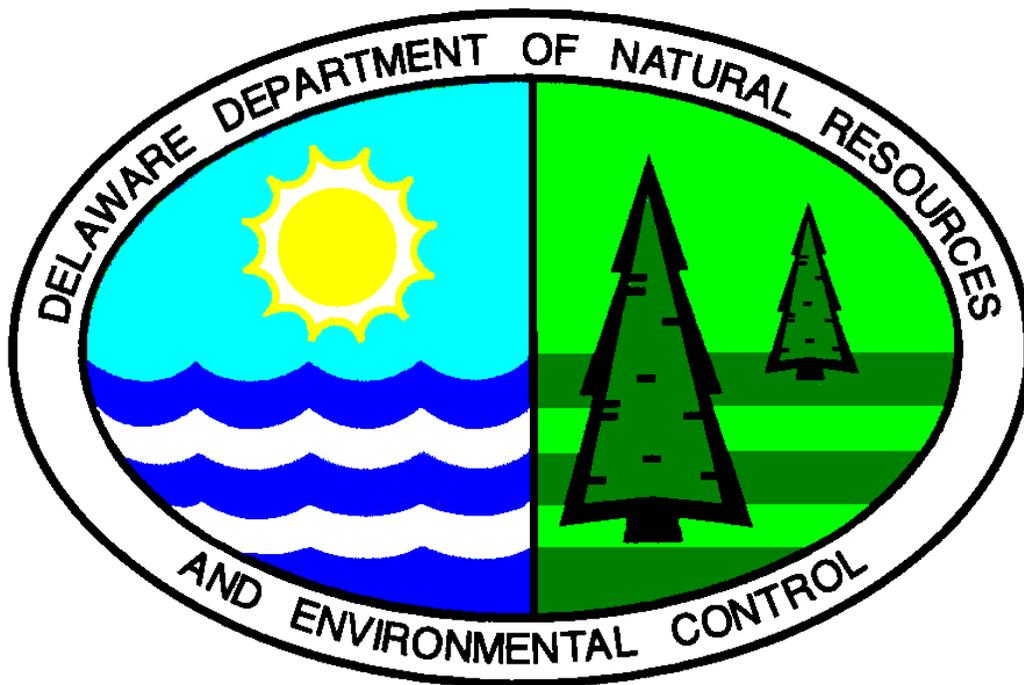


# **FINAL PLAN OF REMEDIAL ACTION**

**DEL CHAPEL PLACE (OU-1)**

**NEWARK, DELAWARE**



**MAY, 1999**

**DE-1121**

**Prepared by:**

**The Delaware Department of Natural Resources and Environmental Control**

**Division of Air and Waste Management**

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## **1 INTRODUCTION**

The Del Chapel Place property is located on the west side of South Chapel Street, south of Delaware Avenue in Newark, Delaware (the “Property” or the “Site”). The Property is a partially paved, vacant lot (approximately 2.4 acres) that was used as a parking area for the industrial facility formerly occupied by the Budd Company and previously Continental Fiber.

The Site, referred to in previous documents as “the vacant lot” and “OU-1”, is the smallest of three tax parcels comprising the entire industrial facility. Historical activities associated with the industrial facility occurred on the two tax parcels now referred to as Del Chapel Place OU-2 and OU-3. The parcel (OU-1), previously owned by Del Chapel Associates, was sold to Continental Court, LLC on April 6, 1998.

On April 26, 1998, Continental Court, LLC entered into a Voluntary Cleanup Program (VCP) Agreement with the Department of Natural Resources and Environmental Control (the “Department” or “DNREC”) Site Investigation and Restoration Branch (“SIRB”). The intent of this Agreement was to allow the owners to conduct a Remedial Investigation and determine whether a cleanup at the Site was necessary.

Continental Court, LLC had proposed “the vacant lot” property as a building site for a new residential apartment structure. The purpose of the Remedial Investigation (RI) was to evaluate the nature and extent of contamination at the Site, evaluate risks to the public and to the environment associated with identified contamination, and to develop remedial alternatives for the Site.

This document is the Department’s Final Plan of Remedial Action for the Property issued under the provision of the Delaware Hazardous Substance Cleanup Act (HSCA) and the Regulations Governing Hazardous Substance Cleanup (Regulations). It follows the Proposed Plan of Remedial Action, which was presented to the public on April 11, 1999. The Proposed Plan summarized the Department’s assessment of the risk to public health and the environment posed by the Site and a comparison of the remedial alternatives. It also included information on the background and history of the property, the results of the previous investigations, and the remedial action objectives.

The Department provided public notice and a 20-day public comment period on the Proposed Plan in accordance with Section 12 of the Regulations. No comments were received during this period. The Department therefore issues this Final Plan of Remedial Action designating the selected remedial action.

## **2 SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS**

The Site is located between Haines Street and South Chapel Street, south of Delaware Avenue in Newark, Delaware. Land use north, west, and south of the Site is mostly residential with mixed commercial properties. Land use directly east is currently zoned industrial. The Site area is currently fenced with open access from South Chapel Street. Local residents and University of Delaware students use portions of the Property occasionally for parking.

The DNREC-SIRB performed a Brownfield Preliminary Assessment II (BPA II) of the Site (OU-1) and the adjacent industrial facility (OU-2 and OU-3) in 1997.

The purpose of the BPA II was to assess the potential threat to human health and the environment posed by site conditions and to determine if further remedial action was warranted. Part of the scope of work included a comprehensive target survey and sampling of the environmental media. The BPA II Report for Del Chapel Place (DE-163) describes and evaluates the results of the sampling conducted on each of the three tax parcels comprising the entire facility. The media sampled includes groundwater, shallow and deep soils, surface water, and stream sediments.

The vacant lot (OU-1) portion of the facility was sampled for soil and groundwater contamination. One groundwater monitoring well (MW-1) was installed at the southeast corner of the parcel and four test pit locations were utilized for soil samples.

## **3 INVESTIGATION RESULTS**

Collectively, information provided by the DNREC-SIRB BPA II Report and the subsequent RI Report titled "Subsurface Exploration Report" was evaluated for assessment of the Site remedial action objectives. Results of the comprehensive environmental media sampling presented in the BPA II Report indicated only one sample (TP-4S) exceeded the DNREC Uniform Risk-Based Standards (URS) for unrestricted land use. The subsequent evaluation of the extent of petroleum contamination at TP-4S, based on 24 soil borings and five test pits, revealed no detectable levels at the selected locations. As a follow-up, the DNREC-SIRB recommended additional test pit excavations to locate the petroleum contamination at TP-4S. The test pits were screened visually and with a photoionization detector (PID). The PID indicated the presence of petroleum in two test pits within a two-inch layer of stained soil, six inches below the surface. Test pits delineated the area of contamination to less than ten square feet. Four samples were collected for verification of the field screening. The results confirm that petroleum contamination is localized and not continuous within the test pit soil profile.

Interim Action removal was conducted with the DNREC-SIRB's approval. The delineated area of contamination was removed and properly disposed.

#### **4 REMEDIAL ACTION OBJECTIVES**

According to HSCA Regulation 8.4(1), remedial action objectives must be established for all Plans of Remedial Action. Remedial action is evaluated based on the following considerations:

- Current and proposed land use,
- Applicable local, State, and Federal laws and regulations, and
- Facility-specific risk assessment.

The remedial action objectives are developed to assess site-specific areas of concern that have been identified. For the Del Chapel Place OU-1 Site, the significant findings are:

- The Site has recently been an undeveloped, partially fenced vacant lot. Until construction activity began, most of the Site surface was covered with weathered asphalt. The proposed future use of the Site is a residential apartment building.
- Surrounding land uses are residential, commercial, and industrial.
- Some soil samples at the Site contained notable concentrations of Total Petroleum Hydrocarbons (TPH).
- The primary contaminant migration pathway is inadvertent ingestion of soil.
- Planned future Site use is residential - a residential apartment complex with a parking lot.

Based upon these findings, the qualitative and quantitative remedial action objectives for the Site were established. Subsequently an Interim Action Removal of contaminated soil was conducted with DNREC-SIRB approval and the remedial action objectives established below were accomplished.

The qualitative remedial action objectives are to mitigate:

- Potential risks due to direct human contact (dermal) with soils containing elevated concentrations of petroleum hydrocarbons,
- Potential risk for inadvertent ingestion of Site soils containing elevated concentrations of petroleum hydrocarbons, and
- Risks to the environment.

The quantitative remedial action objectives are to mitigate risks due to soils containing concentrations of petroleum hydrocarbons exceeding the DNREC Uniform Risk-Based Standards, Non-Critical Water Resource Area, Unrestricted Use as referenced in the Remediation Standards Guidance under the Delaware Hazardous Substances Cleanup Act. Standards for petroleum hydrocarbons with gasoline range and diesel range organics in surface soils are:

C5 through C8 aliphatic hydrocarbons	100 mg/Kg
C9 through C12 aliphatic hydrocarbons	1,000 mg/Kg
C9 through C18 aliphatic hydrocarbons	1,000 mg/Kg
C19 through C36 aliphatic hydrocarbons	2,500 mg/Kg
C9 through C10 aromatic hydrocarbons	100 mg/Kg
C11 through C22 aromatic hydrocarbons	800 mg/Kg

The small volume of petroleum stained soil exceeds the DNREC URS with an approximate concentration of 5,000 ppm Total Petroleum Hydrocarbons (TPH). The volume of soil is estimated to be less than ten square feet in area by two inches thick.

Removal of the petroleum stained soil was conducted to eliminate any potential risks described in the established qualitative remedial action objectives. Consequently, the current Site conditions meet the quantitative remedial action objectives as referenced in the URS for unrestricted land use.

## **5 PROPOSED REMEDIAL ACTION PLAN AND PUBLIC PARTICIPATION**

Based on the information and results of the investigation, and the Interim Action removal performed at the Site (Del Chapel Place OU-1) located on South Chapel Street, Newark, Delaware, the DNREC-SIRB recommends no further action be required.

The Department provided public notice of its Proposed Plan of Remedial Action for the Site in the News Journal on April 11, 1999. During the comment period, the Department received no comments on the Proposed Plan.

## **6 Final Plan**

The Department adopts the Proposed Plan as the Final Plan of Remedial Action. The DNREC-SIRB requires no further action at the Site.

## **7 DECLARATION**

This Final Plan of Remedial Action for the Del Chapel Place (OU-1) Site is protective of human health, welfare, and the environment and is consistent with the requirements of the Delaware Hazardous Substance Cleanup Act.

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