NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
PRAP/ROD ROUTING SLIP

TO: Sal Ervolina, Assistant Division Director

FROM: The attached is submitted for your approval by:

NAME	INITIAL	DATE
Project Manager: Jones	JJ	11/9/05
Section Chief/RHWRE: Guy Bobersky	GB	11/9/05
Bureau Director: Chittibabu Vasudevan	CV	11/9/05

DATE: 11/8/2005

RE: **Site Name** New Cassel Industrial Area **Site Code** 130043
City New Cassel **County** Nassau

☐ **PRAP**

- ☐ Draft PRAP
- ☐ Clean copy of the PRAP
- ☐ Redline/Strikeout version of the PRAP
- ☐ Copies of edits to PRAP (Sal's/Dale's)
- ☐ Site Briefing Report
- ☐ NYSDOH concurrence letter
- ☐ USEPA concurrence letter

ESD

~~PRAP~~ Release Approvals

Ass't Div Director: _____
Sal Ervolina

Division Director: _____
Dale A. Desnoyers

☑ ~~**ROD**~~ ESD $8752

- ☐ Draft ROD
- ☒ Signature-ready copy of the ~~ROD~~ ESD
- ☐ Redline/Strikeout version of the ROD
- ☐ Copies of edits to ROD (Sal's/Dale's)
- ☒ Site Briefing Report
- ☒ NYSDOH concurrence letter

ESD

~~ROD~~ Signoff

Ass't Div Director: _____
Sal Ervolina

☐ **BRIEFING**
Date: 11/4/05 **Time:** 10:00 am **Room:** 1117

c: Dale Desnoyers
Other reviewers who are invited to Briefing

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Briefing Report

Site Code	130043	**Site Name**	New Cassel Industrial Area		
Classification	R	**Address**	Between Old Country Road and Railroad Tracks		
Region	1	**City**	New Cassel	**Zip**	11590
Latitude	40:45:24:0	**Town**	North Hempstead	**Project Manager**	Jones
Longitude	73:33:38:0	**County**	Nassau		
Site Type	Structure			**Estimated Size**	170

Site Description

Flat topography: Industrial/commercial area
Nearest Waterbody: Hempstead Bay approximately 6 miles northwest
Nearest Water Supply: Approximately 400 feet south

This is a 170 acre industrial area that has operated since 1950. The site is bounded by the Long Island Railroad tracks on the north, Wantagh State Park on the east, Old County Road on the south, and Grand Boulevard on the west. The site contains many light industrial sites, both currently active and inactive. A variety of residential and commercial properties surround the site. According to a 1986 report by the Nassau County Department of Health, various chlorinated solvents such as tetrachloroethylene (PCE) and trichloroethane (TCA)were found in the groundwater beneath the site at levels between 2 and 9,800 ppb. The contaminated groundwater was found to be heading towards three public supply wells located south (downgradient) of the site. DEC subsequently listed this site as a Class 2. A state-funded investigation to determine the sources of contamination within the industrial area began in 1992 and was completed in early 1995. The results showed the existence of distinct contaminated groundwater plumes emanating from at least eleven different sources. PCE was found as high as 92,000 ppb and TCA was found as high as 79,000 ppb in groundwater. A large number of individual site investigations have been performed for sites within the NCIA (see sites 1-30-043 A-V). Preliminary site investigations were conducted in the NCIA in the years 1995-1997. In September 2000, the Department concluded an RI/FS investigation for the NCIA as a whole. Based on the RI/FS, a ROD specifying extensive groundwater remediation was signed in 2003. As of November 2005, negotiations with PRPs are underway to perform the required downgradient off-site groundwater remediation.

Materials Disposed at Site	**Quantity Disposed**
TETRACHLOROETHYLENE (F001 & F002 WASTE)	UNKNOWN
1,1,1-TRICHLOROETHANE (F001 & F002 WASTE)	UNKNOWN

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for: Groundwater, Surface Water

Assessment of Environmental Problems

Past site operations have contaminated the groundwater beneath the site with chlorinated solvents well in excess of SCGs over large areas of the site. Groundwater is within an EPA-designated sole source aquifer.

Contaminants are migrating towards public water supply wells that are imediately downgradient of the site.

Assessment of Health Problems

There are multiple groundwater contaminant plumes beneath the New Cassel Industrial Area. Activities within the site have contributed to the groundwater contamination. The Bowling Green Public Water Supply Wells are located 300 to 500 yards down-gradient of the industrial area and are contaminated with levels of volatile
organic compounds (VOCs) that exceed New York State drinking water standards.
Remediation of site-related source areas has reduced the level of VOCs in the raw water entering the Bowling Green wells. An air stripper was placed on the wells in 1995 to remove
contaminants before water is distributed to customers. Strategies to further protect the impacted downgradient supply wells are yet to be implemented.

Remedy Description and Cost

Remedy Description for Operable Unit 02

Soil Vapor Intrusion Investigation to be done south of Old Country Road.

Total Cost

Capital Cost

OM&M Cost

Issues / Recommendations

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

November 9, 2005

Mr. Dale Desnoyers, Director
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7011

Re: **Explanation of Significant Differences**
Off-site Groundwater
Site ID **#130043 A-V**
New Cassel Industrial Area
New Cassel, Nassau County

Dear Mr. Desnoyers:

Staff reviewed the November 2005 Explanation of Significant Differences (ESD) for the off-site groundwater contamination associated with the New Cassel Industrial Area sites. Based on that review, I understand this ESD is being issued to ease implementation of the remedy selected in the October 2003 Record of Decision (ROD). The ESD consists of separating the treatment area, which includes the Eastern, Central and Western plumes, into to two treatment areas. The Western plume will stand-alone and the Central and Eastern plumes will be combined. There will be no change in the remedial activities selected in the October 2003 ROD. Based on this information, I believe the existing remedy with this modification will be protective of public health and concur with the changes.

If you should have additional questions concerning this issue, please contact Mr. Richard Fedigan at (518) 402-7870.

Sincerely,

Steven M. Bates, Assistant Director
Bureau of Environmental Exposure Investigation

cc: G. A. Carlson, Ph.D. / A.J. Grey, Ph.D.
Mr. G. Litwin / Mr. R. Fedigan/File
Mr. R. Weitzman - NCDOH
Mr. C. Vasudevan / Mr. G. Bobersky / Mr. J. Jones - DEC Central
Mr. W. Parish - DEC Reg.1

EXPLANATION OF SIGNIFICANT DIFFERENCES
NEW CASSEL INDUSTRIAL AREA SITES
Town of North Hempstead
Nassau County, New York
Off-site Groundwater South of the New Cassel Industrial Area
Operable Unit No. 3

Site Numbers 1-30-043A, 1-30-043B, 1-30-043C, 1-30-043D, 1-30-043E, 1-30-043H, 1-30-043I, 1-30-043K, 1-30-043L, 1-30-043M, 1-30-043P, 1-30-043S, 1-30-043U, & 1-30-043V

INTRODUCTION

This Explanation of Significant Differences (ESD) is issued for the New Cassel Industrial Area Sites (NCIA), Off-site Groundwater primarily South of the New Cassel Industrial Area, Operable Unit No. 3 (OU3). The NCIA is located in the town of North Hempstead, Nassau County, New York. It covers approximately 170 acres of land and is bounded by the Long Island Railroad to the north, Frost Street to the east, Old Country Road to the south, and Grand Boulevard to the southwest.

This ESD is being issued to ease implementation of the remedy for the NCIA Sites, OU3. In November of 2003, the New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) for OU3. The area covered by the ROD included three multi-site plumes designated in the ROD as the Eastern, Central and Western plumes. The Eastern and Central plumes appear to merge at depths of 100 ft below ground surface (bgs) or greater south of Old Country Road. The Western plume appears to be separate within the NCIA. It is possible that all three plumes merge downgradient of the Bowling Green Water Supply wells. The selected remedy was Full Plume Remediation of Upper and Deep Portions of the Aquifer (to 225 ft bgs) with In-Well Vapor Stripping/Localized Vapor Treatment. For the purposes of negotiating Administrative Orders on Consent and Consent Decrees (collectively "Orders") to implement the remedy selected in the ROD for NCIA OU3, the potentially responsible parties (PRPs) are separated into two distinct groups: those located in the areas of origin of the Eastern and Central plumes, and those located in the area of origin of the Western plume. For a list of sites and PRPs contributing to the Eastern, Central and Western plumes, see Section 4 of the ROD. For maps of the Eastern, Central and Western plumes, see Figures 3-11 of the ROD. This ESD delineates the geographic areas of responsibility in implementing the selected remedy for these two groups.

This ESD will be included in the Administrative Record File for the NCIA Sites, OU3, and will function as an Addendum to the Record of Decision. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Mr. Joseph G. Jones
Project Manager
NYSDEC
625 Broadway
11th Floor
Albany, NY 12233-7015
Phone: 518-402-9621
M-F: 8:30 a.m. - 4:45 p.m.

NYSDEC- Region 1
SUNY Campus
Loop Road, Bldg. 40
Stony Brook, NY 11790-2356
Attn: Mr. William Fonda
631-444-0350
1-800-444-0350
M-F: 8:30 a.m. - 4:45 p.m.

New Cassel/Westbury Youth Services Project
817 Prospect Ave.
New Cassel
Phone: 516-333-9224
M-F: 10:30 a.m. - 10:00 p.m.

New Cassel Environmental Justice Project
847 Prospect Ave.
New Cassel
Phone: 516-876-9526
M-F: 10:30 a.m.- 6:00 p.m.

Town of Hempstead
Town Clerk
200 Plandome Road
Manahasset
Phone: 516-627-0590
M-F: 9:00 a.m. - 5:00 p.m.

Westbury Memorial Public Library
Reference Section
445 Jefferson St., Westbury
Phone: 516-333-0176
M-F: 9:00 a.m. - 5:00 p.m.
Sat: 9:30 a.m. - 5:30 p.m.
Sun: 1 - 5 p.m.

SUMMARY OF SITE HISTORY, CONTAMINATION AND SELECTED REMEDY

Site History and Nature and Extent of Contamination

The NCIA was first developed during the early 1950s. Past industrial activities conducted within the NCIA have resulted in extensive volatile organic compound (VOC) contamination of groundwater in the vicinity of the NCIA.

The NCIA was first recognized as an area with widespread groundwater contamination during a county-wide groundwater investigation conducted by the Nassau County Department of Health (NCDH) in 1986.

In 1988, the NYSDEC listed the NCIA as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites (Registry) in New York.

In order to identify the sources of the contamination within the NCIA, and hence the responsible parties, the NYSDEC conducted Preliminary Site Assessments (PSAs) within the NCIA. Field investigations were completed in fall 1994, fall 1995 and fall 1996. The NYSDEC also collected several soil and groundwater samples in December 1998, January 1999 and December 1999. Based on the findings of these PSAs, a total of 17 sites were identified and listed as Class 2 sites in the Registry between May 1995 and September 1999. Of the 17 Class 2 sites, three were investigated and delisted from the Registry, two sites were investigated, remediated and delisted from the Registry and another site was investigated, remediated and reclassified as a Class 4 site. Remedial activities have been conducted at several sites by both the NYSDEC and PRPs. For a more detailed description of these investigations and their results, see Section 3.2.1 of the ROD, the New Cassel

Industrial Area Off-Site Groundwater Remedial Investigation (RI) Report, and the Records of Decision (RODs) for individual sites within the NCIA.

As described in the RI report, since 1996 over 1,850 groundwater samples were collected at the NCIA from over 100 separate monitoring wells, approximately 25 hydropunch locations and over 50 geoprobe locations, to characterize the nature and extent of contamination. The investigation included on-site sampling for individual sites within the NCIA, as well as work performed for the NCIA off-site groundwater investigation. The main categories of contaminants which exceed their SCGs are VOCs. The VOCs of concern are tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA) and trichloroethene (TCE). Also present are smaller quantities of the breakdown products of PCE and TCE, and an assortment of minor constituents all within the VOC category. For more detailed descriptions, please refer to the RI.

Three major groundwater plumes originating within the NCIA were identified. These plumes extended southwards (downgradient) from the NCIA towards the Bowling Green Water Supply wells. For maps delineating the extent of these groundwater plumes at various depths beneath ground surface, see Figures 3-11 of the ROD.

Summary of the Feasibility Study and the Proposed Remedial Action Plan Process

As part of the remedial process, a number of Citizen Participation activities were undertaken to inform and educate the public about the conditions at the NCIA OU3, and the potential remedial alternatives. These included creating a public contact list which included nearby property owners, elected officials, local media and other interested parties. A public meeting was held on June 12, 2003 to receive comment on the Proposed Remedial Action Plan (PRAP). The period during which the public comments on the PRAP were received was originally from May 29, 2003 through June 30, 2003 and was later extended to July 30, 2003. Public information meetings regarding the entire New Cassel Industrial Area were held in May 1995, January 1996, May 1996, October 1996, May 1997, December 1997, May 1998, December 1998, May 1999, September 1999, February 2000, May 2000, January 2001, December 2001 and December 2002. A responsiveness summary was prepared to address the comments received during the public comment period for the PRAP and included in the ROD. Public information meeting updates since the ROD was issued have been held in January 2004 and December 2004.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the NCIA Sites, OU3, and the criteria identified for evaluation of alternatives, the NYSDEC selected full plume remediation of upper and deep portions of the aquifer (to 225 feet below ground surface) with in-well vapor stripping/localized vapor treatment. The elements of the remedy are:

- A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation, and maintenance and

monitoring of the remedial program. Any uncertainties identified during the RI/FS process will be resolved;

- Installation of one 225-ft vapor stripping well with ancillary systems, for the purpose of a pilot study to determine the radius of influence, and the number of additional stripping wells needed;

- Based on the pilot test data, the effectiveness of the in-well vapor stripping system will be evaluated. If, for engineering or economic reasons, in-situ treatment should prove to be less practical, ex-situ extraction and treatment (treatment at the surface, possibly at a centralized location) will be substituted without impairing the overall effectiveness of treatment system;

- Based on the results of the pilot test, design and installation of three additional 225-ft vapor stripping wells, four 200-ft vapor stripping wells, and three 140-ft vapor stripping wells, plus their ancillary systems. Actual number and locations of these wells will be determined by the pilot test results. The wells will be placed approximately as shown in Figure 22, subject to revision due to the results of the pilot test, the final design parameters and access restrictions;

- Operation and maintenance of the treatment system until the remediation goals are achieved or the NYSDEC and NYSDOH determine that further operation of the treatment system is not necessary;

- Continued monitoring of two (2) existing Bowling Green Water District supply wells, located directly downgradient of the NCIA;

- Installation of nine (9) new monitoring wells at locations downgradient of Old Country Road;

- Implementation of a long term groundwater monitoring program requiring quarterly sampling of nine (9) new and thirteen (13) existing groundwater monitoring wells for the first two years and periodically thereafter, and;

- Institutional controls in the form of existing use restrictions limiting the use of groundwater as a potable or process water without necessary water quality treatment as determined by the NCDH from the affected areas.

Currently, negotiations are underway with the various PRPs for Orders to implement the selected remedy.

DESCRIPTION OF THE SIGNIFICANT DIFFERENCES AND THE BASIS FOR THE DIFFERENCES

This ESD is being issued to ease implementation of the remedy for the NCIA Sites, OU3, to clarify the treatment areas for the Eastern, Central and Western plumes in implementing the selected remedy. This is a minor change in the scope of the selected remedy.

For each of these two areas - the central/eastern plume and the western plume - the applicable PRPs will install one 225-ft vapor stripping well, with ancillary systems, for the purpose of a pilot study to determine the radius of influence, the effectiveness of the in-well vapor stripping system, and the number and location of additional stripping wells needed. Further, for each of these two areas, a long term monitoring program will be instituted. This program will specify the number and location of groundwater monitoring wells and frequency of sampling to allow the effectiveness of each remedy to be monitored and will be a component of the operation, maintenance, and monitoring for each treatment area. The changes due to implementation of the remedy for the NCIA Sites, OU3, in each treatment area would likely increase the overall cost as some efficiency may be lost due to multiple pilot studies, separate implementation of the remedy for the NCIA Sites, OU3, in each treatment area and reduced economy of scale. Since there is only a minor change in scope, and no change in performance, the remedy remains protective of human health and the environment.

SCHEDULING AND SOURCES FOR MORE INFORMATION

Order negotiations to implement the remedy are underway, and are expected to be completed by December 2005 for the western plume and by February 2006 for the central and eastern plumes. If an Order cannot be reached with the PRPs, the NYSDEC will implement the selected remedy under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs incurred by the state. If you have any questions, or need additional information, you may contact any of the following:

Mr. Joseph G. Jones
Project Manager
NYSDEC
625 Broadway
11th Floor
Albany, NY 12233-7015
Phone: 518-402-9621

Jacquelyn Nealon
Environmental Health Specialist
NYSDOH
Bureau of Environmental Exposure
Investigation
Flanigan Square
547 River Street
Troy, NY 12180
Phone: 518-402-7880 or 1-800-458-1158,
extension 27530

11/15/05
Date

Joseph Jones, Project Manager
Remedial Bureau A

11/15/05
Date

FOR GUY BOBERSKY
Guy Bobersky, Section Chief
Remedial Bureau A

11/15/05
Date

Chittibabu Vasudevan, Director
Remedial Bureau A

NOV 15 2005
Date

Sal Ervolina, Assistant Director
Division of Environmental Remediation

NOV 15 2005
Date

Dale A. Desnoyers, Director
Division of Environmental Remediation