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EPA Superfund
Explanation of Significant Differences:

AMNICOLA DUMP
EPA ID: TND980729172
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CHATTANOOGA, TN
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Region IV

EXPLANATION OF SIGNIFICANT DIFFERENCES AND START OF REMEDIATION ACTIVITIES

AMNICOLA DUMP SUPERFUND SITE
CHATTANOOGA, TENNESSEE

AUGUST 1993

INTRODUCTION

The Amnicola Dump Superfund Site (the Site) is located within the city limits of Chattanooga, Tennessee (See Figure 1). The purpose of this document is to provide additional information on the selected remedy for the Site described in a Record of Decision (ROD) issued on March 30, 1989 and to notify the public of the start of the remediation activities.

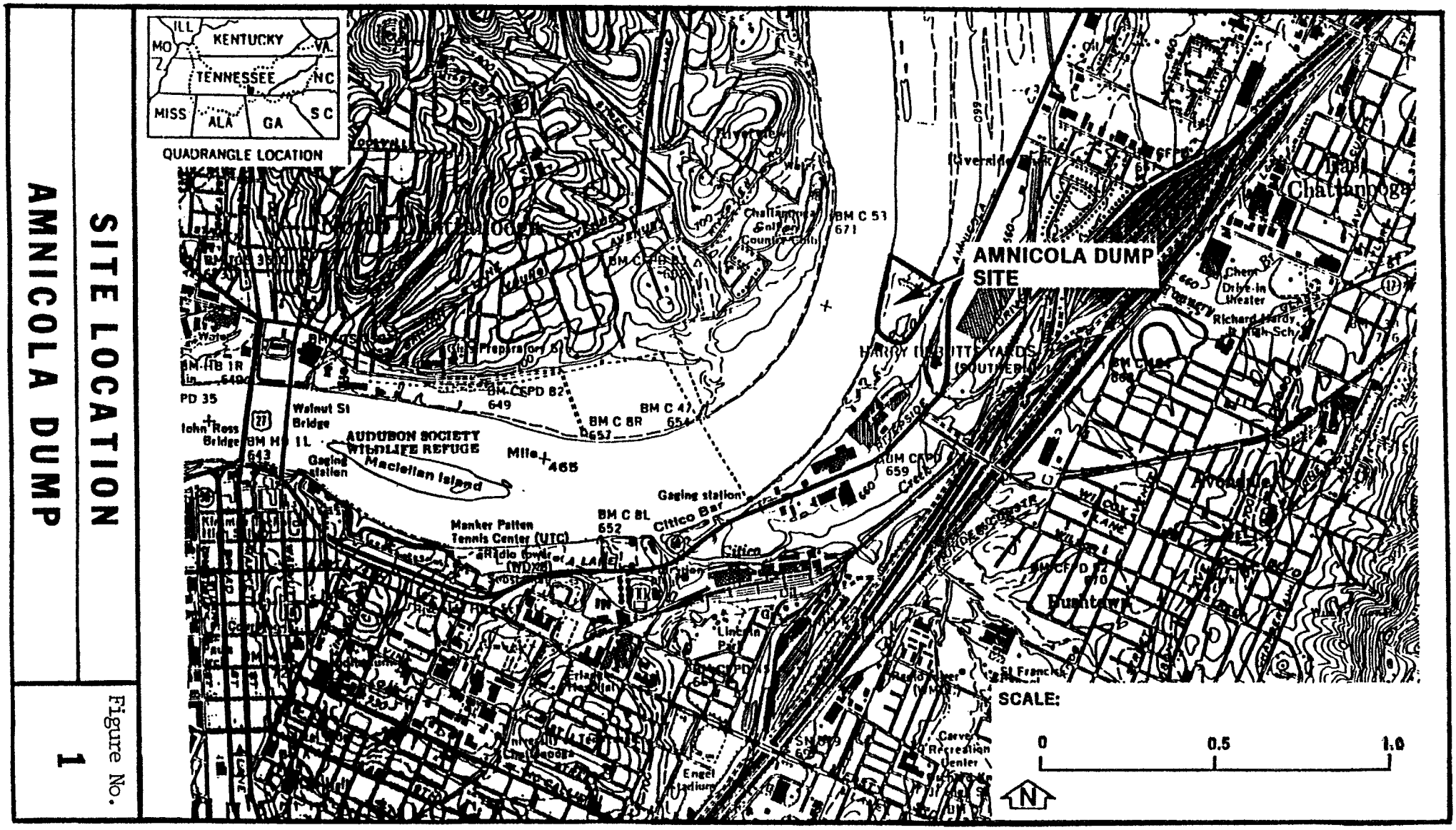
This Explanation of Significant Differences (ESD) is being issued by the U.S. Environmental Protection Agency (EPA), the lead agency for Site activities, and the Tennessee Department of Environment and Conservation (TDEC), the support agency for this response action. This document is issued as part of the public participation responsibilities under Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Section 300.435 (c)(2)(1). An ESD is published when the differences in a remedial or enforcement action, settlement, or consent decree significantly change but do not fundamentally alter the remedy selected in the ROD with respect to scope, performance, or cost.

This notice includes information on activities that are being modified from the ROD. The Administrative Record contains the information upon which the ROD was based. This ESD and supporting documentation will become a part of that Administrative Record which is located in the following places:

Chattanooga/Hamilton County
Bicentennial Library
1001 Broad Street
Chattanooga, Tennessee 37402
Tel. (615) 757-5029

Superfund Records Center
USEPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365
Tel: (404) 347-0506

This document is also being issued to notify the public of the start of the Site cleanup activities. EPA in consultation with TDEC is completing review on the Remedial Design (RD) report for the Site. Site cleanup work is scheduled to start in the



Source: Chattanooga USGS Topographic Quadrangle (105 - SE) Map

summer of 1993 and will be completed by the fall of 1993. Work will be conducted by the Potentially Responsible Parties (PRPs) under a Consent Decree (CD) with EPA. EPA and TDEC will oversee all activities to assure that State and Federal requirements are met.

SUMMARY OF SITE HISTORY, CONTAMINATION PROBLEMS, AND SELECTED REMEDY

Site History and Contamination Problems

The Site is an 18-acre inactive construction debris disposal site located in Chattanooga, TN. Bordered on the south by Syn-Air Research, on the west by the Tennessee River, on the north by dense vegetation and vegetation-covered debris (scrap metal, railroad ties, etc.), and on the east by the Amnicola Highway, it is approximately 1/2 mile upstream of the intake for the Tennessee-American Water Company which is the primary water source for the City of Chattanooga. An on-site pond, located in the northwest corner of the Site, occupies approximately four acres between the northwest part of the dump and the river.

From mid-1970 to 1973, the Site was operated as a construction debris disposal area by the City of Chattanooga. The debris disposed included 25 percent or less household-type waste. A substantial portion of the wood waste taken to the Site during this period was incinerated by an air-curtain destructor with the ashes placed on-site. Approximately 12 acres of the 18-acre site were eventually filled.

Consolidated Latex, Inc., formerly located on the south border of the Site, allegedly disposed of latex waste in the southwest corner. In 1971, the Tennessee-American Water Company noted the dumping of latex waste as well as the presence of a strong styrene-like odor during one leachate sampling event. Concern arose because of the proximity of the water company's intake, 1/2 mile downstream, from this leachate stream and alleged latex disposal location. Latex waste is the only industrial waste reportedly disposed at the Site.

In May 1972, EPA recommended closure of the Site to eliminate discharge of leachate. During the summer of 1973, the City of Chattanooga finalized closure of the Site which included covering the disposal area and constructing drainage ditches.

The Tennessee Department of Health and Environment (TDHE) conducted a site visit in July 1979 and noted that the Site was in good overall condition; however, some discoloration of water was observed in one, of the drainage ditches. EPA recommended an evaluation of historical water data and further water sampling.

In May 1982, the TDHE tasked MCI/Consulting Engineers to conduct a study of the leachate originating from the Site. Sampling of a leachate stream indicated the presence of trichloroethylene, vinyl chloride, and 1,2 trans-dichloroethylene.

The Site was proposed for inclusion on the National

Priorities List (NPL) in December 1982. The Site was finalized on the NPL in September 1983. The primary factor contributing to this score was the Site's proximity to Chattanooga's water intake.

EPA, during a December 1986 site visit, noted that Site conditions varied from previous reports. EPA reported that the Site was now being used as a storage area for heavy equipment, railroad ties, and scrap metal. The cap had been cleared of vegetation, much of the rip-rap along the bank had been removed, and leachate was noted in the southwest corner of the Site.

A Remedial Investigation (RI) of the Site commenced in July 1987; an on-site field investigation was carried out from January through March 1988. EPA conducted this RI to determine the nature and general extent of Site contaminants. A Feasibility Study (FS) was also conducted by EPA to evaluate alternatives for Site cleanup. Both the RI and FS Reports were submitted in draft final form to the public information repository on January 30, 1989.

Sampling data from the RI indicated that some soil on the Site contained concentrations of Polynuclear Aromatic Hydrocarbons (PAHs) above acceptable health based levels. Other contaminants at the Site except for chromium in the groundwater were detected at low concentrations.

Selected Remedy

On March 30, 1989, EPA issued a Record of Decision (ROD) for the Site which selected a remedy for the contamination detected. The major remedy components selected for the Site consisted of excavation of soil and debris, solidification of the soil, and groundwater monitoring. Specifics of the remedy are outlined below.

Surface Soil Remediation

EPA proposed to excavate approximately 600 cubic yards of PAH contaminated surface soil down to approximately two feet below ground surface. Once excavated, the debris (scrap metal, wood, etc.) would be screened from the soil and sent off-site for disposal. The remaining 400 cubic yards of soil would be treated above ground and on-site. Treatment would occur by mixing the soil with stabilizing agents, such as fly ash, cement, or kiln dust, resulting in a finished product that resembles a concrete monolith. Contaminants would be mechanically locked in this solidified mass for a long period of time. The solidified mass would be placed back in the ground at a location above the ground water table and outside the 100-year floodplain. A 12-inch thick layer of topsoil would then be placed over the monolith. Treatability or bench-scale studies would be conducted during the Remedial Design (RD) to determine the most appropriate stabilizing agents. Land use restrictions would be imposed on the Site to prevent the accumulation of additional areas of soil contamination.

Groundwater Monitoring

Alternate Concentration Limits

(ACLS) have been established for the Site due to the presence of chromium at a level exceeding the Primary Drinking Water Standard in one monitoring well. Establishment of ACLs is allowed under certain circumstances where ground water contaminants discharge into a body of surface water. ACLs can only be established if there are no current groundwater users between the Site and the surface water, and institutional controls are in place to prevent such users in the future, and if there will be no measured or projected increase of contaminants in the surface water from the ground water. At Amnicola, the resulting diluted concentrations of groundwater entering the surface water will be non-detectable.

A quarterly monitoring program will be conducted for those ground water constituents of concern. A public health assessment will be conducted within five years following remedial action to assess potential changes in site risk.

Following the issuance of the ROD, EPA mailed Special Notice Letters to the PRPs requesting their voluntary participation to implement and finance the selected remedy. A good faith offer was received from SMC Corporation, Southern Foundry Supply and the City of Chattanooga. Formal negotiations continued with the PRPs and an agreement between the PRPs and EPA, for the PRPs to conduct the final cleanup, was lodged with the United States District Court on May 24, 1991.

DESCRIPTION OF SIGNIFICANT DIFFERENCES AND BASIS FOR THE DIFFERENCES

During the Remedial Design (RD) in 1991 and early 1992, EPA required the PRPs to take additional samples to further define the extent of PAH contaminated soil. This sampling was necessary to develop the specific details of the RD. The additional sampling data revealed that the PAH contaminated soil was less extensive than originally estimated. Based on this new data, calculations were made estimating the cost to solidify the smaller amount of material on-site compared to disposing of the soil with an off-site disposal facility. Estimates indicated that off-site disposal costs would be approximately one half the amount of on-site disposal. Also, due to the verification process involved with the on-site solidification, off-site disposal would occur in a shorter time frame than would solidification. Based on this information, the contaminated soil will be disposed off-site along with the Site debris. The remediation. goals for the soil and groundwater have not changed from the standards established in the 1989 ROD.

Additional information regarding the significant differences and the basis for such differences is contained in the Administrative Record.

START OF THE REMEDIAL ACTION

Excavation and shipping of the contaminated soil and debris will begin in the summer of 1993 and will last approximately 3 months. The

soil and debris will be excavated and placed into trucks for shipment. The material will then be shipped to disposal facilities approved for the waste types being sent. Once the wastes are removed, and the remediation complete, groundwater monitoring will occur as necessary to verify the protection of human health and the environment.

IMPACT ON COMMUNITY

A site-specific Health and Safety Plan will be completed which includes measures for protecting personnel involved in the cleanup and the surrounding community. The plan will include monitoring for early identification of potentially dangerous situations that might be encountered and how such situations should be addressed.

At different times during the 3 months, excavation and trucking equipment will be entering and leaving the Site. Once the soil and debris have been removed, only inspection and monitoring personnel will be visiting the Site.

SUPPORT AGENCY COMMENTS

As the support agency for this response action, the Tennessee Department of Environment and Conservation (TDEC) has reviewed the information contained in this ESD/RA Fact Sheet and concurs with the changes made to the selected remedy.

AFFIRMATION OF THE STATUTORY DETERMINATIONS

Considering the new information that has been developed and the modifications that have been made to the selected remedy, the EPA and TDEC believe that the remedy, as set forth in the ROD and modified by this ESD, remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action, and is cost effective.

In addition, the modified remedy utilizes permanent solutions and alternative treatment (or resource recovery technologies) to the maximum extent practicable for this Site.

PUBLIC PARTICIPATION ACTIVITIES

This fact sheet along with notice in a local newspaper provides public notice of the ESD, including the reasons for such differences. Supporting information is included in the Administrative Record and is available for public review. Comments or questions on this ESD should be mailed to Felicia Barnett, Remedial Project Manager, at the address shown below.

A Technical Assistance Grant (TAG) of up to $50,000 for each Superfund Site can be obtained by an affected community to enable them to hire technical advisors to assist in interpreting EPA's findings and specifications. Only one TAG can be awarded per site, and the community must provide a 20% match in funds or services to the amount provided by EPA. Anyone interested in applying for a grant should contact Suzanne Durham, Community Relations Coordinator, at 1-800-435-9233.

For further information concerning the Site, contact Felicia Barnett, Remedial Project Manager, or Suzanne Durham, Community Relations Coordinator, at 1-800-435-9233 or at the following address:

USEPA, Region IV
Waste Management Division
North Superfund Remedial Branch
Kentucky/Tennessee Section
345 Courtland Street, N.E
Atlanta, GA 30365

Patrick Tobin
Acting Regional Administrator
Region IV

7/13/93
DATE

If you know of someone who would like to be placed on EPA's mailing list to receive information about the Amnicola Dump Superfund Site, please have them complete this form and return it to Ms. Suzanne Durham, Community Relations Coordinator, at the address above.

NAME:

ADDRESS:

TELEPHONE:

AFFILIATION, IF ANY:

Region 4

U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

North Superfund Remedial Branch
Suzanne Furham, Community Relations Coord.
Felicia Barnett, Remedial Project Manager

Official Business
Penalty for Private Use $300