STATE OF DELAWARE

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
SITE INVESTIGATION AND RESTORATION BRANCH

AMENDED PROPOSED PLAN OF REMEDIAL ACTION

August 2006

Meco Drive Site Collection Trench (OU-1)
Wilmington, Delaware — DNREC Project No. DE-1103

This amended Proposed Plan of Remedial Action (Proposed Plan) presents the Department of Natural Resources and Environmental Control-Site Investigation and Restoration Branch (DNREC-SIRB) proposed cleanup alternative for the remediation at the Meco Drive project (Site) (also known as the Wayman Fire Protection project).

The purpose of the amended Proposed Plan is to modify the conditions of the original Final Plan of Remedial Action (Final Plan) for the Site issued in January 2005. The January 2005 Final Plan of Remedial Action is herein modified to reflect an alternate method of treated water discharge as well as to divide the Site into two separate Operable Units (OUs). The State of Delaware Surface Water Discharge Regulations made the alternate method of water treatment necessary. In light of the treated water, discharge Regulations, the January 2005 Final Plan has become cost prohibitive. Separation of the Site into two (2) OUs allows for expedited implementation of a remedy that achieves one (1) of the Remedial Action Objectives from the January 2005 Final Plan. This separation will provide an avenue by which DNREC-SIRB can complete further delineation of Site contaminants.

In addition, as required by Section 12 of the Delaware Regulations Governing Hazardous Substance Cleanup (HSCA Regulations), DNREC will provide notice to the public and an opportunity for the public to comment on the Amended Proposed Plan. At the conclusion of the comment period, DNREC will review and consider all of the comments received and then will issue an Amended Final Plan of Remedial Action (Final Plan). The proposed amendments to this plan reflect constraints placed on the project by State of Delaware regulations and the prohibitive costs associated with the implementation of the January 2005 Final Plan. The Amended Final Plan will designate the selected remedy for the Site. All investigations of the Site, the Proposed

Plan, the amended Proposed Plan, comments received from the public, DNREC-SIRB's responses to the comments, and the Final Plan will constitute the Remedial Decision Record.

This amended Proposed Plan summarizes the findings of the 2000 Remedial Investigation (RI) and the 2002 Feasibility Study (FS) with a 2004 FS Addendum, and the administrative record file upon which this Proposed Plan is based. The public can obtain or view copies of Site-related documents at the locations listed at the end of this document.
DNREC's Proposed Plan is preliminary and a Final decision will not be made until all of the comments are considered. The Final Plan could differ from the Proposed Plan based on public comments.

INTRODUCTION

The Meco Drive project consists of seven (7) adjacent properties along Meco Drive, in Wilmington, Delaware. Site properties include #401, #403, #404, #406, #407, #408, and #410 Meco Drive, but exclude #402, #405, and #409 Meco Drive (Figure 1). DNREC was tasked to conduct a Sampling Site Inspection (SSI) and a Feasibility Study (FS) of the property to investigate the potential risks posed to public health, welfare and the environment at the Site under the provisions of the Delaware Hazardous Substance Cleanup Act (HSCA), 7 Del. C. Chapter 91. A DNREC contractor, Tetra Tech, Inc., performed the investigation and the FS on the Site.

SITE DESCRIPTION AND HISTORY

As mentioned , the Site consists of seven (7) separate parcels totaling approximately seven (7) acres in New Castle County, Delaware southwest of the City of Wilmington (Figure 2). Meco Drive lies north of Interstate 95 and southeast of Maryland Avenue, immediately west of the Little Mill Creek. The Site is the source of an oily free product in the sub-surface that discharges nearly continuously into a drainage culvert and intermittently into Little Mill Creek.

From 1930 to 1958, Elizabeth Tavani owned the entire Site area. From 1955 to about 1971, various construction companies owned the parcels, including Pullela and Baldini (1955-1971), Ashley Construction (1956-1971), Maykut Construction (1968-1971), and DeSeta/Ates Industries (1971 – 1979). DNREC's contractor, Tetra Tech, discovered that the area was used as a dump in the 1960's. Tetra Tech performed a review of aerial photography that showed various dirt access roads and bare and disturbed soil areas in the 1954 and 1961 photographs. No evidence has been uncovered to link the presence of the subsurface oil with any particular past property owner or business operator.

In December of 1986, a complaint initiated the identification of a seep of oily materials near the vicinity of a drainage pipe on the eastern side of Meco Drive, which was discharging into Little Mill Creek. DNREC-SIRB characterized the seep as intermittent, and DNREC was unable to determine the source of the oil product. In March of 1988, DNREC performed a Preliminary Assessment (PA) of the Site, and recommended that further inspection be performed. In 1990, 1991, and 1992, the DNREC Division of Air and Waste Management's Emergency Response Team, citing the appearance of oil slicks or oily material on the Little Mill Creek in the Site vicinity, completed three (3) Incident Reports. In 1991, DNREC began placing sorbent "boom"

materials into the drainage ditch to absorb the oily discharge, and this interim action remains ongoing.

In December of 1998, DNREC tasked their contractor, Tetra Tech, to perform a sampling site investigation (SSI) to attempt to identify the source of the oily free product, to perform the ongoing maintenance of the sorbent boom interim remedy, and to determine whether the Site posed any risks to human health and the environment.

INVESTIGATION RESULTS

Tetra-Tech performed the SSI in the summer and fall of 1999 in order to delineate the source of the LNAPL (light non-aqueous phase liquid). It included the performance of 41 Direct Push test borings, the associated sampling of surface and subsurface soils and the subsequent completion of 36 of the borings as 1"-diameter groundwater monitoring wells. The results of the SSI are summarized below.

Soils

The soil boring program demonstrated the occurrence of two subsurface units in the Site area; (1) an approximately 10-foot thick layer of variable fill materials including granular and fine-grained soils intermingled with asphalt, concrete, angular rock (crusher run), brick fragments, paper products, wood scrap and highly variable amounts of an oily LNAPL product, and (2) underlying the fill was a layer of dark gray organic silt interpreted as geologically recent (Holocene) tidal marsh deposits.

The areal extent of the oily material was delineated; it was encountered in laterally discontinuous locations in 19 of the 41 soil borings. The source of the LNAPL product was determined to likely have been illegal dumping of waste petroleum products into the construction debris fill either before or during the fill placement. No discrete source of petroleum products was identified in the vicinity either by historic records or by Site contaminant distribution.

Laboratory analysis of the soil samples showed high concentrations of the oily product as indicated by analysis of gasoline-range organics (GRO) and diesel-range organics (DRO). Other organic compounds were present only at low levels in a few of the samples, including polychlorinated bi-phenyl (PCB), carcinogenic polynuclear aromatic hydrocarbons (PAHs), and gasoline constituents benzene, ethylbenzene, toluene, and xylenes. The PCBs delineated are in a localized area at a depth of greater than 2 feet below land surface absent of free product-petroleum. The metals analysis did not reveal elevated levels of any of the Target Analyte List metals in the soil samples.

The SIRB chemist performed a "fingerprint" analysis to attempt to identify the chemical constituents of the LNAPL oily product. The product did not match with any of the known petroleum hydrocarbon standards (it was not typical gasoline, heating oil, or diesel fuel, etc.), but the chemist did conclude that the product was aged at least 20 to 30 years and consisted of two separate phases, a lighter mineral spirits or Stoddard Solvent