**NEWARK BAY STUDY AREA**
**PRP DATA EXTRACTION FORM**

SDMS Document
99629

# *Nuodex, Inc. Elizabeth, New Jersey Site*

**CANDIDATE PRP(S):**

**PRP: Degussa Corporation**

**CURRENT MAILING ADDRESS/CONTACT INFO:**

**PRP: Degussa Corporation**
Attn: John Salvatore, President & CEO
379 Interpace Parkway
Parsippany, New Jersey 07054

BBD000012

**FACILITY ADDRESS:**

The Nuodex, Inc. ("Nuodex") Elizabeth, New Jersey Site (the "Site") is comprised of two tracts. An approximately 20-acre portion of the Site is bordered by industrial properties on the east and west, railroad tracks on the south and Magnolia Avenue on the north:

830 Magnolia Avenue
Elizabeth , Union County, New Jersey 07201
Block 3; Lots 8-1178, 8-1179, 8-1179A, 8-1202, 8-1210

The Site also includes an approximately 10,000 square foot warehouse located on an approximately 6-acre tract, across Magnolia Avenue to the north:

833 Magnolia Avenue
Elizabeth, Union County, New Jersey 07201

BBA000001, BBA000003, BBA000011, BBA000018

The approximate locations of these different portions of the Site are shown on the following aerial photograph:

**Nuodex, Incorporated**
830 & 833 Magnolia Avenue
Elizabeth, Union County, New Jersey

Aerial Photograph dated 2006
Photo Source: Google Earth (Europa Technologies/State of New Jersey)

Site boundary line locations as shown are approximations

**FINANCIAL VIABILITY** (annual revenue, # of employees):

Degussa Corporation, the North American subsidiary of Degussa AG, operates about 150 facilities throughout North America and employs approximately 6,000 individuals. Sales of approximately $3 billion were reported for 2005. BBD000012

Degussa AG is a multinational specialty chemicals company with over 45,000 employees worldwide. Degussa AG is headquartered in Dusseldorf, Germany, and the Chairman of the Board of Management is Professor Utz-Hellmuth Felcht. The company is listed in the German DAX index, as well as, Bloomberg (ticker symbol DGX GR) and Reuters (ticker symbol DGXG.DE). Degussa AG reported sales of $10.7 billion euros for 2004 and $11.75 billion euros for 2005. BBD000013, BBD000014

**DATES OF OPERATION** (include info. on predecessors/successors if known):

Mr. Leo Roon, a pioneer in the field of paint dryers, established the Nuodex Products Company in 1932. The Elizabeth facility was reportedly constructed in 1940 for chemical production. Although ownership of the Site changed hands numerous times over the years, it was always used for chemical manufacturing. BBD000009, BBD000010, BBA000004

1954: Nuodex Products Company was sold to Heyden Chemical Corporation and operated as a subsidiary. At some point, Heyden Chemical Corporation changed its name to Heyden Newport Chemical Corporation ("Heyden Newport"). BBD000009, BBC000002, BBE000001

1963: Tenneco, Inc. acquired Heyden Newport. BBE000001

1965: Heyden Newport was the core of Tenneco Chemicals, Inc. ("Tenneco Chemicals") that was formed in March 1965. Nuodex Products was listed as a division of Heyden Newport in the 1965 New Jersey Industrial Directories. BBC000003, BBD000011

1982: Nuodex, a private company formed and headed by former Tenneco Chemicals employees, purchased "substantially all" of Tenneco Chemicals from Tenneco, Inc. BBA000003, BBD000001

1985: Nuodex notified the New Jersey Department of Environmental Protection ("NJDEP") of its pending sale to Huls AG. As a result, Environmental Cleanup Responsibility Act (ECRA) requirements – Case No. 85374 – were triggered by the proposed transfer of the Site. Nuodex was purchased by Chemische Werke Huls A.G. ("Huls AG"). BBA000001, BBA000006, BBA000008, BBD000001

1988: Huls AG consolidated its American operations of Nuodex and Dynamit Nobel to form Huls America Inc. BBD000001

1990: In May 1990, NJDEP issued a Letter of Conditional Cleanup Plan Approval for the soil and groundwater contamination at the Site. BBA000006, BBA000008

1993: In June 1993, chemical manufacturing operations were discontinued at the Site. BBA000007

1998: On January 1, 1998, Huls America Inc. changed its name to CREANOVA Inc. The name change was part of a "Global Fitness" program whereby Huls AG was transformed into a strategic holding company with twelve global operating subsidiaries. BBA000010, BBD000015

1999: Huls AG merged with Degussa AG on February 8, 1999 to become Degussa-Huls AG. BBD000008

2000: CREANOVA listed in media article as a U.S. subsidiary of Degussa-Huls AG. BBD000016

2001: Degussa-Huls AG merged with SKW Trostberg AG on February 11, 2001 to form the new Degussa AG. BBD000008, BBD000012, BBD000013

2002: Degussa Corporation, the North American arm of Degussa AG, announced that CREANOVA Inc. was no longer a business entity as of December 31, 2002. BBD000002, BBD000012, BBD000013

2004: Modification of NJPDES Permit No. NJ0102270 for the Site reported by NJDEP; changing permittee name from CREANOVA Inc. to Degussa Corporation effective October 27, 2004. BBD000017

2005: In April 2005, the NJDEP was notified that the new owners of the Site, LSD Developers, LLC, were prepared to begin re-development of the Site. Degussa Corporation, as holder of the Site permit, remains responsible for the ongoing remedial requirements at the Site. BBA000015, BBA000017

**DESCRIPTION OF FACILITY OPERATIONS** (list CERCLA hazardous substances used, manufactured or present):

Site was originally developed in 1940 for the production of metallic naphthenates for paint and varnish drying; mercury-based fungicides; and other various metal soaps (salt driers) that were used as driers for paints, catalysts, fuel oil additives, vinyl stabilizers, and fungicides. The 1964 Pesticide Handbook lists Nuodex as a manufacturer of various fungicides at the Site, including tetrachlorophenol. BBA000001, BBA000002, BBA000004, BBC000001, BBC000004

Manufacturing operations took place at the 830 Magnolia Avenue portion of the Site. A majority of the Site was covered by the main production building. Process/storage tanks, driveways, and parking lots covered the remainder of the Site. The facility also operated two warehouses: one attached to the main production building for the storage of finished goods; and the other, located across the street at 833 Magnolia Avenue, for the storage of raw materials, non-flammable finished goods, and operating supplies. Drummed spent solvents, off-grade products, and flammable raw materials were also stored in the yard at the 833 Magnolia warehouse. BBA000001

The following hazardous substances and materials (without limitation) have been formulated, utilized, handled or disposed of by Nuodex at the Site in its manufacturing operations:

- 2,3,4,6-Tetrachlorophenol (United States Environmental Protection Agency{"USEPA"} Class I Pesticide Chemical associated with the formation of dioxin)
- Copper 8-quinolonolate solution
- Di (phenylmercury) dodecenyl succinate
- Dichlorophene
- Folpet [N-(trichloromethylthio)phthalimide]
- Phenyl mercury acetate
- Phenyl mercury oleate
- Quarternary ammonium naphthenates
- Sodium salt of mercaptobenzothiazole
- Zinc naphthenate
- Dichlorobenzene (USEPA Class III Organic Chemical associated with the formation of dioxin)
- Maleic anhydride (USEPA Class III Organic Chemical associated with the formation of dioxin)
- Benzene
- Naphthenic acid
- 2-Ethyl hexoic acid
- Phenyl didecyl phosphite
- Methyl ethyl ketoxime
- Mercury
- Lead, nickel, calcium, manganese, cobalt and zirconium octoate

BBA000001, BBC000004

In addition to these specific hazardous substances, others have been detected in wastewater effluent, soil and groundwater at the Site. Those hazardous substances, such as the chlorinated phenols and chlorinated benzenes identified elsewhere in this report, are typically related to the types of processes employed at the Site and in some cases typically serve as raw materials and/or intermediates for the types of products manufactured at the Site.

Wastewater from the various processes was collected in a series of trench drains and sumps throughout the Site. Prior to 1983, untreated process wastewaters, along with non-contact cooling water, domestic and stormwater, were discharged to the Joint Meeting of Essex and Union Counties ("JMEUC") treatment plant through the City of Elizabeth combined sewer system. BBB000001

In their May 27, 1985 Environmental Cleanup Responsibility Act (ECRA) General Information & Site Evaluation Submissions, Nuodex provided the results of Priority Pollutant analysis conducted in May 1980. Samples of the discharge effluent, collected from a catch basin and the laboratory sump, contained the following hazardous substances at the levels indicated:

- 2,4,6-Trichlorophenol up to 3,970 ppb (Polychlorinated phenol associated with the formation of dioxin)
- 2,4-Dichlorophenol up to 3,110 ppb (USEPA Class I Organic Chemical associated with the formation of dioxin)
- Benzene up to 69,700 ppb
- Chlorobenzene up to 2,050 ppb (USEPA Dioxin Precursor Chemical)
- 1,3-Dichlorobenzene up to 2,170 ppb

- 1,2-Dichlorobenzene up to 417 ppb (USEPA Class III Organic Chemical associated with the formation of dioxin)
- 2-Chlorophenol up to 11,100 ppb (USEPA Dioxin Precursor Chemical)
- Phenol up to 939,000 ppb
- 2,4-Dinitrophenol up to 6,000 ppb (USEPA Class III Organic Chemical associated with the formation of dioxin)
- 2-Methyl-4,6-dinitrophenol 268 ppb
- 4-Nitrophenol up to 52,400 ppb
- Mercury up to 2,500 ppb
- Zinc up to 45,500 ppb
- Lead up to 8,920 ppb

BBA000002

In March 1983, a pretreatment system was installed. Process wastewater, except that from the Mercury Fungicide Department, was pumped from the sumps to a separation tank for pretreatment prior to the effluent being discharged to the JMEUC treatment plant. The precipitated metal filter cake was stored in drums prior to off-Site disposal. The mercury department had a self-contained sewer system that was separate from the main plant operations. As with the other process wastewaters, the mercury wastewater was collected in a separate set of drains and a large sump, prior to being pumped into a separate pretreatment tank. The precipitated mercury filter cake, however, was processed again to recover the mercury metal for reuse, prior to off-Site disposal. The effluent was discharged to the JMEUC sewer treatment plant. In 1986, Nuodex informed the NJDEP that the mercury and vinyl operations had been permanently shut down. BBA000001, BBA000002, BBB000001

In 1985, Nuodex notified NJDEP of its pending sale to Huls AG. As a result, ECRA requirements – Case No. 85374 – were triggered by the proposed transfer of the Site. A July 1989 Cleanup Plan identified the soils adjacent to the mercury and vinyl departments and parallel to the rail siding as the most heavily contaminated on-Site. Additional areas of contamination identified included the crawl space beneath the vinyl department floor, aboveground and underground storage tank areas, and the outside drum storage area at the 833 Magnolia warehouse. In May 1990, NJDEP issued a Letter of Conditional Cleanup Plan Approval for the soil and groundwater contamination at the Sites. Quarterly groundwater monitoring activities began at the Site in 1990. The cleanup of on-Site contaminated soils was completed in 1991. That same year, a groundwater recovery/remediation system was installed to recover and treat the contaminated groundwater, prior to re-use as process contact wastewater in the manufacturing plant. After on-Site re-use, the groundwater was treated with the rest of the facility process water before being discharged to the JMEUC combined sewer system. Discharges to the JMEUC ceased in 1993, when operations at the Site were discontinued. BBA000001, BBA000002, BBA000005, BBA000006, BBA000008

Since then, the recovered groundwater has been pre-treated on-Site and discharged, under the authority of NJPDES-DSW Permit No. NJ0102270, to the peripheral ditch that circumscribes Newark Airport via storm sewer. BBA000007, BBA000013, BBA000016

NJPDES Effluent Monitoring Results for August 2001 through June 2005 reported the following constituents at the levels indicated:

- pH (Std. units) up to 7.64

- Total Arsenic up to <4.5 ppb
- Total Mercury up to 0.21 ppb
- Naphthalene up to <0.7 ppb
- Bis 2-(ethylhexyl)phthalate up to 2.7 ppb
- 1,2-Dichloroethane up to <0.4 ppb
- Benzene up to <0.3 ppb
- Tetrachloroethylene up to <0.4 ppb
- PCBs up to <0.3 ppb

BBA000018

In 1996, the main production building and tank farm areas were demolished, leaving only the warehouse portion of the building at the 830 Magnolia portion of the Site. BBA000009
In 2004, NJDEP reported of a modified NJPDES Permit No. NJ0102270 - changing the permittee name from CREANOVA Inc. to Degussa Corporation effective October 27, 2004.
BBD000017

**SITE SOIL SAMPLING and CONTAMINATION:**

In 1981, soil sampling and analysis was conducted for only metals, soil COD, phenyl acetic acid and dodecyl succinic acid. Analysis for chlorinated phenols was not conducted, despite their apparent use at the Site as indicated above. The following hazardous substances were detected in Site soils at the levels indicated:

- Cadmium up to 62,700 ppb
- Barium up to 22,500 ppb
- Zinc up to 10,700 ppb
- Mercury up to 144,000 ppb
- Lead up to 50,500 ppb
- COD (as percent organic carbon) up to 37.1%
- Phenyl Acetic Acid below detection limit
- Dodecyl Succinic Acid below detection limit

BBA000001

Phase I and Phase II investigations conducted at the Site in 1986 and 1989, respectively, consisted of sampling Site soils for metals, petroleum hydrocarbons, and volatile organic compounds. The following hazardous substances were detected in the soil at the levels indicated:

- Benzene up to 340,000 ppb
- Ethylbenzene up to 59 ppb
- Tetrachloroethene up to 180 ppb
- Toluene up to 570 ppb
- Bis(2-ethylhexyl)phthalate up to 1,600 ppb
- Petroleum hydrocarbons up to 33,000,000 ppb
- PCB 1248 up to 550,000 ppb
- Mercury up to 3,000,000 ppb

BBA000005

Additional delineation sampling conducted in 1999, reported Dieldrin in several soil samples up to 560 ppb. BBA000011

**SITE GROUNDWATER SAMPLING and CONTAMINATION:**

Groundwater monitoring results for December 1990, March 1993, and April 2001 through May 2005 reported the following hazardous substances present in the groundwater at the levels indicated:

- Benzene up to 46,000 ppb
- Chlorobenzene up to 840 ppb (USEPA Dioxin Precursor Chemical)
- Trichloroethene up to 1.4 ppb
- Ethylbenzene up to 9.8 ppb
- Toluene up to 3.9 ppb
- 1,4-Dichlorobenzene up to 5 ppb
- 1,2-Dichlorobenzene up to 42 ppb (USEPA Class III Organic Chemical associated with the formation of dioxin)
- Chloromethane up to 1.6 ppb
- Chloroethane up to 1.5 ppb
- Aroclor 1248 up to 3,400 ppb
- Total Xylenes up to 130 ppb
- Total Base Neutral Compounds up to 142 ppb
- Volatile Organic TICs up to 1,027 ppb
- Base Neutral TICs up to 10,358 ppb
- Arsenic up to 96.1 ppb
- Cadmium up to 3,600 ppb
- Chromium up to 930 ppb
- Copper up to 4,240 ppb
- Lead up to 3,100 ppb
- Mercury up to 6,800 ppb
- Nickel up to 3,200 ppb
- Zinc up to 5,540 ppb

BBA000006, BBA000008, BBA000018

Groundwater in the shallow and deep zones beneath the Site is reported to flow in an easterly direction toward Newark Bay. BBA000003, BBA000018

**PERMITS** (provide dates):

NPDES:

NJPDES-DSW Permit No. NJ0102270 was issued to CREANOVA Inc., as the permittee and property owner. The permit, effective date of May 1, 2000 and expiration date of April 30, 2005, regulated the discharge of treated groundwater to the Newark Airport Peripheral Ditch via storm sewer. In 2004, NJDEP modified NJPDES Permit No. NJ0102270 changing the permittee name from CREANOVA Inc. to Degussa Corporation effective October 27, 2004. The permit was renewed in 2005 as an Individual NJPDES/DSW under the Remediation Cleanup General Permit Authorization, which authorizes the discharge of remediated groundwater to surface waters of the state. NJPDES Permit No. NJG0102270 was effective on June 1, 2005 and expires May 31,

2010. The permit lists Degussa Corporation as the facility name/operating entity and LSD Linden LLC as the property owner. BBA000013, BBA000016, BBD000017

POTW (pretreatment): No information is available at this time.

**NEXUS TO NEWARK BAY STUDY AREA** (describe in detail; cite to supporting documentation; date or time period of disposal; list CERCLA hazardous substances; and volume, if known):

Direct (e.g. pipe, outfall, spill):

In order to comply with an Interstate Sanitation Commission order, the City completed the construction of an Easterly Interceptor Sewer (the "Interceptor") in 1957. The Interceptor runs along the southwestern edge of Newark Airport and Trumbull Street leading to the Trenton Avenue Pumping Station, which discharges to the JMEUC Sewer Treatment Plant. The City and the municipalities that made up the JMEUC had entered into an agreement, dated January 16, 1930, which allowed the City to deliver for treatment an average of 18 million gallons per day (mgd) and a peak flow of 36 mgd to the Trenton Avenue Pumping Station. BAB000053, BAB000162, BAL000001

Prior to the installation of the Interceptor in 1957, wastewaters from the sanitary sewer were discharged untreated into Interstate Sanitation District Waters, which included the Peripheral Ditch, the Great Ditch, Newark Bay and the Arthur Kill. Wastewaters from the Site were tributary to the Trumbull St. outfall to Newark Bay. BAB000162

As previously discussed in the Description of Facility Operations section, Nuodex provided the results of effluent discharge Priority Pollutant analysis conducted in May 1980. The effluent at that time contained the following hazardous substances: 2,4,6-trichlorophenol; 2,4-dichlorophenol; benzene; chlorobenzene; 1,3-dichlorobenzene; 1,2-dichlorobenzene; 2-chlorophenol; phenol; 2,4-dinitrophenol; 2-methyl-4,6-dinitrophenol; 4-nitrophenol; mercury; zinc; and lead. While documents do not provide wastewater characterization information prior to 1957, the same or similar operations are reported to have been conducted at the Site since the 1940s. BBA000002

The results for all of the hazardous substances listed above exceeded either the limits under the Joint Meeting Sewer Use Ordinance or Water Quality Criteria. Despite the detection of chlorinated phenols at the Site, they were not sampled for during remedial investigation activities. BBA000002

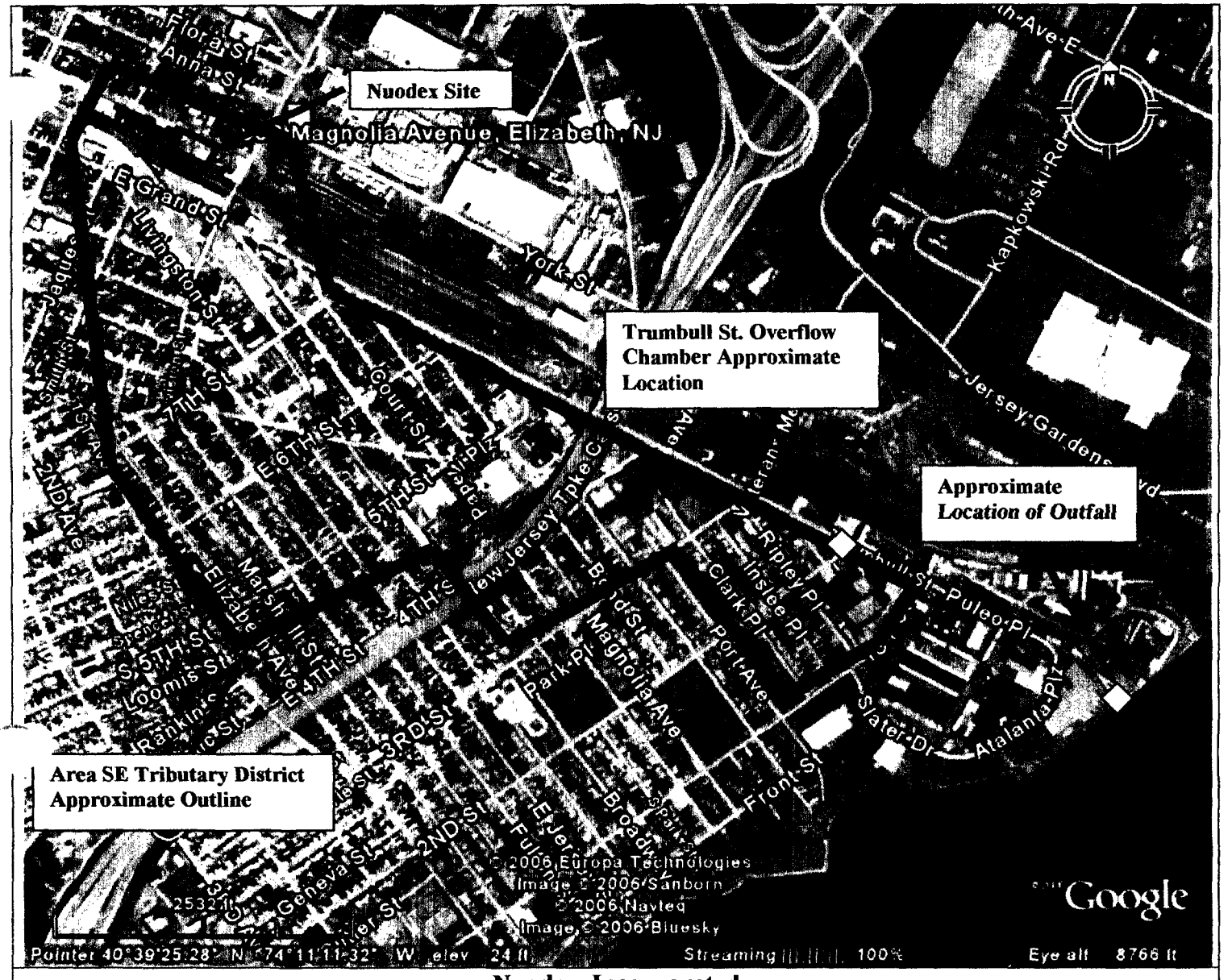
Sanitary Sewer (provide name and location of CSO; details regarding CSO overflows and dates):

The City of Elizabeth (the "City") was issued NPDES Permit No. NJ0020648 by USEPA on November 30, 1978 to discharge wastewaters from various combined sewer overflow ("CSO") outfalls to the Elizabeth River, Woodruff Creek, Arthur Kill, Newark Bay, and the Great Ditch. This permit was later combined in 1992 with JMEUC NJPDES Permit No. NJ0024741. BAB000135, BAK000010

The 1992 combined NJPDES permit for JMEUC and the City included the CSO outfall located at Trumbull Street in Elizabeth as a "permitted" discharge to Newark Bay. The Trumbull Street CSO was later renamed the Puleo Plaza CSO. BAB000135, BAB000162, BAJ000001

The Site is located within the City's "Area SE" sewer system tributary district, which is connected to the Trumbull Street CSO outfall. BAL000001

The following annotated aerial photograph identifies the approximate location of the Site within the "Area SE" tributary district and the Trumbull Street CSO outfall in Elizabeth, New Jersey:




**Nuodex, Incorporated**
**including Area SE Tributary District and Trumbull Street Outfall**
Elizabeth, Union County, New Jersey

Aerial Photograph Dated 2006
Photo Source: Google Earth (Europa Technologies/Navteq/Bluesky/Sanborn)

District outline and Site boundary and CSO outfall locations are approximations

As a result of NJDEP's development of a general permit for Combined Sewer Systems that was consistent with the National CSO Control Policy, the City was issued Individual Authorization No. NJ0108782 under the General Permit for Combined Sewer Systems NJPDES No. NJ0105023. The permit had an effective date of February 29, 2000 and an expiration date of February 28, 2005. BAG000002, BAJ000001

Prior to the installation of a pretreatment system in 1983, untreated process wastewaters were discharged directly to JMEUC through the City sewer system. BBA000001

1980: Numerous plant effluent exceedances of Elizabeth Sewer Use Ordinance 1313 and the Joint Meeting Sewer Use Ordinance limitations were reported for cadmium, copper, nickel, lead, zinc, mercury, and pH. BBA000002

Analytical results of the effluent sampled by Joint Meeting Maintenance from 1980 to 1985 reported the following hazardous substances at the levels indicated:

- Cadmium up to 40,000 ppb
- Copper up to 480,000 ppb
- Nickel up to 44,800 ppb
- Lead up to 675,000 ppb
- Zinc up to 310,000 ppb
- Mercury up to 6,980 ppb
- pH (Std. units) up to 12.5

BBA000002

June 20, 1980 numerous valves in the East Tank Farm were opened by an unknown person. Approximately 7, 000 pounds of Nuoplaz 850 (plasticizer); 2,400 pounds of Texanol Isobutyrate; 5,100 pounds of Neodol 25; and 1,800 gallons of No.6 fuel oil were released to the ground. An unknown quantity of the material reached a sewer drain and discharged through the City sewer to the JMEUC. BBA000001

January 15, 1981 approximately 420 gallons of kerosene was released from a tank line that had froze and ruptured. The kerosene flowed down the east driveway into the sewer. It was estimated that approximately 275 gallons of kerosene was discharged to the sewer. BBA000001

June 23, 1982 approximately 200 gallon of crude naphthenic acid overflowed from a tank being refilled from a railcar. Approximately 60 gallons drained to the lab sump and discharged through the City sewer to the JMEUC. BBA000001

In its April 1989 Status Report, JMEUC reported that Nuodex was not in compliance with the Categorical Standards for: Benzene; Chloroform; Toluene; 2,4-Dimethylphenol; Phenol; and Zinc. JMEUC also reported three major odor complaints. Nuodex was investigated and found to be the source of one of the complaints - odors at the Trenton Avenue Pumping Station. BAB000157

Storm Sewer:

See above discussion concerning documented discharges via Site storm sewers that are tied into the municipal combined sewer system.

Runoff:

No information available at this time.

Groundwater:

Groundwater contamination, exceeding ECRA action levels, has been confirmed at the Site and on-going remedial cleanup activities continue at this time. BBA000005, BBD000007

Groundwater in the shallow and deep zones beneath the Site is reported to flow in an easterly direction toward Newark Bay. BBA000003, BBA000018

**POTENTIAL NEXUS TO NEWARK BAY STUDY AREA** (describe in detail; cite to supporting documentation; list CERCLA hazardous substances; and volume, if known):

Direct (e.g. pipe, outfall, spill):

No information is available at this time.

Sanitary Sewer:

No information is available at this time.

Storm Sewer:

No information is available at this time.

Runoff:

Historically, wash waters from cleaning the floors in the mercury department were routinely diverted to the fill on the rail spur. The wash waters were contaminated with barium, cadmium, lead, mercury and some organics. BBA000001

Historically, bulk materials were received and transferred at the rail spur. Due to the nature of these operations, the potential for spills existed. BBA000001

Contaminated soils, as a result of leaks in the pipe system in the crawl space beneath the vinyl department floor, have been identified. BBA000001

Soil sampling and analysis conducted in 1981 showed the following hazardous substances at the levels indicated:

- Cadmium up to 33,600 ppb
- Barium up to 22,500 ppb
- Zinc up to 10,700 ppb
- Mercury up to 132,000 ppb
- Lead up to 50,500 ppb

BBA000001

Phase I and Phase II Investigation Results Reports dated September 1986 and March 1989, respectively reported the following hazardous substances in the soil at the levels indicated:

- Benzene up to 340,000 ppb

- Ethylbenzene up to 59 ppb
- Tetrachloroethene up to 180 ppb
- Toluene up to 570 ppb
- Bis(2-ethylhexyl)phthalate up to 1,600 ppb
- Petroleum hydrocarbons up to 33,000,000 ppb
- PCB 1248 up to 550,000 ppb
- Mercury up to 3,000,000 ppb

BBA000005

Additional delineation sampling conducted in 1999, reported Dieldrin in a few soil samples up to 560 ppb. BBA000011

Groundwater: No information is available at this time.

## REFERENCES

| BATES NO. | DATE | DESCRIPTION |
|---|---|---|
| BBA000001 | 5/27/85 | General Information & Site Evaluation Submissions for the Environmental Cleanup Responsibility Act, Volume I (excerpts) |
| BBA000002 | 5/27/85 | General Information & Site Evaluation Submissions for the Environmental Cleanup Responsibility Act, Volume II (excerpts) |
| BBA000003 | 11/4/85 | Revised Sampling and Analysis Plan for the Compliance with the Environmental Cleanup Responsibility Act (ECRA) |
| BBA000004 | 8/87 | Revised Sampling and Analysis Plan Addendum for the Nuodex Inc., Elizabeth Facility |
| BBA000005 | 7/89 | Cleanup Plan, Huls America Inc. |
| BBA000006 | 12/90 | Groundwater Monitoring Quarterly Report No. 1 |
| BBA000007 | Undated | NJDEP Fact Sheet for a Draft NJPDES Permit to Discharge for Huls America, Inc. |
| BBA000008 | 3/93 | Quarterly Groundwater Monitoring Report No. 9 |
| BBA000009 | 3/29/96 | Letter from Huls to NJDEP re: ISRA Case No. 85374 |
| BBA000010 | 1/14/98 | Letter from CREANOVA to NJDEP re: Company Name Change |
| BBA000011 | 11/23/99 | Letter from ECM to NJDEP re: Results of Additional Delineation Sampling |
| BBA000013 | 3/17/00 | NJPDES Permit No. NJ0102270 for CREANOVA Inc |
| BBA000015 | 3/1/05 | Letter from ECM to NJDEP re: Site Development |
| BBA000016 | 6/22/05 | Letter from NJDEP to Degussa re: Surface Water GPA Renewal for NJPDES Permit No. NJG0102270 |
| BBA000017 | 9/14/05 | Letter from ECM to NJDEP re: Request for NJDEP Meeting |
| BBA000018 | 11/11/05 | Letter from ECM to NJDEP re: Progress Report – |

| | | |
|---|---|---|
| | | January to June 2005 |
| BBB000001 | 10/20/86 | SIU/NJPDES Permit Application |
| BBC000001 | 1955 | 1955 Industrial Directories of New Jersey (excerpts) |
| BBC000002 | 1960 | 1960 Industrial Directories of New Jersey (excerpts) |
| BBC000003 | 1965 | 1965 Industrial Directories of New Jersey (excerpts) |
| BBC000004 | 1964 | 1964 Pesticide Handbook |
| BBD000001 | 7/17/06 | Factiva On-line "Industrial biocides: six decades of innovation" |
| BBD000002 | 7/17/06 | D&B On-line CREANOVA Inc |
| BBD000007 | 7/06 | NJDEP ON-line 1992 Site Status Report |
| BBD000008 | 8/7/06 | Degussa On-line Company History |
| BBD000009 | 8/10/06 | Stuyvesant On-line Leo Roon |
| BBD000010 | 8/10/06 | Troy Corp. On-line Troy's History in Metal Carboxylates |
| BBD000011 | 8/10/06 | Fundinguniverse On-line Tenneco Inc. Company History |
| BBD000012 | 8/15/06 | Hoovers On-line Degussa Corp. Fact Sheet |
| BBD000013 | 7/06 | Degussa On-line Annual Report 2005 (excerpts) |
| BBD000014 | 7/06 | Degussa On-line Portrait of Degussa |
| **From the Tenneco Garfield File:** | | |
| BBE000001 | 2/13/04 | Remedial Investigation Report and Remedial Action Work Plan for the Northern Phenol Area and Dowtherm DNAPL Areas (excerpts) |
| **From the City of Elizabeth File:** | | |
| BAG000002 | 8/27/99 | Letter from NJDEP to Hon. Robert Menendez |
| BAJ000001 | 2/28/00 | Letter from NJDEP to Hon Mayor J. Christian Bollwage of Elizabeth enclosing NJPDES General Permit #NJ0105023 and NJPDES Individual Permit NJ0108782 for City of Elizabeth. |
| BAL000001 | 8/81 | City of Elizabeth, Combined Sewer Overflow Pollution Abatement Program, Volume II, draft report, prepared by Clinton Bogert Associates. (excerpts) |
| **From the Joint Meeting of Essex and Union Counties File:** | | |
| BAB000053 | 11/28/83 | Joint Meeting letter to City of Elizabeth re: Sewer Problems |
| BAB000135 | 00/00/92 | NJDEP Fact Sheet for NJPDES Permit to Discharge for Joint Meeting and City of Elizabeth |
| BAB000157 | 4/89 | Joint Meeting Industrial Pretreatment Program Status Report |
| BAB000162 | 6/65 | The Interstate Sanitation Commission and the City of Elizabeth – A Case Study in Intergovernmental Enforcement (incomplete) |
| BBD000015 | 3/1/98 | Concrete Products On-line Manufacturers |
| BBD000016 | 2000 | IBM On-line Degussa-Huls divisions |
| BBD000017 | 11/17/04 | NJDEP On-line DEP Bulletin (excerpts) |

## RECOMMENDED FOLLOW-UP

Certain entities have been identified, as of this report, as being associated with the Site based on their known ownership and/or operational history at the Site. These entities are subject to further investigation in an effort to identify their potential nexus to liabilities associated with this Site.

To the extent that the former Tenneco Chemicals Inc. ever, in fact, operated at the Site through an unincorporated "division" and not through a subsidiary corporate entity, then the successor to Tenneco Chemicals Inc. – now known to be El Paso Tennessee Pipeline Company – may bear the liabilities of the former Tenneco Chemicals Inc. for the Site.

USEPA should issue CERCLA §104(e) Request(s) For Information to seek information from the following entity on the operational history of this Site; the discharge routes from this Site; and to bring current the corporate status, including the current status of an successor(s), annual revenue, number of employees, financial viability and to identify the current agent of service of legal process for the following:

El Paso Tennessee Pipeline Company
William A. Wise, Chairman, President & Chief Executive
1001 Louisiana Street
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