

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name	<u>TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)</u>	ProjectID: 04-06
Last Updated:	07/18/01	
City:	Chattanooga	
County:	Hamilton	
State:	TN	
Country:	USA	
Bodies of Water:	Chattanooga Creek	
US EPA Region:	IV	
Status (Active, Complete, or Monitoring Only):	Complete	
Date On NPL:	1995	
ROD/ESD Date:	None	
Operable Unit:	NA	
Areas of Concern (length or acres):	2.5-mile sector of the Chattanooga Creek.	
Other Characteristics of Water Body:	2.5 miles of Chattanooga Creek, a 50 - 75 foot wide shallow creek, which runs through an urban area.	
Contaminants of Concern:	PAHs	
Source of Contamination:	The site originally consisted of three source areas of contamination: (a) the former coke production plant property; (b) the plant's uncontrolled coal-tar disposal areas in the floodplain of Chattanooga Creek; and (c) sediments along approximately 2.5 miles of the Creek. The former plant property was removed from the site's Superfund listing in 1996. The coal tar contamination reportedly originated at the Tennessee Products Coke Plant, located about one mile west of the creek. A discharge pipe and trench ran into the creek from the property and sludge was dumped along the creek.	
Contaminated Area Physical Characteristics:	Hot spot areas; river sediments. The heaviest concentrations of coal-tar deposits have been found in the creek bed and banks in a one-mile segment between Hamill Road and 38th Street.	
Type of Regulatory Action:	Superfund. Non-time critical removal action.	
Overall Status Summary:	<p>A FFS was completed by the USACOE in 1994 to address short-term cleanup activities associated with the hot spot area. Draft RI/RA reports addressing the remainder of the site, including additional creek sediments, are complete and PRP comments submitted for each. A final RI/FS is to be issued by late summer or early fall 2001. A ROD is expected in fall 2001.</p> <p>An EE/CA for interim hot spot removals was prepared; interim removal action started in June 1997; 10,000-15,000 cy of coal tar deposits were estimated across the full width of the creek; in-the-dry removal was planned using Port-A-Dams and flume tubes and bypassing creek flow; Port-A-Dams and flume tubes were discontinued in favor of rock dams; removal was with a long-stick excavator located on the bank; private property access and haul road construction involved, but were not limiting.</p> <p>From June to December 1997: 9,938 cy of coal tar contaminated material was removed from approximately 1,400 linear feet of creek and the North Coal Tar Pit; 748 truckloads shipped; about \$5.3 million spent. Cleanup of coal tar material began north of the 38th Street Bridge. Soon after starting the cleanup, it became clear that there was much more coal tar than originally estimated. More than two times the original estimate of coal tar for the entire creek was removed from this section alone. Work was suspended in November 1997 due to rainy weather.</p>	

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Work resumed in May 1998 and continued to completion in November 1998 resulting in the removal of 13,248 cy of coal tar material from the Creek. Air samples were collected on a 24-hour basis from stationary units surrounding excavations in the creek; concentrations were found to be well below established action levels.

At completion of the two-year project, 23,186 cy of coal tar and sediments had been removed from 4,236 linear feet of Chattanooga Creek. Additionally, 2,200 cy of coal tar waste was removed from adjacent land locations. Approximately 33,200 tons of coal tar wastes (project total) were recycled (used for fuel) at the Illinois power plant in Baldwin, IL and cement manufacturing plants in South Carolina and Tennessee. Thousands of tires were also removed from the creek and sent to a Chattanooga facility, which burns tires for fuel. Total project cost, about \$11.5 million.

Remedial Action Planned: ☒

Risk Assessment: ☐

Remedial Action Implemented: ☒

Status of Dredging ☐

PRPs: ☒

Contacts: ☒

References: ☒

Modeling: ☐

Fishing Advisory: ☐

Key Conditions: extended (> 1 mile) river, incineration, property access issues

REMEDIAL ACTION PLANNED

Project Name	<u>TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)</u>	ProjectID: 04-06
Last Updated:	08/11/98	
Target Sediment Cleanup Standards (TSCS):	None. Visually-identified coal tar material is the target.	
How TSCS Established:		
Target Bank and Floodplain Cleanup Levels (if applicable):	A disposal pit in the creek's floodplain is also targeted.	
Other Target:		
Environmental Sample Data References:	<ul style="list-style-type: none">• Sediment:• Water:• Fish:	
Estimated Target Volume:	3,000 - 5,000 cy	
Planned Disposal Method:		
Estimated Calendar Time to Implement Remedy:	June through November 1997.	
Estimated Time to Implement Remedy:	Six months.	
Estimated Cost to Implement Remedy:	\$5 million	
Stated Remedial Action Objectives (and Source):	Remove as much coal tar-contaminated sediment as practicable within hot spot areas.	
Measures of Success to be Used:		
Planned Monitoring and Restoration:		
Agency Position on Sediment Removal (and Source):	After installing fences to restrict access to sections of the Chattanooga Creek, the EPA has determined that the site does not pose an immediate risk to public health or the environment while investigations are underway. A non-time critical removal will begin in the summer of 1997 to remove the bulk coal-tar deposits in the creek and its floodplain.	

REMEDIAL ACTION IMPLEMENTED

Project Name:	<u>TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)</u>	ProjectID: 04-06
Last Updated:	07/18/01	
Physical Target:	Coal-tar deposits, in the creek.	
Goals:	Remove coal-tar from Chattanooga Creek; target areas based on visual identification.	
Primary Contractor:	IT Corporation	
Other Contractors:	Kipin Industries (transport and disposal); CDM Federal Programs (EE/CA)	
Generic Remediation Method:	Dry excavation	
Equipment:	Earthen dams, with water pumped around by three 12-inch pumps. Long-stick excavator with 60-foot reach used, from one side only.	
Material Handling:	First used flume tubes (like a flexible pipe) to bypass creek flow. These proved not practical and "got in the way" when coal tar was unexpectedly found to extend from bank to bank. Also, they tended to float and get wrapped up "like sausages." Then used Port-A-Dams and pumped creek water around. Subsequently discontinued in favor of earthen dams. Used long-stick excavators with 60 foot reach, from one side only. Excavated material was loaded into continuous weld sludge boxes, then trucked to plant site. Drying agent mixed-in, then material was loaded onto trucks for shipment to one of three beneficial use facilities. A total of 1,328 truckloads. Excavated typically 3-6 feet deep; one-hole was to 15 feet deep. No backfilling.	
Volume Removed:	23,200 cy of coal tar and sediments, from 4,236 linear feet of creek.	
Calendar Time:	June - November 1997 and May - November 1998	
Time To Implement:	13 months; generally, 9-10 hours per day, five days per week; occasionally, six and seven day work weeks.	
Total Cost:	\$11.5 million (about \$450 per cy).	
Dredging Cost:	N/A	
Disposal of Sediment:	Drying agent added, then material was trucked to one of several beneficial reuse facilities, including the cement kiln at the Giant Resource Recovery facility in South Carolina, the boiler at the Illinois Power facility in Baldwin, Illinois, and the cement kiln at the Global Stone facility in Tennessee. Cost \$140-150 per ton for transport and disposal. Additionally, 1,150 cy of pesticide/herbicide-contaminated sediment were disposed at a local municipal landfill.	
Volume of Water:	Not identified	
Method of Water Treatment:	Water seepage into the dry excavation areas was pumped to an oil/water separator, then discharged back to the creek. No discharge permit was required.	
Water Discharge Limit:		
Air Monitoring During Remediation:	Air samples were collected on a 24-hour basis from stationary units surrounding the excavations in the creek and the waste staging area at the former plant site. Additionally, air samples were collected from a mobile unit taking air samples from the Alton Park Middle School parking lot and from the surrounding community. Analyses from all of the air samples showed that the concentrations found were well below all of the established action levels.	
Water Monitoring During Remediation:	None identified	

REMEDIAL ACTION IMPLEMENTED

Project Name:	<u>TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)</u>	ProjectID: 04-06
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Outcome:	Final removal volumes included: (1) 165 cy removed from a coal-tar pit in a low-lying area ; (2) 2,000 cy of coal tar waste mounds removed from on land; (3) 23,186 cy of coal tar material removed from the creek; (4) 1,150 cy of pesticide/herbicide-contaminated sediment removed from the creek; and (5) thousands of tires (and other debris) removed from the creek. A total of 33,200 tons of processed coal tar material (excluding tires) was shipped off site for beneficial reuse.	
Restoration and Post-Monitoring:	None. Ongoing Superfund investigation will result in a ROD and a final remedy for other sections of the creek.	
Site-Specific Difficulties:	First used flume tubes (like a flexible pipe) to bypass creek flow. These proved not practical and "got in the way" when coal tar was unexpectedly found to extend from bank to bank. Also, they tended to float and get wrapped up "like sausages." Then used Port-A-Dams and pumped creek water around. Subsequently discontinued the Port-A-Dams in favor of earthen dams.	
Monitoring Data		
References:	<ul style="list-style-type: none">• <i>Sediment</i>• <i>Water:</i>• <i>Fish:</i>	

POTENTIALLY RESPONSIBLE PARTIES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

PRP Name: PRP INFORMATION NOT RELEASED

PRPID:

Street Address:

City:

State:

KEY CONTACTS

Project Name **TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)**

ProjectID: 04-06

Last Name: KEY CONTACT INFORMATION NOT RELEASED

Contact ID:

First Name:

Title:

Company:

Address:

City:

State:

Postal Code:

Work Phone # :

Other Phone #:

Fax # :

Email Address:

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: A

ReferenceID: 103

Title: *EPA Cleanup of Coal Tar in Chattanooga Creek is Halfway Done*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region IV

Preparer/Author Address: Atlanta Federal Center
Atlanta, GA 30303

Prepared For: General Public

Date Published: December 1997

Key Words and Phrases:

Reference Type: A

ReferenceID: 158

Title: *Removal Status Fact Sheet: Chattanooga Creek Coal Tar Removal Project is Complete*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region IV

Preparer/Author Address: Atlanta, GA

Prepared For: General Public

Date Published: December 1998

Key Words and Phrases:

Reference Type: A

ReferenceID: 671

Title: *Final Report: Removal Action for the Tennessee Products Superfund Site, Chattanooga, Tennessee (CD-ROM)*

Location: AEM

Category: Close-Out Report

Prepared by/Author: IT Corporation

Preparer/Author Address: 312 Directors Drive
Knoxville, TN 37923

Prepared For: U.S. Army Corps of Engineers - Omaha District and
U.S. Army Corps of Engineers - Nashville District

Date Published: May 1999

Key Words and Phrases:

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: A

ReferenceID: 1141

Title: *EPA Superfund Update: Proposed Plan Fact Sheet - Cleanup of Chattanooga Creek*

Location: AEM

Category: ROD/Proposed Plan/Action Memo/Decision Document

Prepared by/Author: US EPA Region IV

**Preparer/Author
Address:**

Prepared For:

Date Published: August 2002

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 1142

Title: *Chattanooga Creek Area Cross-Sectional Health Study, Chattanooga, Hamilton County, Tennessee*

Location: AEM

Category: Risk Assessment

Prepared by/Author: Tennessee Dept. of Health, Nashville
Environmental Health Studies and Services

**Preparer/Author
Address:**

Prepared For:

Date Published: July 1999

**Key Words and
Phrases:**

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: B

ReferenceID: 95

Title: *EPA Region 4 Press Release- EPA to Meet With Community Advisory Group Regarding the Tennessee Products Superfund Site in Chattanooga, Tennessee*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region IV

Preparer/Author Address: Atlanta Federal Center
Atlanta, GA 30303

Prepared For: General Public

Date Published: November 24, 1997

Key Words and Phrases:

Reference Type: B

ReferenceID: 96

Title: *Site Information Sheet - Tennessee Products EPA ID# TND071516959*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region IV

Preparer/Author Address: Atlanta Federal Center
Atlanta, GA 30303

Prepared For: General Public

Date Published: June 1997 (updated September 15, 2000)

Key Words and Phrases:

Reference Type: B

ReferenceID: 121

Title: *EPA National Priorities List: Tennessee Products*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA HQ

Preparer/Author Address: Internet Website

Prepared For: General Public

Date Published: June 1996

Key Words and Phrases:

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: B

ReferenceID: 391

Title: *Tennessee Products NPL Site Fact Sheet*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region IV

Preparer/Author Waste Management Division

Address: Atlanta, GA

<http://www.epa.gov/region4/wasteepgs/npl/npltn/tennprtn.htm>

Prepared For: General Public

Date Published: June 1, 1999

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 172

Title: *Chattanooga Creek site headed for NPL*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Superfund Week

Date Published: September 3, 1993

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 235

Title: *Tenn. Products removals to be bid*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Superfund Week

Date Published: November 3, 1995

**Key Words and
Phrases:**

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: C

ReferenceID: 263

Title: *Corps studies Tennessee Products pollution*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Superfund Week

Date Published: January 13, 1995

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 342

Title: *RI/FS Complete at Tennessee Products; Proposed Plan, ROD
Coming Next Year*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Superfund Week

Date Published: November 13, 1998

**Key Words and
Phrases:**

Reference Type: C

ReferenceID: 1147

Title: *Tenn,: Recycling Part of Remedy*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: September 2, 2002

**Key Words and
Phrases:**

REFERENCES

Project Name TENNESSEE PRODUCTS - PROJECT 1 (Hot Spot)

ProjectID: 04-06

Reference Type: L

ReferenceID: 84

Title: *Memo re: Precedent for Extended Sediment Remediation in Rivers and Streams*

Location: AEM

Category: Contaminated Sediments: Overview of Issues

Prepared by/Author: AEM, Inc.

Preparer/Author Address: Malvern, PA 19355

Prepared For: Distribution

Date Published: August 15, 2000

Key Words and Phrases:

Reference Type: R

ReferenceID: 25

Title: *Letter to PRP re: Case Histories: Contaminated Sediment Sites (with oral response from Mead Corporation)*

Location: AEM

Category: Site Update

Prepared by/Author: AEM, Inc. with oral response from Mead Corporation

Preparer/Author Address: Malvern, PA 19355

Prepared For: Mead Corporation, submitted to

Date Published: May 14, 1999

Key Words and Phrases:
