

## **GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS**

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**Project Name** **NATURAL GAS COMPRESSOR STATION** **ProjectID:** 04-01  
**Last Updated:** 02/14/02

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**City:** Kosciusko

**County:** Attala

**State:** MS

**Country:** USA

**Bodies of Water:** Little Conehoma Creek

**US EPA Region:** IV

**Status (Active, Complete, or Monitoring Only):** Complete

**Date On NPL:** N/A

**ROD/ESD Date:** N/A

**Operable Unit:** N/A

**Areas of Concern (length or acres):** Drainage ditches, floodplains, and two-mile length of Little Conehoma Creek.

**Other Characteristics of Water Body:** The water body targeted was the Little Conehoma Creek, which flows into the Conehoma Creek about two miles from the compressor station; the Conehoma Creek in turn flows into the Yockanookany River. The creek in the two mile targeted stretch is about 15-25 feet wide.

**Contaminants of Concern:** PCBs (1242)

**Source of Contamination:** PCBs in lubricating oils used in natural gas pipeline compressors.

**Contaminated Area** Creek bed sediments; floodplains.

**Physical Characteristics:**

**Type of Regulatory Action:** US EPA Consent Decree.

**Overall Status Summary:** PCBs originated in lubricating oils used in natural gas pipeline compressors. PCB emissions led to contamination levels above cleanup criteria in an earthen disposal pit, site soils, drainage ditches, and nearby Little Conehoma Creek and its floodplains. The response and remediation requirements for this and other of the company's natural gas pipeline compressor stations were defined in a 1989 consent decree with EPA.

Removal of sediments in the Little Conehoma Creek was accomplished in the dry using conventional earth-moving equipment. The removal was from 26 discrete sediment areas over a two-mile stretch immediately downstream of the compressor station. The creek flow was diverted by pumping to a nearby tributary to allow dry excavation. The cleanup criterion in the creek was 1 ppm PCBs. Floodplains were also remediated in 31 discrete areas by excavation to 5 ppm or less PCBs. A total of 51,432 cy of stream sediments and 8,290 cy of floodplain soils were removed. Disposal was at a TSCA-permitted landfill in Emelle, AL. Another 23,883 cy of material were excavated from an earthen pit, surface soils, and drainage ditches and disposed in the same manner.

Excavated floodplain areas were backfilled to original grade with clean fill. Stream sections were restored, to the extent practical, to their pre-remediation hydraulic characteristics by the placement and grading of clean backfill, seeding, and the installation of erosion control matting.

The work was accomplished from April 1996 through September 1997.

**Remedial Action Planned:** ☒

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***Risk Assessment:***                      ☐

***Remedial Action Implemented:***   ☒

***Status of Dredging***                      ☐

***PRPs:***                                      ☐

***Contacts:***                                ☒

***References:***                            ☒

***Modeling:***                               ☐

***Fishing Advisory:***                    ☐

***Key Conditions:***                      commercial landfill, floodplains targeted, property access issues

## REMEDIAL ACTION PLANNED

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**Target Sediment Cleanup Standards (TSCS):** Creek sediments: 1 ppm PCBs

**How TSCS Established:** Negotiated level contained in National Consent Decree

**Target Bank and Floodplain Cleanup Levels (if applicable):** Floodplain: 5 ppm PCBs

**Other Target:**

### **Environmental Sample Data**

#### **References:**

- **Sediment:** A-741, A-742, and A-743
- **Water:** A-741, A-742, and A-743
- **Fish:**

**Estimated Target Volume:**

**Planned Disposal Method:**

**Estimated Calendar Time to Implement Remedy:**

**Estimated Time to Implement Remedy:**

**Estimated Cost to Implement Remedy:**

**Stated Remedial Action Objectives (and Source):** Removal of PCBs in creek sediments and in floodplains in compliance with National Consent Decree.

**Measures of Success to be Used:**

**Planned Monitoring and Restoration:**

**Agency Position on Sediment Removal (and Source):**

## REMEDIAL ACTION IMPLEMENTED

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<b>Project Name:</b>	<b><u>NATURAL GAS COMPRESSOR STATION</u></b>	<b>ProjectID:</b> 04-01
<b>Last Updated:</b>	02/14/02	
<b>Physical Target:</b>	Creek sediments and floodplain soils which exceeded cleanup criteria for PCBs defined in a 1989 consent decree.	
<b>Goals:</b>	Comply with consent decree requirements for removal and disposal of PCB contaminated soils and sediments.	
<b>Primary Contractor:</b>	Consoer Townsend Envirodyne Engineers; OHM	
<b>Other Contractors:</b>	Woodward-Clyde Consultants; Acadian Environmental	
<b>Generic Remediation Method:</b>	Dry excavation	
<b>Equipment:</b>	Conventional earth-moving equipment, including a Caterpillar 320 and a "long stick" excavator.	
<b>Material Handling:</b>	<p>The excavation in the creek was done in the dry. A tributary upstream of the station was used to receive a diverted flow from the Little Conehoma Creek. In other words, the Little Conehoma Creek was dammed up upstream of the compressor station and flow was pumped into the tributary. The tributary then flowed back into the Little Conehoma about a mile and a half downstream of the station, so that a roughly one and one half mile stretch of the creek was dry. Little or no dewatering of the excavated material was done. Typically, it was dry enough to put directly into vehicles for transport to Emelle. In a few instances, a little fly ash or lime was mixed in to make the material dry enough to transport by truck. The excavated material was trucked out to two lay down areas near Route 35, adjacent to the creek. A lined depressed area was used to stockpile excavated material prior to its being loaded onto trucks.</p> <p>The targeted water body was about two miles of creek, starting opposite the former earthen pit at the compressor station, and traveling to just before the confluence with the Conehoma Creek. The major sediment remediation in the creek was adjacent to the station. Opposite the earthen pit was an outfall pipe that historically emptied into the creek. At this point, which is called Section 26, excavation depths of 8 to 10 feet deep were necessitated to reach the 1 ppm level. And, in certain instances, a track hoe was put into the creek to finish the excavation. Although the long stick excavator could reach all areas of the creek from the banks of the creek, it couldn't obtain enough leverage in some areas, particularly at depth, so the track hoe was put in to the creek to finish the excavation. Effectively, bank to bank dredging was done in the portion of the creek that wraps around the station, and bank to bank continued down past the first bridge just down gradient from the station. Beyond that point, discrete "hot spots" were targeted and for this project a hot spot was defined as any area &gt;1 ppm PCBs.</p> <p>At the approximate 1.5 mile point (from the station site), where the tributary rejoins the creek, and beyond that point, were only a few isolated hot spots. These were removed by first isolating them with an earthen dam on either side, pumping out the creek water, then pumping the creek flow around the dammed portion, and then excavating the hot spot in the dry.</p> <p>Soils, sediments, and other materials excavated from the remediation areas were transported offsite for disposal using dump trailers and roll-off boxes</p>	
<b>Volume Removed:</b>	51,432 cy of stream sediments; 8,290 cy of floodplain soils; 23,883 cy of soils from an earthen pit, drainage ditches, and onsite ground areas	
<b>Calendar Time:</b>	April 15, 1996 to September 30, 1997	
<b>Time To Implement:</b>	17.5 months	

## REMEDIAL ACTION IMPLEMENTED

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<b>Total Cost:</b>		
<b>Dredging Cost:</b>	N/A	
<b>Disposal of Sediment:</b>	Offsite TSCA-permitted landfill (Emelle, AL); 5,985 loads totaling 126,888 tons (83,605 cy, which included the 51,432 cy of stream sediments)	
<b>Volume of Water:</b>	124 batches of excavation-associated water, totaling 4.4 million gallons, were treated and discharged during the course of remediation.	
<b>Method of Water Treatment:</b>	The two temporary water treatment systems included water storage tanks for filtered water and lagoons for unfiltered water, and filtration equipment consisting of sediment filters, granular activated carbon columns, pumps, and piping.	
<b>Water Discharge Limit:</b>	pH 6.5-9.0; TSS not greater than 45 ppm (daily max.); and ND for PCBs	
<b>Air Monitoring During Remediation:</b>		
<b>Water Monitoring During Remediation:</b>	N/A	
<b>Outcome:</b>	<p>Removal and offsite disposal of 83,605 cy of combined soils and sediments were successfully accomplished in 1996-1997 at a natural gas compressor station in response to PCB contamination. Remediation requirements were defined in a consent decree with EPA.</p> <p>Excavation in the creek was typically to about one foot depth, however, verification sampling was done and dictated when to stop excavating. Verification sampling was typically done every 25 feet longitudinally and, at each such location, three discrete samples were taken and analyzed, one from the far bank, one from the center bottom of the creek, and one from the near bank. Excavation and collection of verification samples continued until the 1 ppm PCB cleanup criterion was confirmed.</p>	
<b>Restoration and Post-Monitoring:</b>	<p>Site restoration and demobilization activities included the placement of backfill, gravel, and topsoil, decontamination and verification sampling of remediation equipment, final site grading, and permanent stabilization of areas disturbed during remediation activities. Site restoration and backfilling activities were initiated during July 1996 in areas where remediation had been completed and continued throughout the course of the project. Restoration of stream sections was completed by September 30, 1997. Initial seeding and application of mulch commenced in July 1996 and continued through September 1997. Remediation equipment was demobilized from the site, as required, throughout the course of remediation activities.</p> <p>Stream sections were restored, to the extent practical, to their pre-remediation hydraulic characteristics. Restoration included the placement and grading of clean backfill material, seeding, and the installation of erosion matting. A minimum of two feet of clean backfill was installed along the banks of Section 26 where PCB concentrations remained in excess of the stream cleanup level. Similarly, the north bank of Section 8 and the bottom of Section 16 were also restored with clean backfill material to isolate the residual PCB contamination remaining in these areas. (Reference A-739)</p>	
<b>Site-Specific Difficulties:</b>	<ul style="list-style-type: none"><li>• Access to the two-mile stretch of Little Conehoma Creek for remediation was accomplished by the company by purchasing the property.</li><li>• Early on, balloon dikes were used to try to isolate areas of the creek so that dry excavation could be done. They proved ineffective in that when there was a storm, the water level rose and the dikes were overtopped and, ultimately, their use was discontinued. This was tried initially and then,</li></ul>	

## **REMEDIAL ACTION IMPLEMENTED**

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after these failed, the contractor resorted to pumping all of the creek flow to the tributary.

### **Monitoring Data**

#### **References:**

- **Sediment**
- **Water:**
- **Fish:**

## **KEY CONTACTS**

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***Project Name*** **NATURAL GAS COMPRESSOR STATION**

***ProjectID:*** 04-01

***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:***

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## REFERENCES

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**Project Name** NATURAL GAS COMPRESSOR STATION

**ProjectID:** 04-01

**Reference Type:** A

**ReferenceID:** 739

**Title:** *Site Verification Report; Kosciusko Compressor Station; Site Remediation; Kosciusko, Mississippi*

**Location:** AEM

**Category:** Contaminated Sediments: Remediation Final Report

**Prepared by/Author:** Consoer Townsend Envirodyne Engineers, Inc.

**Preparer/Author Address:** 2751 Prosperity Avenue, Suite 200  
Fairfax, VA 22031

**Prepared For:** Texas Eastern Transmission Corporation

**Date Published:** December 1997

**Key Words and Phrases:**

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**Reference Type:** A

**ReferenceID:** 741

**Title:** *Site Remediation Work Plan; Texas Eastern, Kosciusko, MS, Compressor Station, Volume I*

**Location:** AEM

**Category:** Remedial Action Plan/Work Plan

**Prepared by/Author:** Woodward-Clyde Consultants

**Preparer/Author Address:** 2822 O'Neal Lane  
Baton Rouge, LA 70816

**Prepared For:** Texas Eastern Transmission Corporation

**Date Published:** December 1995

**Key Words and Phrases:**

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**Reference Type:** A

**ReferenceID:** 742

**Title:** *Site Remediation Work Plan; Texas Eastern, Kosciusko, MS, Compressor Station, Volume II*

**Location:** AEM

**Category:** Remedial Action Plan/Work Plan

**Prepared by/Author:** Woodward-Clyde Consultants

**Preparer/Author Address:** 2822 O'Neal Lane  
Baton Rouge, LA 70816

**Prepared For:** Texas Eastern Transmission Corporation

**Date Published:** December 1995

**Key Words and Phrases:**

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## **REFERENCES**

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**Project Name** **NATURAL GAS COMPRESSOR STATION**

**ProjectID:** 04-01

**Reference Type:** A

**ReferenceID:** 743

**Title:** ***Site Remediation Work Plan; Texas Eastern, Kosciusko, MS, Compressor Station, Volume III***

**Location:** AEM

**Category:** Remedial Action Plan/Work Plan

**Prepared by/Author:** Woodward-Clyde Consultants

**Preparer/Author Address:** 2822 O'Neal Lane  
Baton Rouge, LA 70816

**Prepared For:** Texas Eastern Transmission Corporation

**Date Published:** December 1995

**Key Words and Phrases:**

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**Reference Type:** L

**ReferenceID:** 41

**Title:** ***Memo re: Trip to Natural Gas Compressor Station to Witness Remediation of the Little Conehoma Creek.***

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author Address:** Malvern, PA 19355

**Prepared For:** Internal file

**Date Published:** November 1, 1996

**Key Words and Phrases:**

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