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November 14, 2001

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PROPOSED REMEDIAL ACTION DOCUMENT

**HARVEY INDUSTRIES STATE SUPERFUND
SITE
ATHENS, HENDERSON COUNTY, TEXAS**



November 14, 2001

*PREPARED BY:
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
SUPERFUND CLEANUP SECTION
REMEDICATION DIVISION*

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HARVEY INDUSTRIES STATE SUPERFUND SITE PROPOSED REMEDIAL ACTION DOCUMENT

1 INTRODUCTION

1.1 Statement of Basis and Purpose

This *Proposed Remedial Action Document (PRAD)* presents the recommended *Remedial Action*, which is designed to ensure the protection of public health and the environment at the Harvey Industries State Superfund Site. The selection of the remedial action was made in accordance with the *Texas Solid Waste Disposal Act (TSWDA)*, codified as the Texas Health and Safety Code, Chapter 361, and all applicable state and federal environmental regulations.

The purposes of this document are to:

- 1) describe the actions taken by the *Texas Natural Resource Conservation Commission (TNRCC)* to investigate and mitigate the contamination at the site;
- 2) solicit public review and comment on the actions taken and decisions made by the TNRCC with regard to the proposed remedial action; and
- 3) provide information on how the public can comment on the actions taken by the TNRCC with regard to the proposed remedial action.

This PRAD summarizes information that can be found in greater detail in various studies and reports located in the site files. (Words appearing in italics in this document are defined in Section 5, the Glossary.) Relevant documents that are summarized in this PRAD include the:

- 1) *Hazard Ranking System (HRS)* document, which consists of the preliminary evaluation (ranking) that qualified the site for proposal to the State Registry;
- 2) *Remedial Investigation (RI)* Report, which contains the technical report from the state's consultant, and has the results of the sampling and analyses data collected during the remedial investigations at the site,
- 3) *Baseline Risk Evaluation (BRE)* Report, which assesses the potential human health and ecological risks posed by contamination at the site; and,
- 4) *Presumptive Remedy Document (PRD)*, which describes and evaluates the alternatives for cleaning up the site.

The TNRCC encourages the public to review these documents in order to gain a better understanding of the site, the State Superfund process, and the actions taken by the TNRCC. Copies of the documents summarized in this PRAD, as well as other relevant information, can be found in Athens at the:

Henderson County Library
121 South Prairieville
Athens, Texas 75751

or in Austin at the:

TNRCC
12100 Park 35 Circle
Building D, Room 190
Austin, Texas 78753

1.2 Site Location

The site occupies 88 acres and is located on the southeast corner of the intersection of Farm Road 2495 and Texas 31 near Athens, Henderson County, Texas (see Figure 1).

1.3 Site History

1.3.1 Site Operating History

Olive and Myers Manufacturing, which later became Curtis Mathes Manufacturing Company, first developed the manufacturing facility site in Athens, Texas in 1955. The facility was used to manufacture television cabinets and circuit boards. A landfill was permitted for the Curtis Mathes facility in March 1973. The landfill received sawdust, wood, cardboard, plastic, styrofoam, floor sweeping, general refuse, ash from the boiler fire-box, drums of paint sludge, solvent-soaked rags and other chemical wastes. Curtis Mathes also operated a fire-training pit on the property. In December 1981 and January 1982, Curtis Mathes conducted fire-training schools in which approximately 16,500 gallons of accumulated chemical wastes were placed in the pit and set ablaze.

Harvey Industries leased the facility from Curtis Mathes in August 1982. Harvey Industries entered into a compliance agreement with the Texas Department of Water Resources on July 26, 1985. Under the agreement, the incineration of hazardous materials was to cease until an air permit could be obtained, and the fire-training pit was to be remediated and closed. A closure certificate was submitted for the incinerator on March 11, 1986. Harvey Industries filed Chapter 7 in U.S. Bankruptcy Court in 1992. In November 1993, the state entered into an agreement with a third party, Lorax Corp.

(Lorax), which allowed Lorax to clean up the on-site warehouse and property in exchange for leasing the warehouse.

1.3.2 Removal Activities

During a Lorax-financed investigation by CURA, Inc. (CURA) in 1994, elevated concentrations of cadmium were reported in soil samples collected from the incinerator courtyard. The cadmium-contaminated soil surrounding the incinerator was excavated and treated by chemical fixation. The treated soil was then transported for disposal at a landfill in Avalon, Texas.

CURA also conducted a removal and remedial investigation of three diesel aboveground storage tanks (ASTs) and the ancillary equipment located south of the vehicle maintenance building in October 1994 on behalf of Lorax. The petroleum-contaminated soil was removed from the site for disposal and the excavation was backfilled with clean backfill material. No dissolved phase fuel hydrocarbon concentrations have been detected in wells MW-54 or MW-55 both down gradient of the former AST area or in wells MW-3 or MW-57 which are adjacent to the area. Therefore, groundwater has not been adversely impacted by releases from the diesel storage tanks.

1.3.3 Remedial Investigation Activities

Early investigations by Harvey Industries, from 1985 through 1992, identified methyl ethyl ketone (MEK), isobutyl alcohol (IBA) and toluene in the groundwater beneath the former fire-training pit. Benzene and chlorobenzene were detected in low concentrations from groundwater beneath the landfill. Harvey Industries installed a groundwater recovery and treatment system for the fire-training pit in 1989. The system operated until 1992 and ceased operation when Harvey Industries filed for bankruptcy. Subsequent investigations in these areas show these constituents not to be contaminants of concern.

TNRCC began the Remedial Investigation (RI) process in March 1996. Two phases of investigation were conducted. Samples were collected from surface soils, subsurface soils, groundwater, surface water and sediments. Additionally, several geophysical surveys were conducted. The findings of the RI are summarized in the *Remedial Investigation Report for the Harvey Industries State Superfund Site* (July 1988). Subsequent investigations were performed by TNRCC to evaluate specific concerns; these investigations are summarized in the *Technical Memorandum: Results of Harvey Industries Sampling* (February 2000) and the *Harvey Industries State Superfund Site, Well Installation and Groundwater Monitoring Report* (August 2001).

1.3.4 Baseline Risk Evaluation

A baseline risk evaluation (BRE) was completed for the Harvey Industries site in August 2001. This evaluation was performed using a non-residential land use scenario as determined under the Texas Risk Reduction Rule (TRRR) Section 335.552(4).

The data from the remedial investigations at the Harvey Industries site were evaluated in the BRE to determine whether additional remedial actions or investigation were needed. Twelve constituents of potential concern (COPCs) were evaluated in this report. Arsenic was found to be naturally occurring in surface and subsurface soils at the site and considered to be consistent with background levels. In surface soils, subsurface soils, and sediments, levels of remaining COPCs were below human health and groundwater protection action levels as determined in TRRR Section 335.558. Therefore, no further action is required for the surface soils, subsurface soils, and sediments at the site. A deed notice will be placed in the county deed records as per TRRR Section 335.566 since contaminants will be left in place above background concentrations and to maintain the integrity of the asphalt cover over the closed landfill.

In groundwater, four heavy metals were found to be above cleanup goals at the Harvey site. The remaining COPCs were below human health ingestion action levels for groundwater. Table 1 summarizes the constituents of concern (COCs) and the cleanup goals determined in the BRE for the groundwater at the site.

TABLE 1
GROUNDWATER CLEANUP GOALS

Constituents of Concern	Maximum Concentration Detected (mg/l)	Cleanup Goal¹ (mg/l)
Arsenic	0.080	.05
Beryllium	0.0058	0.004
Lead	0.036	0.015
Nickel	0.17	0.1

Notes:

¹ - Cleanup goal based on groundwater ingestion ($^{GW}_{Ing}$)

mg/l - milligrams per liter

2. PROPOSED REMEDIAL ACTION

2.1 Basis of Selection

2.1.1 Soils & Sediments

Based on the evaluation of the data from the Harvey Industries State Superfund Site in the BRE, no further action is required for the surface soils, subsurface soils and sediments at the site. Deed recordation will be required since contaminants are left in place above background concentrations and to maintain the integrity of the asphalt cover over the closed landfill.

2.1.2 Groundwater

Based on the evaluation of the Harvey Industries State Superfund Site using the presumptive remedies process for groundwater (*Presumptive Remedies for Groundwater at Texas State Superfund Sites*, August 2001), monitored natural attenuation (MNA) is the recommended cleanup alternative for site groundwater. This decision is based on the following information:

- 1) Concentrations of arsenic, lead, beryllium, and nickel are relatively low when compared to their cleanup values.
- 2) Concentrations of metals contamination show a general declining trend at the site. While the attenuation of metals does not utilize all the mechanisms affecting volatile organic compounds, adsorption and dilution will reduce metals concentrations at the site.
- 3) The pH in the area of contaminated groundwater is lower than the pH observed near the site boundaries. As the groundwater migrates, the pH is expected to increase, which will reduce the mobility and concentrations of the COCs in the groundwater.
- 4) The metals contaminated groundwater is confined within the site boundaries. Downgradient perimeter wells are not contaminated at levels above the cleanup goals. Because the site perimeter is not contaminated, neighboring properties will not be impacted by the groundwater contamination plume.
- 5) A deed notice will be placed in the county deed records to provide notice of the contamination in the shallow aquifer during the monitoring period.

2.2 Description of Recommended Remedy

Groundwater

Key elements of a MNA remedy are source control and long term performance monitoring. Contaminated surface soil at the site was removed through previous removal

actions. The source of inorganic contaminants at the site is the closed landfill. However, concentrations of groundwater contaminants have declined over time and the closed landfill area is partially covered with an asphalt parking area.

Inorganic contaminants in groundwater at the Harvey Industries site are expected to be reduced through a combination of dispersion, dilution, and adsorption processes. As groundwater migrates from the source area, the pH is expected to increase, increasing the adsorption of the inorganic COCs to soil minerals with distance from the source.

Based on evaluation of available data, groundwater should be monitored at the site to confirm the natural attenuation of arsenic, beryllium, lead, and nickel in the shallow groundwater. Groundwater should be monitored quarterly for at least one year to evaluate any seasonal fluctuations in groundwater quality and then semi-annually until natural attenuation has reduced COC concentrations below the medium specific concentrations.

When chemical concentrations for all COCs have remained below the medium specific concentrations for two successive semi-annual monitoring events, the MNA will be considered complete. The remaining monitor wells should be plugged and abandoned at that time.

2.3 Evaluation of the Proposed Remedial Actions

Groundwater

The selected remedy, monitored natural attenuation, has been evaluated with respect to 30 TAC Section 335.348(k) (presumptive remedies) as follows:

- 1) Long-term Effectiveness: The deed notice will give notice of the contamination in the groundwater to prevent exposure over an extended period of time.
- 2) Compliance with Applicable Regulations: As the deed notice will give notice of contamination in the groundwater and the long term monitoring will indicate whether the contaminant plume is migrating toward offsite property, this remedy meets this criterion.
- 3) Reduction of Toxicity, Mobility and Volume: Although contaminant volume will not be reduced, it is anticipated that groundwater quality will improve, due to dispersion, dilution, and adsorption processes.
- 4) Relative Cost: As per Harvey Industries State Superfund Site Groundwater Presumptive Remedy Report, this remedy is the most cost effective of all remedies considered and includes only the cost of the long term groundwater monitoring program.

- 5) Impacts and Implementation: There are no anticipated impacts due to implementation of this remedy.
- 6) Technical Merit: This remedy is easily implemented and has been shown to be effective at other state Superfund sites which have limited areas of groundwater contamination with low concentrations of contaminants.

3 SUMMARY OF RECOMMENDED REMEDIAL ACTION

3.1 Soils and Sediment

As a result of an evaluation of the data collected in the remedial investigations, no further action is required for the surface soils, subsurface soils and sediments at the Harvey Industries site. A deed notice will be placed in the county deed records as per TRRR Section 335.566, indicating the soils at the site have been remediated to meet commercial/industrial medium specific concentrations and requiring continued maintenance of the landfill's asphalt cap.

3.2 Groundwater

As a result of an evaluation of the six above mentioned criteria, the TNRCC recommends monitored natural attenuation as the most cost-effective remedy for groundwater at the Harvey Industries site. This recommendation is consistent with the state remedy selection criteria found in the Health and Safety Code, Section 361.193, in that it is the lowest cost alternative that is technologically feasible and reliable and effectively mitigates and minimizes damage to and provides adequate protection of the public health and safety or the environment under an industrial land use scenario. A deed notice will be placed in the county deed records as per TRRR Section 335.566 to provide notice of the existence of shallow groundwater contamination during the monitored natural attenuation period.

4 COMMUNITY PARTICIPATION IN THE SUPERFUND PROCESS

The public is invited to comment on the proposed remedial action for the Harvey Industry site. All persons desiring to make comments may do so prior to or at the *Public Meeting*. The meeting is scheduled for Tuesday, December 18, 2001, beginning at 7:00 p.m., at the Cain Center, Room B, located at 915 South Palestine Street, Athens, Texas. The *Public Comment Period* for the proposed remedial action begins November 16, 2001, and ends December 18, 2001, at the close of the public meeting. All comments submitted prior to the public meeting must be received by 5:00 p.m. December 18, 2001 and should be sent in writing to:

Dean Perkins, Project Manager
Superfund Cleanup Section (MC 143)
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, Texas 78711-3087

The TNRCC will respond to comments received during the public comment period in the *Responsiveness Summary*. The Responsiveness Summary will be made available to the public at their request and in the site files.

5 **GLOSSARY**

Baseline Risk Evaluation (BRE) — an assessment of the risks to human health and the environment posed by a contaminated site. This assessment assumes the site has not been cleaned up and there are no controls, such as fences or deed restrictions, at the site.

Presumptive Remedy Document (PRD) — a report which describes and assesses the potential cleanup strategies for a site.

Hazard Ranking System (HRS) — a preliminary evaluation (ranking) which qualifies a site for proposal to the State Superfund Registry. A score of 5 or above allows a site to be proposed as a state Superfund site.

Proposed Remedial Action Document (PRAD) — a document which describes a state Superfund site and the TNRCC's planned cleanup.

Public Comment Period — a period of time in which the public is invited to comment on the proposed remedial action.

Public Meeting — a meeting announced to the public in which the TNRCC is required by the Texas Solid Waste Disposal Act (TSWDA) to solicit public comment on the proposed remedial action for a site.

Remedial Action — a cleanup designed to be a final remedy of a contamination problem at a site.

Remedial Investigation (RI) — an in-depth study designed to gather the data necessary to determine the nature and extent of contamination at a Superfund site and establish criteria for cleaning up the site.

Responsiveness Summary — a document in which the TNRCC summarizes its response to all comments received during the public comment period, whether verbal or oral.

30 Texas Administrative Code (TAC) — the specific title of the state regulations which addresses environmental quality.

Texas Natural Resource Conservation Commission (TNRCC) — the state agency whose authorities include protection of the environment, disposal of wastes and management of natural resources.

Texas Solid Waste Disposal Act (TSWDA) — the act of the state legislature that includes authorization for the TNRCC to establish a state Superfund program. The TSWDA is codified at Chapter 361 of the Texas Health and Safety Code.