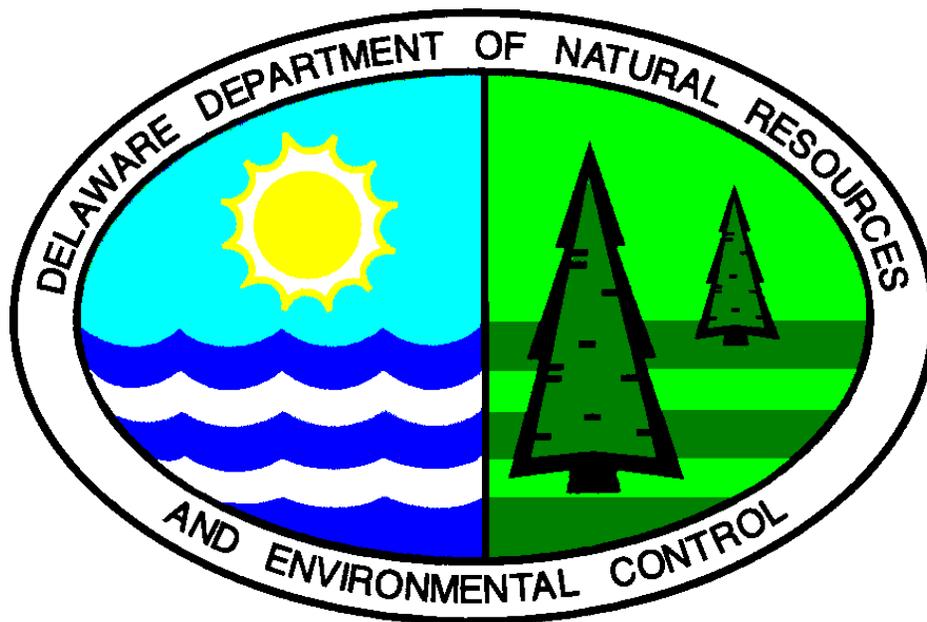


FINAL PLAN OF REMEDIAL ACTION

Moore Brothers Site
New Castle, DE



November 1998

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
715 Grantham Lane
New Castle, Delaware 19720

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Final Plan of Remedial Action Moore Brothers Site

I. INTRODUCTION

The Moore Brother property (the Site) is located at the west corner of the intersection of Airport Road (Delaware State Route 37) and Churchmans Road (Delaware State Route 58), approximately 2.25 miles west of the City of New Castle, Delaware.

The property consists of approximately 33.2 acres, of which, two acres had been developed for the Moore Brothers electrical contracting business. The developed portion of the site contains one single-story building. The two acres is covered by unpaved gravel and was used for parking and storage. The property is to be purchased by Wawa, Inc. and developed into a convenience store and gasoline station.

Due to the finding of polychlorinated biphenyl (PCB) contaminated soils at the site, the property owners decided to enter into the DNREC Voluntary Cleanup Program (VCP). Through a VCP agreement, the owners agreed to further characterize the potential risks posed to the public health and environment. The owners contracted Environmental Alliance, Inc. to conduct the required tasks.

The purposes of the Facility Evaluation (FE) were to: 1) understand the nature and extent of any soil and/or groundwater contamination at the site, 2) evaluate risks to the public and environment associated with identified contamination, and 3) perform a feasibility study that would identify and recommend a remedial action, if required by DNREC. The owners and potential purchaser of the property desired to obtain a Certificate of Completion of Remedy from DNREC upon completion of all required tasks.

This document is the Department's Proposed Plan of Remedial Action for the site. It is based on the results of the previous investigations performed at the site. This Proposed Plan is issued under the provisions of the Delaware Hazardous Substance Cleanup Act ("HSCA") and the Regulations Governing Hazardous Substance Cleanup ("the Regulations"). It presents the Department's assessment of the potential health and environmental risk posed by the site.

Section II presents a summary of the site description, site history and previous investigations of the site. Section III provides a description of the remedial investigation results. Section IV presents a discussion of the remedial action objectives. Section V presents an analysis of remedial alternatives, including identification of and rationale for selection of alternatives and description of alternatives. Section VI discusses public participation requirements.

The Department provided public notice and opportunity to comment on the Proposed Plan in accordance with Section 12 of the Regulations. At the conclusion of the comment period, the Department, after review and consideration of the comments received, shall issue a Final Plan of Remedial Action that shall designate the remedial action. The Proposed Plan, the comments received from the public, responses to the comments and the Final Plan constitutes the "Remedial Decision Record".

II. SITE DESCRIPTION AND HISTORY

Site Setting

The site primarily consists of undeveloped land extending from Airport Road to the Christina River, which is the northwest boundary of the site. The southeast and northeast boundaries of the site are Airport Road and Churchmans Road, respectively. The site is bounded on the southwest by the State of Delaware Division of Motor Vehicles property.

The area surrounding the property is primarily commercial with limited residential development. The New Castle County Airport and associated lands are located at the west corner of the intersection of Airport Road and Churchmans Road.

Site and Project History

Three site assessments and investigations are known to have been conducted on the property; a Phase I Environmental Audit, a Phase II Environmental Audit and, the Facility Evaluation conducted under the VCP Agreement.

The findings of the Phase I Environmental Audit were reported in May, 1997 and listed the environmental concerns to include above ground storage tanks, underground storage tanks, drums of waste oil, salvage transformers and scrap metal. Prior to the Phase II Environmental Audit, the petroleum storage tanks were removed and a closure assessment was performed in accordance with DNREC Underground Storage Tank Regulations.

The Phase II Environmental Audit conducted in January 1998 included the following actions: a geophysical survey and shallow borings; shallow soil sampling; installation of monitoring wells; and groundwater sampling. The geophysical survey indicated several areas requiring further investigation via shallow borings. These anomalies were found to be scrap metal and debris. Two soil samples were found to contain PCBs. No heavy metals were found over background and the petroleum related compounds (polynuclear aromatic hydrocarbons (PAHs)) were related to an underground storage tank and was addressed by the DNREC Underground Storage Tank Branch.

The monitoring well installation and subsequent groundwater sampling indicated that petroleum contamination was present in the groundwater. The DNREC Underground Storage Tank Branch issued a No Further Action letter to the owners for the petroleum contamination.

Based on this information, the owners entered into a VCP agreement with DNREC and performed the Facility Evaluation (FE). The objectives of the FE were to delineate the PCB contamination, determine the potential risk to human health and the environment (based on the DNREC Remediation Standards), and if necessary, to perform a feasibility study.

The FE included the collection of nineteen (19) soil and sediment samples and four groundwater samples which were analyzed for PCBs. The work performed complied with the DNREC-approved Work Plan. DNREC adopts this FE as a Remedial Investigation (RI) since it meets the requirements of an RI for this site.

III. INVESTIGATION RESULTS

Two soil samples were found to contain PCBs. However the concentrations did not exceed the DNREC Remediation Standard of 1 mg/kg. The two soil samples containing PCBs were restricted to the developed area of the site. No sediment samples contained PCBs. No groundwater samples contained detectable levels of PCBs.

Based on the information obtained from the previous environmental assessments and the FE performed at the Moore Brothers site, no potential risk to the public, future workers, or the environment were attributable to the PCB concentration found at the site.

IV. REMEDIAL ACTION OBJECTIVES

According to HSCA regulation 8.4 (1) remedial action objectives must be established for all Plans of Remedial Action. The remedial action were evaluated utilizing the Qualitative and Quantitative Objectives and the following considerations:

- The site will be a convenience store and gasoline station
- The risk to the future workers, and;
- The risk to the environment.

Based on the qualitative objectives, the quantitative are:

1. Prevent human contact with the soils contaminated with PCB compounds over 1 mg/kg.
2. Prevent migration and contact of soil that is over 40 mg/kg PCBs, the DNREC-SIRB soil ecological remediation standard.

V. PROPOSED REMEDIAL ACTION PLAN

Three potential remedial actions were evaluated for their ability to accomplish the Remedial Action Objectives. These were:

1. No Further Action.
2. Removal and Disposal of All Affected Material.
3. On-site Remedial Action.

All three alternatives meet DNREC requirements for an appropriate remedy for this site. However, the qualitative objectives are not exceeded at the site.

However, due to the apparent lack of significant risk to human health and the environment, Alternative 1 was selected.

VI. PUBLIC PARTICIPATION

The Department actively solicited public comments or suggestions on the Proposed Plan and welcomed opportunities to answer questions.

The comment period began Tuesday October 20, 1998 and ended November 9, 1998. No comments were received.

VII. DECLARATION

This Final Plan of Remedial Action for the Moore Brothers site is protective of human health, welfare and the environment and is consistent with the requirements of the Delaware Hazardous Substance Cleanup Act.

Nicholas A. Di Pasquale
Director

Date

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