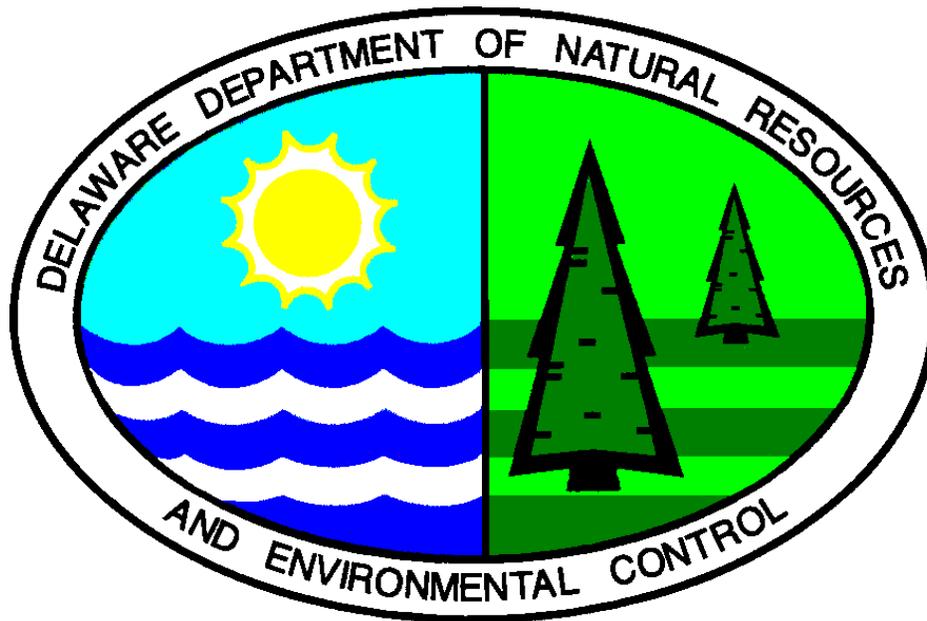


FINAL PLAN OF REMEDIAL ACTION

Kirk Building Site
Wilmington, DE

DE 1132



June 1999

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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I. INTRODUCTION

The Kirk Building Site (“Site”) is located at 102-106 Lower Elm Street and 211 Liberty Street in Wilmington, Delaware. In order to determine the potential for environmental liability prior to the purchase of the Site, the Reybold Group entered into the Department of Natural Resources and Environmental Control-Site Investigation and Restoration Branch’s (DNREC-SIRB’s) Voluntary Cleanup Program (VCP) under the provisions of the Delaware Hazardous Substance Cleanup Act, 7 Del. C. Chapter 91 (HSCA). Through a VCP agreement, Reybold agreed to investigate the potential risks posed to the public health, welfare and the environment. Reybold contracted WIK Associates, Inc. to perform a Facility Evaluation (FE) of the Site.

The purposes of the investigation were to: 1) understand the nature and extent of any soil and/or groundwater contamination at the Site, 2) evaluate risks to public health, welfare and the environment associated with identified contamination, and 3) perform a feasibility study that would identify and recommend a remedial action, if required by DNREC-SIRB.

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

In accordance with the Regulations, DNREC-SIRB provided notice to the public and an opportunity for the public to comment on the Proposed Plan in accordance with Section 12 of the Regulations. At the conclusion of the public comment period, DNREC-SIRB reviews and considers all of the comments received and then issues a Final Plan of Remedial Action. The Final Plan of Remedial Action designates the selected remedy for the Site. The Proposed Plan, the comments received from the public, DNREC-SIRB’s responses to those comments, and the Final Plan of Remedial Action will constitute the Remedial Decision Record.

Section II presents a summary of the Site description, Site history and previous investigations of the Site. Section III provides a description of the facility evaluation results. Section IV presents a discussion of the remedial action objectives. Section V presents the Final Plan of Remedial Action. Section VI discusses public participation requirements.

II. SITE DESCRIPTION AND HISTORY

Site Setting

The Site is located on the corner of Lower Elm Street and Liberty Street in Wilmington, Delaware. (See Figure 1 & 2) The Site contains a 28,000 square foot four story building. It is important to note that the building covers the majority of the land surface of the Site.

The site is generally square in shape and covers less than one acre. The site is bordered by Lower Elm Street to the east, Liberty Street to the south, a vacant lot to the west, and an alley known as Nancy Street to the north.

Site and Project History

WIK Associates, Inc. through a review of aerial photographs, United States Geologic Survey topographic maps, historical fire insurance maps and city directories investigated the historical use of the Site. Based on the information supplied by WIK, it appears that the Kirk Building Property has been used for a combination of commercial and industrial uses since at least 1927.

The Site is adjacent to the Maryland Avenue site (DE-1099). Both the Maryland Avenue and the Kirk Building Sites were at one time owned/operated by Liberty Morocco Co., which was a leather tanning operation.

In order to obtain a Certificate of Completion of Remedy, the prospective purchaser entered into a VCP agreement with DNREC-SIRB to perform a Facility Evaluation (FE). The objectives of the FE were to evaluate the soil and groundwater quality at the Site.

III. INVESTIGATION RESULTS

Six surface and six subsurface soil samples were collected as part of the Kirk Building Site FE. Two groundwater samples were also collected as part of the FE. The samples were collected and analyzed in accordance with the DNREC-SIRB approved work plan.

The samples were analyzed for contaminants listed on the Target Analyte List and the Target Compound List (TAL/TCL). The analytical results were then compared to the DNREC-SIRB Uniform Risk Based Remediation Standards (URS) for the restricted use scenario. One sample, HA04-S001, with an arsenic concentration of 2,130 mg/Kg exceeds the URS for arsenic of 61 mg/Kg. Two samples, HA02-S001 and HA04-S001, revealed concentrations in excess of the benzo(a)pyrene standard of 0.8 mg/Kg with values of 1.1 mg/Kg and 2.9 mg/Kg, respectively.

The results of the subsurface soil samples revealed one sample, HA04-002, with an arsenic concentration of 1,560 mg/Kg, which is in excess of the URS for arsenic of 61 mg/Kg. Two samples, HA02-S002 and HA04-S002, revealed concentrations in excess of the benzo(a)pyrene standard of 0.8 mg/Kg with values of 1.9 mg/Kg and 5.6 mg/Kg, respectively. HA04-S002 also contained 0.94 mg/Kg of dibenz(a,h)anthracene which is slightly above the URS of 0.8 mg/Kg.

These samples were all located within the building beneath the concrete floor slab.

IV. REMEDIAL ACTION OBJECTIVES

DNREC considers the data and information generated in the previous investigations of the Site to meet the criteria of a Remedial Investigation (RI), and hereby adopts the previous investigations as the RI. According to Section 8.4 (1) of the Regulations, site-specific remedial action objectives (RAO) must be established for all Plans of Remedial Action.

Qualitative objectives describe, in general terms, what the ultimate result of the remedial action at the facility should be. The majority of the Site is currently covered by a four-story building and is located in an urban setting. The primary receptors of contamination are humans. Therefore, the qualitative RAO for this Site is to prevent human contact such as dermal contact, inhalation, or ingestion with the soil.

Quantitative objectives define specific levels of remedial action to achieve protection of human health and the environment. Based on the qualitative objectives, the quantitative objectives will be to ensure that future site users such as site workers, construction workers, visitors, and trespassers do not come in contact with soil containing contamination above the DNREC-SIRB's URS.

The URS for arsenic in a non-critical water resource area under a restricted use scenario is 61 mg/Kg.

The URS for benzo(a)pyrene in a non-critical water resource area under a restricted use scenario is 0.8 mg/Kg.

The URS for dibenz(a,h)anthracene in a non-critical water resource area under a restricted use scenario is 0.8 mg/Kg.

V. FINAL PLAN OF REMEDIAL ACTION

As stated in Section III of this Final Plan of Remedial Action, the contamination at the Site appears to be confined to the soil located beneath the concrete slab of the building. Therefore, any threat of the public being exposed to the contaminants is eliminated. In order to meet the RAOs, DNREC-SIRB requires that an institutional control (i.e. deed restriction) be employed at the Site.

The deed notification will restrict the use of the site to commercial and industrial uses only. The deed notification will also require that the floor slab remain in place and undisturbed.

VI. PUBLIC PARTICIPATION

The Department actively solicited public comments and suggestions on the Proposed Plan of Remedial Action and welcomed opportunities to answer questions. The comment period began on June 5, 1999, and concluded at the close of business (4:30 p.m.) on June 25, 1999. No comments from the public were received by DNREC-SIRB.

VII. DECLARATION

This Final Plan of Remedial Action for the Kirk Building Site (DE-1132) is protective of human health, welfare, and the environment, and is consistent with the requirements of the Delaware Hazardous Substance Cleanup Act.

William H. Hill, Acting Director Date
Division of Air and Waste Management

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Appendix A

Figures 1& 2 from Facility Evaluation Report

Prepared by WIK Associates September 1998.

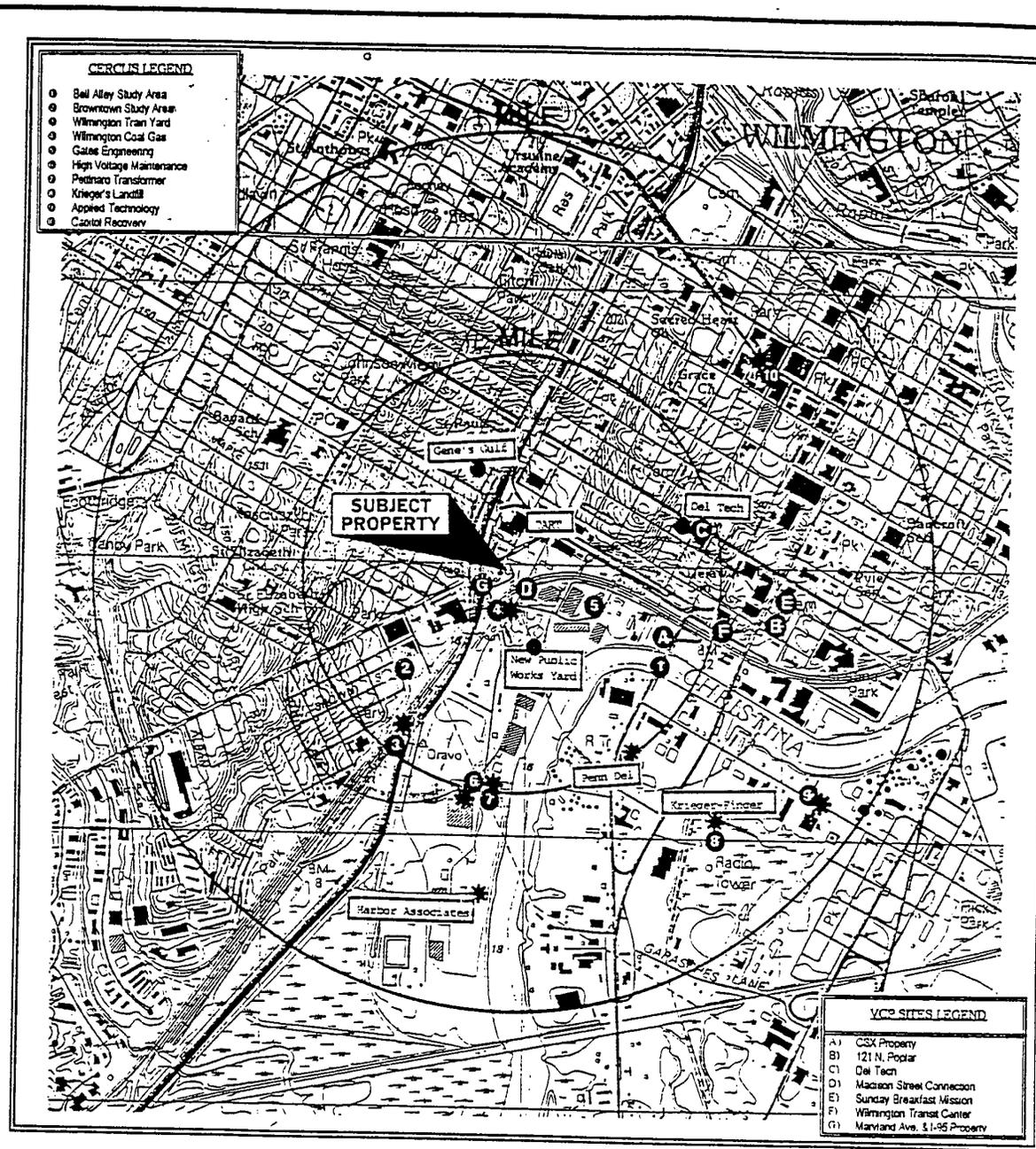
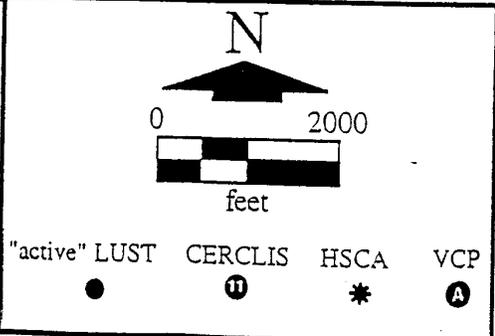


FIGURE 1
Location of Federal and State Database Sites
Wilmington North and Wilmington South Quadrangles:
7.5 Minute Series

102-106 Lower Elm St./211 Liberty Street
 Wilmington, Delaware
 File: 1097.16.21



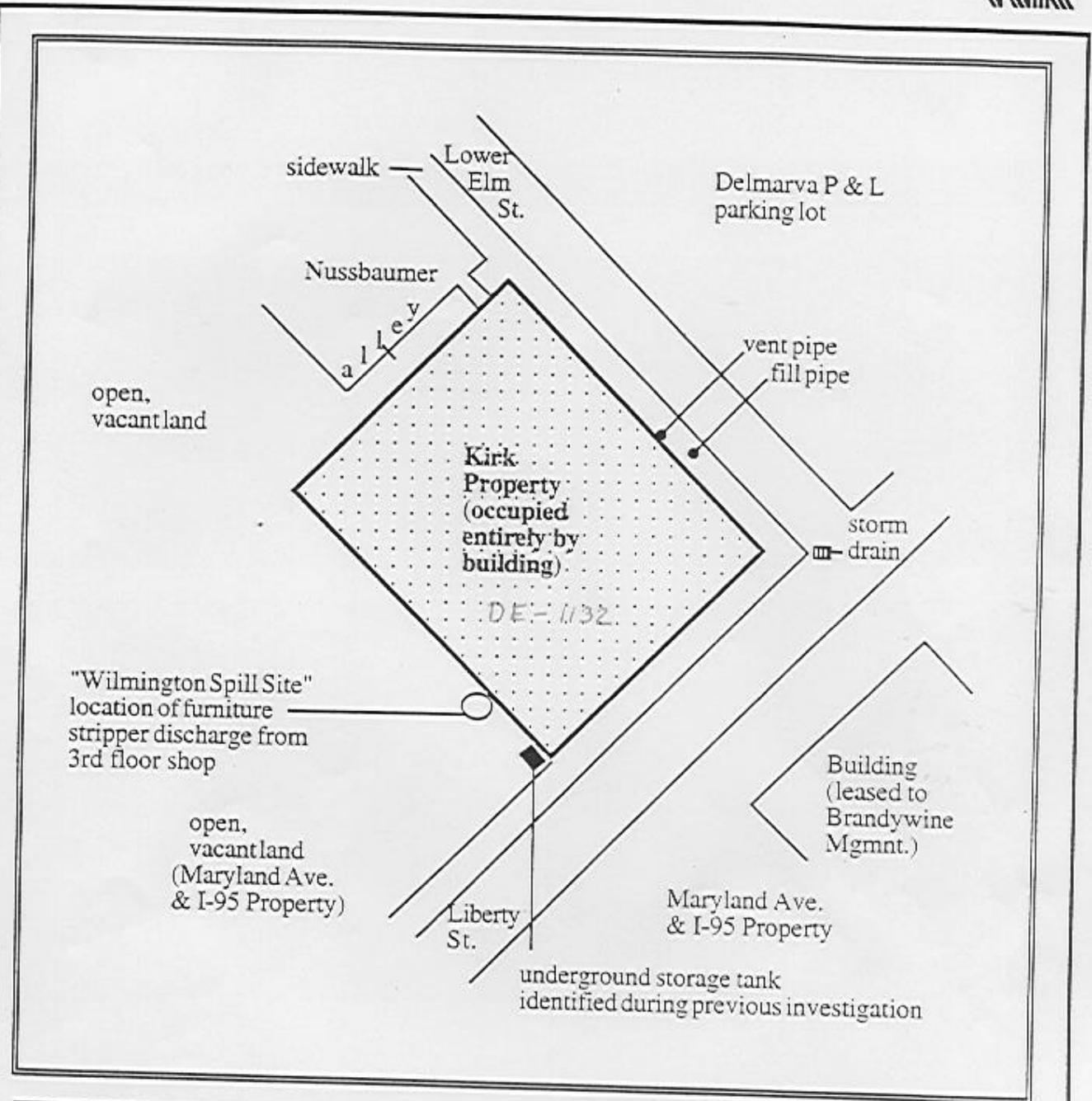


Figure 2
Layout of Building, Associated Grounds and Surrounding Land Uses

102-106 Lower Elm St./211 Liberty Street
Wilmington, Delaware
File: 1097.16.21



Note: Figure Not to Scale