review Panel member.

REVIEW PANEL MEMBERS

 12/14/2020

Peter Tuttle
U.S. Fish and Wildlife Service

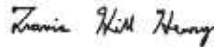


12/09/2020

Glenn O. Mellor
Colonel, U.S. Army
Garrison Commander

 11/11/20

Brian G. Farrier
U. S. Environmental Protection Agency

 12/15/2020

Travis Hill Henry
Tennessee Valley Authority



12/3/2020

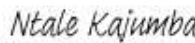
Stephen A. Cobb, P.E.
Chief, Land Division
Alabama Department of Environmental
Management

REVIEW PANEL NON-VOTING MEMBERS

Town of Triana
Alabama



David M. Share
V.P., Environmental Remediation
Olin Corporation

 12/18/2020

Ntale Kajumba, Review Panel Chair
U.S. Environmental Protection Agency

APPENDIX I – QUESTION B SUPPORT INFORMATION

APPENDIX J – SITE INTERVIEWS

Site Name: Triana/Tennessee River

EPA ID No.: ALD983166299

Interviewer Name: Kenneth Prestridge

Affiliation: ADEM Olin

Subject Name: PRP/Owner/Operator

Affiliation: Subject Contact Information: 423.336.4084

Julie Peoples

Corporation Operator/O&M

Time:

Date: 04/25/2025

Interview Location:

Interview Format

In Person

Phone

Mail

Other: Email

(circle one):

Interview Category: PRP/Owner/Operator

1. What is your overall impression of the remedial activities at the Site?

The remedial activities have successfully met the requirements of the Consent Decree to isolate DDT from people and the environment in the area of the Huntsville Spring Branch-Indian Creek tributary system of the Tennessee River.

2. What have been effects of this Site on the surrounding community, if any?

Remedial efforts have eliminated a concern to the nearby communities.

3. What is your assessment of the current performance of the remedy in place at the Site?

The Remedial Action remains in excellent condition and functioning as designed. No deficiencies or items of concern have been observed. Sediment has continued to deposit in the HSBM 4.0 Embayment and the low flow areas of the HSB channel. No impediments to water flow have been noted. The remedy is currently performing as designed.

4. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?

No.

5. Do you feel well-informed regarding the Site's activities and remedial progress? If not, how might EPA convey site-related information in the future?

Yes.

6. Do you have any comments, suggestions, or recommendations regarding the management or operation of the Site's remedy?

The final sampling event will be conducted in April 2026 to demonstrate that the Remedial Action continues to provide achievement of the performance standard.

7. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Yes.

Site Name:	<u>Triana/Tennessee River Site.</u>			EPA ID No.:	ALD983166299
Interviewer Name:	Kenneth Prestridge			Affiliation:	ADEM
Subject Name:	Kenneth Prestridge			Affiliation:	ADEM
Subject Contact Information:	334 271 78189				
Time:				Date:	02/03/2025
Interview Location:	ADEM				
Interview Format (circle one):	In Person	Phone	Mail	Other: Email	
Interview Category:	State Agency				

- What is your overall impression of the remedial activities at the Site?
The remedial goals/objectives seem to be adequately met as set forth in the Consent Decree
- What is your assessment of the current performance of the remedy in place at the Site?
Appears to be performing as formulated by the Consent Decree.
- Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?
No.
- Has your office conducted any site-related activities or communications in the past five years? If so, please describe the purpose and results of these activities?
Site Inspection with members of ADEM, Olin, US Army personnel and participation in Review Panel and Technical Committee meeting in May 2019.
- Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's remedy?
No.
- Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?
There are currently no institutional controls in place that I am aware of; however, institutional controls are needed to protect human health and the environment.
- Are you aware of any changes in projected land use(s) at the Site?
No.
- Do you have any comments, suggestions, or recommendations regarding the management or operation of the Site's remedy?
Work on completion of Environmental Covenant to include institutional and engineering controls so that the long term effectiveness of the remedy can be ensured.

9. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Site Name: <u>Triana/Tennessee River Site.</u>		EPA ID No.: ALD983166299	
Interviewer Name: Kenneth Prestridge		Affiliation: ADEM	
Subject Name:		Affiliation: Local Govt.	
Subject Contact Information:			
Time:		Date:	
Interview Location:			
Interview Format	(circle one):	In Person	Phone
		Mail	Other: Email
Interview Category: Local Govt.			

1. What is your overall impression of the remedial activities at the Site?
2. What have been effects of this Site on the surrounding community, if any
3. What is your assessment of the current performance of the remedy in place at the Site?
4. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?
5. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's remedy?
6. Do you feel well-informed regarding the Site's activities and remedial progress? If not, how might EPA convey site-related information in the future?
7. Do you have any comments, suggestions, or recommendations regarding the management or operation of the Site's remedy?
8. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Site Name: <u>Triana/Tennessee River Site.</u>		EPA ID No.: ALD983166299	
Interviewer Name: Kenneth Prestridge		Affiliation: ADEM	
Subject Name: Clint Howard		Affiliation: US Army	
Subject Contact Information: 256-842-3702		joseph.c.howard1.civ@mail.mil	
Time:		Date: 04/15/2025	
Interview Location: REDSTONE			
Interview Format (circle one):	In Person	Phone	Mail
			Other: Email

Interview Category: Federal Agency

- What is your overall impression of the project?
ANSWER: FOR THE ERA AND TIME THAT THESE REMEDIES WERE INSTALLED, I THINK OLIN DID A GOOD JOB OF STABILIZING AND REDUCING THE POTENTIAL FOR FURTHER HUMAN EXPOSURE
- How well do you believe the remedy currently in place is performing?
ANSWER: THE CURRENT REMEDY APPEARS TO PERFORMING VERY WELL.
- Are you aware of any complaints or inquiries regarding environmental issues or remedial action from residents in the last five years?
ANSWER: NO
- Has your office conducted any site-related activities or communications in the last five years? If so, please describe the purpose and results of these activities.
ANSWER: NO
- Are you aware of any changes to federal or state laws that might affect the protectiveness of the Site's remedy?
ANSWER: NO
Are you aware of any changes in projected land use at the Site? ANSWER: NO
- Please describe the level of cooperation between agencies (USEP A, ADEM, TV A, USFWS, and the DoA).
ANSWER: THE ENTIRE TEAM SEEM TO WORK WELL TOGETHER ALTHOUGH MUCH OF THE ORIGINAL TEAM MEMBERS ARE LEAVING AND/OR HAVE LEFT THEREFORE TAKING A LOT OF HISTORY WITH THEM.

7. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site remedy?

ANSWER: NO

APPENDIX K – INSTITUTIONAL CONTROLS

No Institutional Controls have been implemented on this Site yet.

APPENDIX L – SITE MAPS

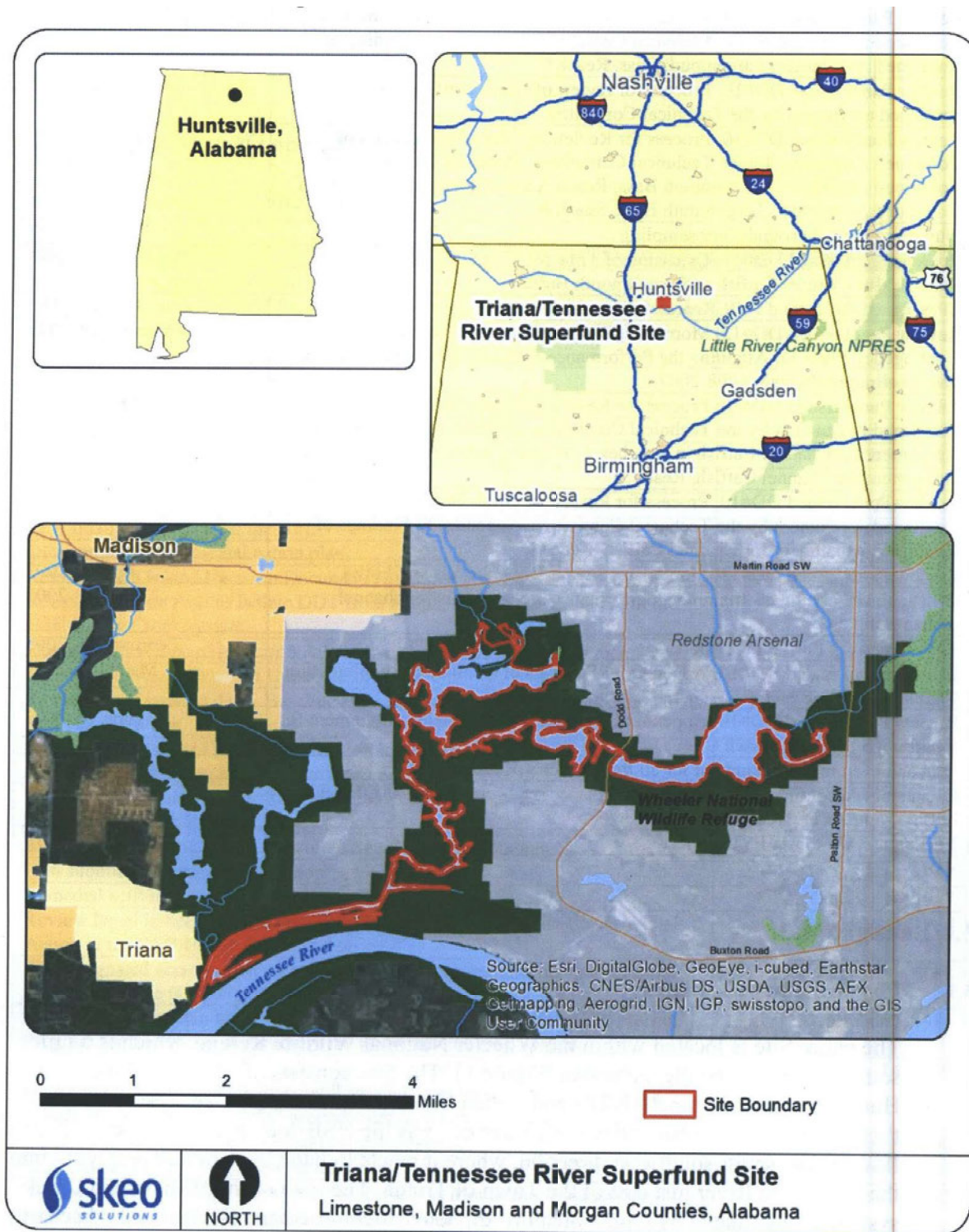
Figure L-1: Site Vicinity Map

Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only.



General location of Triana/Tennessee River Site (State)

Figure L-2: Site Map – General location of Triana/Tennessee River Site Headland, Madison County, Alabama (City)



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

Figure L-3: Site Map – General location of Triana/Tennessee River Site Photographs (Google Earth ®)

