

J. Cucinello
Stream Pollution Report - Week of July 30 - August 3, 1979

Fabricolor - 24½ Van Houten Street, Paterson
7/30/79 Tomaro & Parr

A ruptured 8" sprinkler water line washed out old black dyes from the basement and discharged the black water to the Passaic River, through an old tunnel. The inspectors sampled the discharge for the laboratory. Mr. Nelson, Plant Manager, had the 8" sprinkler line shut off while repairs were made, which would take a few days. Violation eliminated.

Borough of Midland Park - 18" Storm Sewer at Godwin Ave.
7/30/79 Tomaro & Parr

Mr. Joseph Telerico, Chief Sanitarian at Waldwick, reported dead fish at the outlet of the 18" storm sewer at Godwin Avenue, Midland Park. The dead fish were gone when the inspectors investigated. However, samples analyzed by the P. V. S. C. laboratory contained fecal coliform, which is an indication of sanitary wastewater. Investigation will continue.

Atlas Refinery - 148 Lockwood Street, Newark
8/3/79 Colello & Fiore

This company has an inoperative oil separator which discharges polluting wastewater to the Lockwood Street storm sewer and the Passaic River. Although this was reported as far back as 5/24/79, the company has taken no action towards replacing or repairing the oil separator. They were directed to re-connect the discharge to the sanitary sewer, but not until the oil separator was in good working condition. P. V. S. C. will have to take action against this company, beginning with a strong letter from the Chief Engineer informing them of strict penalties for this continued violation.

Chem Lime Corp. - Avenue P, Newark
8/3/79 Fiore & Colello

This company, in some manner, pumped a lime slurry from their lime pits into Plum Creek on 7/6/79 causing a high pH in the Creek. Mr. Fitzpatrick, Company Representative, promised to drag the creek in order to remove the settled lime from the bottom. This was done, but not to the satisfaction of the inspectors who report a remaining residue of 4 inches of settled lime.

City of Clifton - 8" Sanitary Line at Third River
8/3/79 Fleming & Perrapato

This 8" sanitary line crossing Third River at the Automatic Data Processing Company, had been polluting Third River every time another break occurred in the joints. Temporary repairs were worthless because new breaks appeared shortly after. The line was repaired on 7/18/79 and

City of Clifton - CONTINUES

since then, all samples taken were characterized as non-polluting by the laboratory. Violation eliminated.

Borough of Lodi - Hendricks Pump Station
8/3/79 Cuccinello & Parr

An overflow 12" line is discharging sanitary wastes to the Saddle River and no plan have been made to correct this condition. The inspectors spoke to Mr. Kenneth Job, Borough Engineer, who promised to take up the matter with Mr. Della Penta, Superintendent, to determine the means of halting this pollution.

National Fuel Oil Co. - Passaic Avenue, East Newark
8/3/79 Fiore & Colello

The seepage of #2 fuel oil from this company into the Passaic River still continues. However, Mr. W. Tofariello, President, has taken steps to place a boom attached freely to steel rods so that it can rise and fall with tidal changes. They have also removed the oil-soaked earth from the storage tank vicinity and hauled it away. The inspectors will continue their surveillance and report any progress toward abatement of the oil seepage.

Royce Chemical Company - 17 Carlton Avenue, E. Rutherford
8/2/79 Cuccinello & Tomaro

Caustic material was still discharging from a 12" drain into a ditch leading to the Carlton Hill storm sewer. In addition, this same caustic material spills on the loading platform from which it flows into the open ditch leading to the Carlton Hill storm sewer. Mr. Ray Gluck, Chief Engineer, assured the inspectors that he would have the area cleaned up in order to halt this pollution. Further investigation to follow.

Paterson Dry Weather Sewer Overflows - Tomaro

During the week of July 30 - August 3, 1979 there were no dry weather sewer overflows to the Passaic River.

Pollution Violations by Municipalities

These violation have continued for several years and no action is contemplated by the municipalities toward abatement.

City of Clifton - Athenia Storm Sewer into Weasel Brook.
Borough of Lodi - Millbank Brook at Garibaldi Avenue to Saddle River.
Town of Lyndhurst - Lake Avenue and New York Avenue Storm Sewers into
the Passaic River.

Low Cuccinello

Stream Pollution Report - Week of August 6 - 10, 1979

Diae Inc. (Craftint Corp.) - 50 Carol Street, Clifton (Entin Village)
7/27/79 Fleming, Perrapato, Parr & Cuccinello

The inspectors noticed a large amount of red powder on the road leading to Entin Village. This was traced to the loading platform of the Diane Company where two pools of red liquid were found in the truck bay area. Mr. Ovie Lalo, V. P. in charge of production, informed the inspectors that during a delivery of 18 fifty five gallon drums of tempora water soluble paint, one had tipped over in the truck, spilling the red contents on the truck floor. They had washed out the truck floor into a yard drain which leads to the Passaic River through a storm sewer. The inspectors directed Mr. Lalo to start a cleanup operation by blocking off the yard drain and applying "Speedy Dry" to the red ground liquid. After a satisfactory cleaning operation the violation was eliminated.

Che Lime - Avenue P, Newark
8/6/79 Fiore & Colello

Elimination - The lime slurry from the lime pit that had accidentally been pumped into Plum Creek had settled to the bottom of the creek. Mr. Byrne had the company workmen drag the creek bottom to remove the accumulated lime. This was accomplished on 8/6/79 and the violation was eliminated.

City of Clifton - Blocked Sewer on Shafto Place
8/6/79 Fleming & Perrapato

The inspectors traced a muddy flow in McDonald Brook to an overflowing sanitary sewer on Shafto Place between Scoles and Rowland Avenue. Mr. Rudy Lorenz, Clifton Sewer Engineer, responded quickly with a work crew to unblock the sewer before the sanitary wastes reached Hughes Lake via McDonald Brook. In one hour the blockage was removed and the violation eliminated.

Borough of Hawthorne - Goffle Brook at Wagaraw Road
8/7/79 McLaughlin & Parr

A sample of the brook taken on 8/7/79 was analyzed by the P. V. S. C laboratory and characterized as polluted with sanitary wastewater due to the high fecal bacteria count. The inspectors are investigating the source of the pollution.

Royce Chemical - 17 Carlton Avenue, E. Rutherford
8/8/79 McLaughlin & Fleming

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Fresh samples taken near the loading platform still showed pollution of caustic material as well as C.O.D. and T.O.C. Mr. Ray Gluck, Chief Engineer, was directed to have his work crew do a more thorough cleaning

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TIERRA-B-012885

-Royce Chemical CONTINUED

of the area in order to prevent the pollution of the Carlton Hill storm ditch which leads to the Passaic River.

Town of Belleville - Chestnut Street Storm Sewer
8/10/79 Cordasco & Parr

Samples taken at this outlet to Third River still show high bacteria counts which are indicators of sanitary wastewater pollution. Superintendent Saldo, D. P. W., was notified to investigate the source of the pollution. Investigation will continue.

City of Newark - 380 Avenue P (Plum Creek) Property of Newark Housing Authority
8/6/79 Fiore & Colello

About 150 corroded drums of material resembling "Distillation Residue" called "Still or Pot Bottoms" had been dumped on this acreage several years ago. High ambient temperatures as well as the collapse of the corroded drums, caused this tarry material to melt and flow into the adjacent Plum Creek. The creek was now covered with this floating mass of thick black supernatant which resembled "Bunker C" fuel oil. Mr. Goldberg responded to do a personal investigation and to take samples of the offending wastes. He instructed them to contact the DEP Hazardous Waste Material Division because this material is highly flammable. Mr. John Vernon of DEP knows of this illegal dumping and is trying to have the City of Newark remove the drums.

Speer Village - City of Passaic
8/7/79 Fleming, Perrapato & Cuccinello

The Speer Village outlet to the Passaic River near Route 21 was sampled and reported polluted with sanitary wastewater. Speer Village apartments and the surrounding area were examined without finding the source of the pollution. Mr. E. Moller of P. V. S. C. was asked to furnish drawings and information about the sewer layout so that a more complete investigation may be conducted.

Paterson Overflow Sewers to the Passaic River

A survey of the Paterson outlets to the Passaic River showed no dry weather overflows during the week of August 6 - August 10, 1979.

Pollution Violations by Municipalities

These violations have continued for several years and no action is under consideration toward abatement.

City of Clifton - Athenia Storm Sewer into Weasel Brook
Borough of Lodi - Millbank Brook at Garibaldi Avenue into Saddle River
Town of Lyndhurst - Lake Avenue and New York Avenue Storm Sewers into the Passaic River

NARRATIVE

KBN000010

PRELIMINARY ASSESSMENT REPORT

PART I: GENERAL INFORMATION

Site Name: Royce Chemical Company
Address: 17 Carlton Avenue
Municipality: East Rutherford **State:** New Jersey **Zip Code:** 07073
County: Bergen
EPA ID No.: NJD001292499
Block: 24.05 **Lot(s):** 1-12
Block: 24.06 **Lot(s):** 13-20
Block: 24.07 **Lot(s):** 21-32
Block: 24.08 **Lot(s):** 33-42
Block: 24.09 **Lot(s):** 43-58
Block: 24.10 **Lot(s):** 59-82
Block: 24.11 **Lot(s):** 83-86
Latitude: 40° 50' 32" **Longitude:** 74° 6' 49"
Acreage: 5 **SIC Code:** 2819

Current Owner: The site is occupied by 86 townhouse units.

Current Operator: The site is occupied by 86 townhouse units.

Owner/Operator History:

<u>NAME</u>	<u>OPERATOR/ OWNER</u>	<u>DATES</u> <u>FROM</u>	<u>TO</u>
Royce Chemical Co.	operator	1929	1982
Standard Bleachery & Printing Co.	owner	unknown ¹	11/55 10/53
Broadgrant Corp.	owner	10/53	10/63
Royce Chemical Co.	owner	11/55	12/64
Carlton Hill Construction Co.	owner	10/63 12/64	10/84
Carlton-Herrick Association	owner	10/84	10/84
Triumph Developement	owner	10/84	1984-1987 ²

1 - The Standard Bleachery & Printing Co. purchased numerous portions of property in the area dating back to 1896. The exact date of purchase of the site by the Standard Bleachery Co. could not be determined.

2 - The Triumph Developement Company sold individual housing units at the site from 1984 through 1987.

KBN000011

TIERRA-B-012888

Surrounding Land Use (zoning, adjacent properties):

The site is bordered by Erie Avenue and a spur of the Erie-Lackawanna Railroad to the south, Carlton Avenue to the west, and numerous residential properties to the north and east.

Distance to Nearest Residence or School: On site

Direction: N/A

Population Density (residents per square mile): 2,075

PART II: SITE OPERATIONS

Discuss all current and past operations at the site. Be sure to identify all waste sources, the type and quantity of hazardous waste at each source and the type of containment for each source.

According to McRae's industrial directories and letterhead found on documents on file, the Royce Chemical Company (Royce) began operations at the site in approximately 1929. Prior to their occupancy, the site was operated by the Standard Bleachery Company dating back to as early as pre-1900. Operations of the Standard Bleachery Company could not be discovered in industrial directories; however, Sanborne Fire Insurance maps indicate that the company was involved with some form of textile preparation and cleaning. Operations of the Royce Chemical Company, at the time of closing in 1982, involved the manufacturing of sodiumhydrosulfite, zinc oxide, sodium sulfoxalate formaldehyde and zinc sulfoxalate formaldehyde which are used in the manufacturing processes of the textile and rubber industries. The following raw materials were used at the facility to manufacture these products: zinc powder, sulfur dioxide, salt (NaCl), sodium ash, methanol, zinc carbonate, formaldehyde and caustic soda. A review of industrial directories dating back to 1931 indicates that Royce was also involved with the production of other products including: water softeners, textile gums, finishes, sulphonated oils, royox, desizing agents, water repellents and concentrated cleaners. It is unknown what other raw materials may have been used for these processes. (Attachments A, D, J)

A review of aerial photographs indicates that a lake occupied the rear of the former Royce Chemical site. Photographs dated 1941, 1951 and 1953 show a lake or pond covering an estimated 60% of the rear area of the site. A subsequent photograph dated 1961 showed that the lake had been filled, reducing the size of the lake to approximately one third of its original size. A bulkhead type structure had been constructed to partition off the rear section of the lake prior to filling. Royce reportedly used the lake for non contact cooling water discharges prior to closing in 1982. Overflow from this lake was recieved by a drainage ditch which parallels railroad tracks along the southern border of the property, ultimately discharging to the Passaic River. The

discharge was covered by NJPDES permit #0002682. The lake was filled sometime after the site was abandoned by Royce Chemical as a series of townhouses exist where the lake once was. (Attachments A, L)

During a March 26, 1982 inspection of the facility, Mr. David Royce reported that raw material zinc powder was received from Royce Chemical of Newark, New Jersey and that all other raw materials were received in bulk by railcar. It was also reported that all the materials manufactured were made through mixing, filtering and drying processes and that no waste was generated as a result of these processes. Mr. Jay Royce stated that all wastes and residuals were recycled on site by reusing the material in their products. Some process wastes were discharged by permit to the Passaic Valley Sewer Commission under permit #06401173. (Attachments D, Q)

Royce was the sole occupant of the site until 1981 when Virginia Chemical of Portsmouth, Virginia purchased all assets of Royce. On February 12, 1982 Virginia Chemical made the decision to close down operations due to structural defects in the process building. Upon closing the facility, Royce had most of its raw materials and products moved off-site via sale or disposal. An inspection of the facility on March 26, 1982 by NJDEP personnel revealed that Royce had moved a majority of the remaining materials at the site to other locations. A large quantity of sodium hydroxide ash, salt and zinc powder was moved to Royce Industries in Newark. Sodium hydroxide and methanol was removed by Virginia Chemical to Virginia Chemical in Leeds, South Carolina. Approximately 1,000-gallons of anhydrous ammonia was removed by its original supplier, USS AgriChem of South Hackensack, New Jersey. Four dump truck loads, approximately 40,000 pounds each of mixed zinc carbonate and zinc oxide were sent to Madison Industries of Old Bridge, New Jersey. One truck load of mixed zinc carbonate and zinc oxide was sent to St. Joe Minerals & Resources of Monaca, Pennsylvania. At the time of the inspection a large amount of material was still at the site including: 15 to 20 dump truck loads of zinc carbonate and zinc oxide in 1,000 drums at the rear of the lot (later determined to be 908,600 pounds), 20,000-gallons of zinc slurry in two slurry tanks (approximately one pound of zinc/gallon), 20,000 gallons of zinc slurry in a cement slurry pit and two catch basins (the slurry pit was used to convey scrubber material from a kiln that converted zinc carbonate to zinc oxide), 3,000-gallons of formaldehyde contained in a tank inside the process building, 2,000-gallons of sodium hydroxide solution which was being removed during the inspection, four 55-gallon drums of compressor oil and 50 drums (35-gallon) of zinc powder in building #1 on the bottom floor. In addition to these materials two spills of oily material and several areas of white powder were noted throughout the lot. General housekeeping was noted to be poor and inadequate. (Attachments D, J)

An additional inspection of the facility was conducted on April 23, 1982 by NJDEP personnel to determine the progress and status of the cleanup operation. The following observations were reported by the NJDEP inspectors:

- The drums of zinc oxide stored in the rear of the plant were sold to Madison Industries of Old Bridge, New Jersey
- All chemicals had been removed from the site.
- All chemical and gas lines had been purged.
- All tanks had been emptied, including 12 underground gasoline tanks.
- The methanol tanks had been filled with water.
- Approximately 20 drums of waste oil were being shipped to Neds Waste Oil in Newton, New Jersey.
- Settling basins in the buildings were being cleaned.
- Between five and six drums of boiler treatment chemicals were to be shipped to the Royce facility in Newark, New Jersey.
- Zinc residues were being vacuumed from inside the buildings and were scheduled to be shipped on April 26, 1982.

Six wells capable of producing 0.5 million gallons per day (MGD) were identified around the lagoon (pond) which were used for non-potable purposes in manufacturing. It is assumed that these wells were closed prior to construction of the townhouse units. (Attachment E)

On March 23, 1983 a spill of diesel fuel occurred at the site while demolition operations were being conducted. The spill, consisting of 350 gallons, collected in the pond at the southeast side of the site before it was identified. Remedial activities were implemented over the next three days following the spill and during September 1984 when the site was being prepared for construction of townhouse units. No other supporting documentation was discovered for this remedial activity. (Attachment F)

On April 28, 1983 a report of illegal dumping was reported to the NJDEP regarding Royce Chemical. On Monday May 2, 1983, NJDEP personnel reported to the site to investigate the reported incident. The investigators reported the following observations at the site:

- On the northeastern side of the demolished buildings a spill measuring 20 feet by 30 feet of an oily substance was noted where the boiler room was previously located.
- An area of white powder measuring approximately 20 feet by 20 feet was also noted in this area; on the south side of the building were three tanks containing zinc oxide.
- The ground on the south side of the building was covered by a 30 feet by 40 feet area of "salt crust."
- Two small spills of gear oil, three dismantled tanks containing white powder and parts of small equipment were on the southwestern side of the site.
- Water within the pond on the southeast corner of the site appeared to be contaminated.

Three soil samples were collected at this time which did not reveal significant contamination. (Attachment G, I)

A follow-up inspection of the site was conducted on May 3, 1983. At this time the NJDEP inspectors met with Mr. Albert J. Royce to discuss the status of the site. Mr. Royce explained that all hazardous materials were removed from the site prior to the execution of demolition operations. When questioned regarding the materials noted in the April 28, 1983 inspection, Mr. Royce explained that the white powder was zinc oxide which is non hazardous, the salt-like material was sodium hydrosulfate and the oil spills were #6 heating oil. Copies of waste manifests which demonstrated that asbestos, fuel oils and contaminated soil had been removed from the site between July and August 1982 were provided to the NJDEP inspectors. The inspectors then advised Mr. Royce to remove and properly dispose of the remaining spills of #6 fuel oil and associated contaminated soils. Available manifest information indicates that soils and oily wastes were removed from the site on May 10, 1983 and August 13, 1983 respectively. (Attachments G, H, P)

By the end of 1983 the site had been completely razed. It is believed that the construction of housing units began at the site sometime thereafter as the Triumph Development Company began selling units at the site in December 1984 through June 1987. The site is currently occupied by 86 housing units.

PART III: PERMITS

A. NJPDES

<u>Number</u>	<u>Discharge Activity</u>	<u>Date Issued</u>	<u>Expiration Date</u>	<u>Formation or Body of Water Discharged To</u>
NJ0002682	Discharge to SW	10/81	Discharge ceased 10/81	Tributary of the Passaic River

(Attachment A)

B. New Jersey Air Pollution Control Certificates

Plant ID No.: N/A*

No. of Certificates:

Equipment Permitted:

- * - Despite documentation discovered during the file search which indicated that the Royce Chemical Company had several problems regarding air pollution regulations, no file was discovered for the site. Royce Chemical ceased operations and vacated the site in 1982.

C. BUST Registration

Registration No.: N/A*

No. of Tanks:

<u>Tank No.</u>	<u>Capacity (gallons)</u>	<u>Contents of Tank</u>	<u>Integrity</u>
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- * - Royce Chemical Company ceased operations in 1982 prior to required registration mandated by the NJDEP, Bureau of Underground Storage Tanks which formed in 1986. However, an April 23, 1982 investigative report stated that all tanks on site were emptied including 12 underground gasoline tanks. These tanks were reportedly removed in the spring of 1982. No other files were discovered regarding these tanks.
(Attachment E)

D. Other Permits

<u>Agency Issuing Permit</u>	<u>Type of Permit</u>	<u>Permit No.</u>	<u>Date Issued</u>	<u>Expiration Date</u>
Passaic Valley Sewer Commission	Industrial Discharge	#06401173	11/2/81	11/2/86

(Attachment Q)

PART IV: GROUND WATER ROUTE

A. HYDROGEOLOGY

Describe geologic formations and aquifer(s) of concern. Include interconnections, confining layers, discontinuities, composition, hydraulic conductivity and permeability.

The East Rutherford area is underlain by the Brunswick Formation of the Triassic age consisting of thin-bedded shales, mudstones and sandstones which range in color from reddish-brown to gray. Ground water is contained in the numerous joints and fractures of the formation which are generally recharged from overlying glacial deposits consisting of silts, sands, clays, gravel and boulders. Near the surface, a mixture of fill materials consisting of pebbles, gravel, pieces of brick, metallic debris or wood splinters may be encountered. Ground water within the glacial deposits may be under confined conditions based on the fact that substantial clay layers exist below the site and a flowing well once existed in the southeast corner of the property.

(Attachment N)

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Depth to aquifer of concern: unknown
 Depth from lowest point of waste disposal/storage to highest seasonal level of the saturated zone of the aquifer of concern: unknown
 Permeability of the least permeable layer between the ground surface and the aquifer of concern: unknown
 Thickness of aquifer: 6,000 - 8,000 feet
 Direction of ground water flow: unknown
 (Attachment N)
 Karst (Y/N): No
 Wellhead Protection Area (Y/N): No Distance: N/A

B. MONITORING WELL INFORMATION

<u>Well No.</u>	<u>Screen Depth</u>	<u>Formation</u>	<u>Location</u>
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No monitoring wells exist at the site.

Identify the upgradient well(s): N/A

Briefly discuss why the monitoring wells were installed and describe contaminants identified in the monitoring wells. Include Well No., sampling date, sampling agency or company, contaminant levels and cleanup standards.

A flowing well in the southeast corner of the site was sampled by Dan Raviv Associates of West Orange, New Jersey on August 16, 1984. Analysis of the water for volatile organic compounds did not reveal any contaminants at the sensitivity level of 1 part per billion (ppb). (Attachment M)

C. POTABLE WELL INFORMATION

Distance to nearest potable well: >4 miles

Depth of nearest potable well: N/A

Identify all public supply wells within 4 miles of the site:

<u>Water Company</u>	<u>Distance from site (miles)</u>	<u>Depth (feet)</u>	<u>Formation</u>
Wallington Borough	1.1*	400	Brunswick
Wallington Borough	1.2*	400	Brunswick
Wallington Borough	1.3*	503	Brunswick
Wallington Borough	1.3*	506	Brunswick
Wallington Borough	1.4*	400	Brunswick
Garfield	2.8*	400	Brunswick

<u>Water Company</u>	<u>Distance from site (miles)</u>	<u>Depth (feet)</u>	<u>Formation</u>
Garfield	2.8*	405	Brunswick
Garfield	3.1*	475	Brunswick

* - Wells are currently inactive.
(Map 5, Attachment O)

Discuss private potable well use within 4 miles of the site.
Include depth, formation and distance, if available.

Potable water for the region is provided primarily from surface water sources and is distributed by the Passaic Valley Water Commission. (Attachment O)

Discuss the site's source of potable water.

Potable water for the site is provided by the Passaic Valley Water Commission. (Attachment O)

Discuss for each aquifer the population utilizing that aquifer for drinking purposes within 4 miles of the site.

<u>Distance from site (miles)</u>	<u>Population Aquifer Name</u>	
	A	B
0 - 1/4	0	0
1/4 - 1/2	0	0
1/2 - 1	0	0
1 - 2	0	0
2 - 3	0	0
3 - 4	0	0

A - Quaternary glacial deposits
B - Brunswick formation
(Attachment O)

Discuss any evidence of contaminated drinking water or wells closed due to contamination. State whether Level 1 or Level 2 contamination is present.

There are no active drinking water wells within four miles of the site.

Identify industrial/irrigational wells within the vicinity of the site. Include depth, formation, distance and direction, if available.

The closest industrial wells are located 0.2 miles northwest of the site and are operated by the Orval Kent Food Company Inc. The wells (3) are screened in the Brunswick formation at 300 to 580 feet. (Map 5)

D. POTENTIAL

Discuss the potential for ground water contamination, including any other information concerning the ground water contamination route.

Soil borings conducted at the site indicate low levels of subsurface contamination consisting of ethylbenzene, chlorobenzene and toluene where the buildings were previously located. Other borings conducted throughout the area of the site did not reveal contamination by volatile organic compounds in the subsurface. However, no subsurface samples were analyzed for base/neutral compounds or metals, which may have been more appropriate for this site. It is unknown if operations at the site may have caused ground water contamination. (Attachment M)

PART V: SURFACE WATER ROUTE

A. SURFACE WATER

Does a migration pathway to surface water exist (Y/N): Yes
Flood plain: >500 year (Map 7) Slope: >3% (Map 1)

Does contaminated ground water discharge to surface water (Y/N): No

Identify known or potentially contaminated surface water bodies. Follow the pathway of the surface water and indicate all adjoining bodies of water along a route of 15 stream miles.

<u>Surface Water Body</u>	<u>Distance from site</u>	<u>Flow(cfs)</u>	<u>Usage(s)</u>
Unnamed tributary of Passaic River	0	10	None
Passaic River	0.5 mile	$10^3 - 10^4$	Industrial Recreational Fishing
Newark Bay	14.0 miles	$>10^4$	Industrial Recreational Fishing

Identify drinking water intakes within 15 miles downstream (or upstream in tidal areas) of the site. For each intake identify the distance from the point of surface water entry, the name of the supplier and population served.

No drinking water intakes were identified within the 15 mile surface water route.

Briefly discuss surface water or sediment sampling conducted in relation to the site. Discuss visual observations if analytical data is not available (include date of observation). Include surface water body, sampling date, sampling agency or company, contaminant. State whether Level 1 or Level 2 contamination is present.

Surface water and sediment samples were collected in the pond previously located on the east side of the site on February 29, 1984 by Dan Raviv Associates of West Orange, New Jersey. (See sample point maps in attachment K) Results are summarized below.

Volatile Organic Compounds

Samples P-1, P-1A, P-2, P-2A, PIT-5 (water) PS-1 and PS-2 (sediment) were analyzed for volatile organic compounds, of which only PIT-5, PS-1 and PS-2 displayed contamination:

<u>Sample #</u>	<u>Compounds Present</u>	<u>Concentration (ppb)</u>
PIT-5	benzene	0.6
	perchloroethylene (PCE)	3.5
	toluene	2.3
	ethylbenzene	3.4
PS-1	benzene	16.4
	toluene	282.0
	ethylbenzene	294.0
PS-2	methylene chloride	2.7

Samples P-1, P-1A, PIT-5 (water) and PS-1 (sediment) were analyzed for metals:

<u>Metals (ppm)</u>				
<u>Metal</u>	<u>P-1</u>	<u>P-1A</u>	<u>PIT-5</u>	<u>PS-1</u>
Arsenic	<0.005	0.018	0.005	3.35
Barium	0.126	0.130	0.158	83.8
Cadmium	0.002	0.001	0.017	1.98

Metals cont.(ppm)

<u>Metal</u>	<u>P-1</u>	<u>P-1A</u>	<u>PIT-5</u>	<u>PS-1</u>
Chromium	0.014	0.007	0.027	144.0
Lead	0.004	0.003	0.37	175.0
Mercury	<0.0005	<0.0005	0.0045	0.12
Selenium	<0.005	0.19	0.006	4.08
Silver	<0.002	<0.002	<0.003	0.571
Zinc	1.05	0.15	202.0	9,344.0

Samples P-3, P-3A, P-4, P-4A, RC-1SW (water), PS-2 and PS-3 (sediments) were analyzed for pH and selected metals:

Metals (ppm) & pH

<u>Sample #</u>	<u>pH</u>	<u>Lead</u>	<u>Barium</u>	<u>Zinc</u>
P-3	7.34	0.016	0.11	0.11
P-3A	7.54	0.008	0.14	0.111
P-4	7.5	0.009	0.15	0.116

Metals (ppm) & pH (cont.)

<u>Sample #</u>	<u>pH</u>	<u>Lead</u>	<u>Barium</u>	<u>Zinc</u>
P-4A	7.51	0.015	0.14	0.153
RC-1SW	7.7	0.027	0.10	4.33
PS-2	7.52	148.0	48.3	4,059.0
PS-3	7.55	79.4	68.3	4,880.0

(Attachments L, M)

Identify if surface water is used for irrigation of commercial food or commercial forage crops, watering of commercial livestock or commercial food preparation.

No surface water intakes used for irrigation of commercial food, commercial forage crops, watering of livestock or commercial food preparation have been identified along the 15 mile stream pathway.

Discuss the potential for surface water contamination, include any additional information concerning the surface water route.

The pond previously located in the southeast corner of the site has received runoff, non contact cooling water and oil spills in the past. Sediment samples have displayed elevated levels of zinc, lead, toluene, benzene, ethylbenzene and chromium. Overflow from the pond entered an unnamed tributary of the Passaic River which was covered under NJPDES permit #NJ0002682. It appears that the NJPDES permit was finalized at about the same time the company ceased discharging to the pond in October 1981; therefore, sampling

data is unavailable for this discharge. It is possible that the unnamed tributary and the Passaic River may have received contamination from this source. (Attachments A, L)

B. SENSITIVE ENVIRONMENTS

Identify all sensitive environments, including wetlands, along the 15 stream-mile pathway from the site:

<u>Environment Type</u>	<u>Surface Water Body</u>	<u>Flow (cfs)</u>	<u>Distance from site</u>	<u>Wetland Frontage</u>
R1FL	Passaic River	$10^3 - 10^4$	2.9 miles	0.35 miles
R1FL	Passaic River	$10^3 - 10^4$	3.38 miles	0.35 miles
R1FL	Passaic River	$10^3 - 10^4$	3.86 miles	0.1 miles
R1FL	Passaic River	$10^3 - 10^4$	4.0 miles	0.1 miles
R1FL	Passaic River	$10^3 - 10^4$	4.38 miles	0.08 miles
E2FL	Passaic River	$10^3 - 10^4$	6.3 miles	1.25 miles
E2FL	Passaic River	$10^3 - 10^4$	9.0 miles	0.2 miles
E2FL	Passaic River/ Newark Bay	$10^3 - 10^4$	12.7 miles	0.4 miles

R1FL - Riverine Tidal Flats

E2FL - Estuarine Intertidal Flats

(Map 6)

PART VI: AIR ROUTE

Discuss observed or potential air release.

Despite documentation discovered during the file search which indicated that the Royce Chemical Company had several problems regarding air pollution regulations, no file was discovered for the site. Royce Chemical ceased operations and vacated the site in 1982. Housing units were constructed at the site since this time, therefore an air release is not possible.

Populations that reside within 4 miles of the site.

<u>Distance (miles)</u>	<u>Population</u>
0 - 1/4	2,450
1/4 - 1/2	2,425
1/2 - 1	23,320
1 - 2	79,630
2 - 3	109,205
3 - 4	120,279

(GEMS)

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Identify sensitive environments and wetland acreage within 4 miles of the site.

<u>Distance</u>	<u>Type of environment</u>	<u>Wetland acreage</u>
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No air release threat has been identified for this site.

Identify all land resources (commercial agriculture, silviculture or recreation) within 4 miles of the site.

No air release threat has been identified for this site.

PART VII: SOIL EXPOSURE

Describe soil type. Include soil series, makeup of the soil and permeability of the soil.

Prior to construction of residential units, soil borings were conducted at the site for engineering purposes. Materials recovered from the borings indicate that the site is underlain with mixed fill of thickness ranging from 5 to 10 feet. The fill is a fine to medium grained reddish-brown soil which may contain pebbles, gravels, pieces of brick, metallic debris or wood splinters. It is unknown how the construction of the housing units on the site may have altered the composition or stratification of the surficial soils. Due to the mixed composition of the soils over the area of the site, permeability should be considered variable. (Attachment M)

Briefly discuss contaminants identified in the soil. Include sampling date, sampling agency or company, sample locations, depth and contaminant level. Be sure to identify if the sample was collected on a residential property, school, daycare center, workplace, terrestrial sensitive environment or resource. State whether Level 1 or Level 2 contamination is present.

On February 29, 1984 a series of soil samples were collected by Dan Raviv Associates of West Orange, New Jersey and analyzed for volatile organic compounds, metals, pH and polychlorinated biphenols (PCBs) to determine if contamination was present in preparation for sale of the site. All of the samples were collected within the original boundaries of the Royce Chemical site. (See sample maps in Attachment L) Results are summarized below.

Volatile Organic Compounds

<u>Sample #</u>	<u>Compounds Present</u>	<u>Concentration (ppb)</u>
RC-1S	None detected	
RC-1AS	None detected	
RC-2S	None detected	
RC-3S	trichlorofluoromethane (freon)	146.7
RC-4S	trichlorofluoromethane (freon)	6.7
RC-7S	None detected	

Metals (ppm)

<u>Metal</u>	<u>RC-1S</u>	<u>RC-1SA</u>	<u>RC-2S</u>	<u>RC-3S</u>	<u>RC-4S</u>	<u>RC-7S</u>
Arsenic	8.71	4.01	3.85	6.39	6.07	3.45
Barium	80.2	88.4	35.5	180.0	213.0	26.4
Cadmium	0.79	1.63	0.82	4.73	7.75	<0.73
Chromium	20.7	13.8	15.0	56.6	46.2	6.31
Lead	82.2	37.1	9.83	197.0	273.0	6.49
Mercury	0.17	0.12	<0.055	2.52	7.08	<0.056
Selenium	2.59	3.39	2.21	2.77	2.74	2.83
Silver	<3.33	<3.42	<3.43	<3.17	<3.33	<3.07
Zinc	680.0	914.0	598.0	11,385.0	17,850.0	60.6

Samples RC-3S and RC-4S were substantially above the NJDEP Soil Cleanup Criteria for zinc of 1,500 ppm. It is unknown if these samples were above standard due to residual materials (zinc oxides) on the soil surface or if the subject areas were ever remediated.

Metals (ppm) & pH

<u>Sample #</u>	<u>pH</u>	<u>Lead</u>	<u>Barium</u>	<u>Zinc</u>
RC-8S	9.08	202	<22	35,540

PCBs (ppm)

<u>Sample #</u>	<u>Concentration</u>
RC-5S	<0.016
RC-6S	<0.018

While test borings for engineering purposes were being conducted at the site, additional soil samples were collected by Dan Raviv Associates of West Orange, New Jersey on August 16, 1984 and analyzed for volatile organic compounds to determine if contamination had reached the subsurface. All samples were collected within the original boundaries of the Royce Chemical site. (See Attachment M) Results are summarized below:

Volatile Organic Compounds

<u>Sample #</u>	<u>Depth* of Sample ft.</u>	<u>Compounds Present</u>	<u>Concentration (ppm)</u>
CHC1AS	0-5	none detected	
CHC1BS	5-9	toluene	0.01
		chlorobenzene	0.06
		ethylbenzene	0.22
CHC2AS	0-5	toluene	0.01
		chlorobenzene	0.02
		ethylbenzene	0.19
CHC2BS	11.5-13.5	toluene	0.03
		chlorobenzene	0.09
		ethylbenzene	0.27
CHC3S	0-5.5	none detected	
CHC4AS	0-4	none detected	
CHC4BS	5.5-13.5	chlorobenzene	0.014
CHC5AS	0-5	none detected	
CHC5BS	5-10	none detected	
CHC6AS	0-5	none detected	
CHC6BS	5-25	none detected	
CHC7S	0-15	none detected	
CHC8S	0-15	none detected	

* - Sample depths indicate the range of depth at which a composite sample was collected.
(Attachments L, M)

Total area of surficial contamination (square feet): unknown

If no soil sampling has been conducted, discuss areas of potentially contaminated soil, areas that are visibly contaminated or results from soil gas surveys.

Extensive soil sampling has been conducted at the site. An informal inspection of the facility on July 1, 1994 did not reveal any visibly contaminated soils.

Identify if any commercial agriculture, silviculture, livestock production or grazing are present on or within 200 feet of the site.

There is no commercial agriculture, silviculture, livestock production, or grazing within 200 feet of the site.

Number of people that occupy residences or attend school or day care on or within 200 feet of the site: 282
Number of workers on or within 200 feet of the site: 0

Does a subsurface gas threat exist? (Y/N): No
If so, discuss the threat (include if in homes or occupied building).

PART VIII: DIRECT CONTACT

Describe accessibility of the site (fencing, site security, evidence of unauthorized entry).

The site is currently occupied by a number of townhouse units. Access to most areas of the site is relatively easy.
(Map 2)

Number of on-site employees: 0

PART IX: FIRE AND EXPLOSION

Discuss all incidents on site which have involved a fire or explosion. Indicate the date of the incident and the materials involved.

No incidents of fire or explosion were discovered in the documents reviewed.

Discuss site conditions which indicate a potential exists for fire or explosion (reactivity, incompatibility, ignitability, storage practices, container condition).

Housing units now occupy the entire site. Flammables and hazardous materials, other than those commonly found in households, are no longer stored or utilized at this site. The potential for a fire or explosion at this site is minimal.

PART X: ADDITIONAL CONSIDERATIONS

Discuss evidence of wildlife or vegetation that has been or could be potentially impacted by on-site operations. Include areas exhibiting stressed vegetation or damage to wildlife.

The site is currently occupied by a number of townhouse units and there are no industrial operations at the site. Potential impacts to wildlife or vegetation are unlikely at this time.

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Determine if a contaminant on site displays bioaccumulative properties. Name all bioaccumulative substances that may impact the food chain.

Zinc, a known bioaccumulator, has been detected at elevated levels in on-site soil and sediments. It is unknown if zinc has impacted the food chain prior to cleanup. (Attachment L, M)

Discuss observed or potential damage to off-site property. Consider migration routes from the site to an off-site property via soil, air or runoff.

The site is currently occupied by a number of townhouse units and there are no industrial operations at the site. The on-site pond was reportedly decontaminated on August 16, 1984, therefore the pond overflow and runoff is no longer of concern. Potential damage to off site property appears unlikely at this time.

PART XI: PREVIOUS OR ONGOING REMEDIAL ACTIONS

Discuss for each medium or area of concern all previous and ongoing remedial activities at the site. Include why initiated, type of action, date and present status.

On February 26, 1982 PCB contaminated soils were excavated from the transformer area and manifested off site through CECOS Trucking Inc. of Staten Island, New York. (Attachment B, D)

Throughout the spring of 1982 large quantities of raw materials, finished product, waste oils, zinc slurry, boiler treatment and 12 underground gasoline tanks were removed prior to the scheduled demolition of the buildings on site. A large portion of the materials removed were sold to other companies or relocated to Royce Chemical in Newark, New Jersey without manifests. No other official documentation of these activities was discovered during the file search. (Attachments D, E)

On March 23, 1983 an approximate spill of 350 gallons of #2 fuel oil was spilled at the site which ran into the on site lagoon. A vac truck was mobilized to the site which removed in excess of 1,000 gallons of oil and water from the lagoon. Sampling of the pond in March and August of 1984 revealed elevated levels of benzene, toluene, ethylbenzene and zinc in pond sediments. As a result, decontamination of the pond area was conducted on August 16, 1984. It is unknown if any wastes were generated as a result of the pond decontamination as details regarding the remediation of the pond were not provided in the reports submitted to the NJDEP. (Attachments F, L)

In May 1983 all of the buildings on site had been razed. Contaminated soils originating from various spills and soil staining on site were manifested off site on May 10, 1983 to S & W Waste of South Kearny, New Jersey. (Attachments G, H)

PART XII: ENFORCEMENT ACTIONS

1. **Type of enforcement activity:** Notice of Violation
Issuing agent: NJDEP, Division of Waste Management
Date: March 26, 1982
Description of violation: Based on an inspection of the facility by NJDEP personnel, it was determined that Royce engaged in disposal of solid waste on site without having first obtained Departmental approval of engineering design or registration.

Follow-up activity: The subject material was removed from the site within 30 days and verified by NJDEP personnel.
(Attachments D, E)

PART XIII: CONCLUSIONS AND RECOMMENDATIONS

Be sure to list each area of concern and state whether further remediation is required.

Available information indicates that remedial activities have been conducted on on-site soils and the discharge lagoon (lake) prior to the construction of housing units in 1983 and 1984. Extensive soil and sediment sampling has been conducted at the site which revealed zinc contamination above current NJDEPE soil cleanup criteria at two locations were the process building once existed. It is unknown if these areas were remediated or if the high levels of zinc were attributable to residual zinc powders.

Surface water samples collected at the site have displayed low levels of contamination, however, surface water no longer exists at the site as all pits, surface impoundments and the lake have been removed or filled. Since no areas of concern have been identified at this site, no further action is recommended at this time.

Submitted by: David Dibblee
Title: HSMS IV
NJDEPE, Division of Publicly Funded Site Remediation,
Office of Site Assessment
Date: July 3, 1994

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PART XIV: POTENTIALLY RESPONSIBLE PARTIES

<u>NAME</u>	<u>OWNER/OPERATOR/ KNOWN DISCHARGER</u>	<u>CURRENT ADDRESS</u>
Royce Chemical Co.	operator/known discharger	unknown

HAZARDOUS WASTE INVESTIGATION

HW/EF 02-48

Inspector: Alphonse Iannuzzi, Jr. Date: 3/26/82

Location: Royce Chemical Co., Inc. (Royce Industries, Inc.)

St: 17 Carlton Ave.

Property owner: Carlton Hill Construction Co.
P. O. Box 38
E. Rutherford

Town: East Rutherford

County: Bergen

Lot: 3A

Block: 24

Origin of Complaint:

Complaint: Obtain details for removal of waste off site, check to see if facility is an illegal TSDF, and do a RCRA generator inspection

Findings:

On 3/26/82 an investigation and RCRA generator inspection was performed at Royce Chemical at the above address. David Royce, Plant Manager, and Jay Royce, Vice President, were contacted and supplied all pertinent information.

Royce recently had all of its major assets bought out by Virginia Chemical, Portsmouth, VA on 10/1/81. On 2/12/82 Virginia Chem. made the decision to close down manufacturing operations. Mr. D. Royce stated that this was due to structural defects in Royce's old process building. Royce Chemical has also recently changed its name to Royce Industries, Inc. There is another Royce Industries plant in Newark, NJ. This plant was not bought out by Virginia Chemical. Mr. D. Royce stated that Royce is presently in the process of removing all materials of a chemical nature off of its property (i.e., products and raw materials).

Mr. D. Royce stated that he used to be maintenance manager for Royce but is presently hired as plant manager for Virginia Chem.

Processes

According to Mr. D. Royce, when in operation, Royce used to manufacture only four products. These products were: 1) sodiumhydrosulfite, 2) zinc oxide, 3) sodium sulfoxalate formaldehyde, and 4) zinc sulfoxalate formaldehyde. These products were used in the manufacturing of processes for the textile and rubber industries.

The following are raw materials used in manufacturing the products: 1) for sodiumhydrosulfite - zinc powder, sulfur dioxide, salt (NaCl), and sodium ash, 2) for zinc oxide - zinc carbonate (carbonate was burned off to form ZnO), 3) for sodium sulfoxalate - zinc powder, sulfur dioxide and formaldehyde, and 4) for zinc sulfoxalate formaldehyde - zinc powder, sulfur dioxide, formaldehyde and caustic soda. The raw material zinc powder used to be received from Royce Chemical in Newark by truck and other raw materials were received in bulk by railcar. Mr. D. Royce stated that all of the materials manufactured were basically made through mixing, filtering, and drying processes.

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ATTACHMENT 02
TIERRA-B-012907

Wastes

Mr. D. Royce stated that when Royce was operating, they did not produce any chemical waste from their processes. Mr. J. Royce stated that Royce used to recycle all of their waste on site by reusing in their products. Mr. D. Royce stated that Royce used to have a process waste discharged to the Passaic Valley Sewage Commission (PVSC), Wilson Ave., Newark. Mr. D. Royce did not know exactly what this discharge contained and said that the person who would know was not on site during the inspection. Mr. D. Royce stated that Royce had a permit from PVSC for their discharge and that PVSC had visited the plant and required them to put in 24 hour samplers. This permit was not reviewed during the inspection.

Mr. D. Royce stated that all spillage was put into drums and stored and most of it was reworked. Some of this material was not reworked but still on site due to the plant's closing. Mr. D. Royce stated that this material is a combination of zinc oxide and zinc carbonate.

When asked why Royce registered as a RCRA generator, Mr. J. Royce stated that this was due to covering Royce in the event that a hazardous waste was produced.

Mr. D. Royce stated that the only chemical waste sent off site was eight 55 gallon drums of PCB waste. This material was contaminated soil generated by a transformer leaking onto soil. Mr. D. Royce stated that analysis of the contaminated soil indicated greater than 50 ppm PCB. Mr. D. Royce stated that he does not think that a manifest was used for the removal of this material that went to CECOS Intl., Inc., Niagara Falls, NY. He did not have a copy of analysis or any shipping document for this waste transfer. He stated that he would contact CECOS and obtain any shipping documents and mail them to the DEP. Mr. D. Royce stated that John Boccuzzi of CECOS was contacted (609-983-6662).

Mr. D. Royce stated that Royce used to change the oil in their transformers every two years. He stated that five 55 gallon drums of this oil was recently (2 months ago) pumped out by Ned's Waste Oil, Newton, NJ. A manifest was not used to document the removal of this waste and Mr. D. Royce did not know where this material was disposed. Review of five analyses that Mr. D. Royce stated was for these drums indicated a PCB concentration of less than 0.5 ppb.

Materials removed

Since closing, Royce has had most of its raw materials and products removed off site. A large quantity of material has been sent to Royce Industries in Newark. Such materials as sodium hydroxide ash, salt, and zinc powder were sent there.

Some methanol and sodium hydroxide solution was removed by Virginia Chemical to Virginia Chemicals, Leeds, SC facility. The methanol was used to wash the sodium hydrosulfite. Mr. J. Royce stated that spent methanol was reclaimed by distillation on site and resulting still bottoms were discharged to the PVSC.

Approximately 1,000 gallons of anhydrous ammonia was sent to USS AgriChem, South Hackensack, NJ (472-8008) without a shipping document. This material was used for cooling reactions (non-contact). AgriChem was a supplier of ammonia to Royce when it operated. AgriChem was paid to remove this material.

Four dump truck loads (approx. 40,000 lbs. each) of mixed zinc carbonate and zinc oxide were sent to Madison Industries, Old Bridge, NJ. piled

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TIERRA-B-012908

material stored in drums that Royce had intended to reuse. Mr. J. Royce stated that this material is sold for approximately three cents per pound (\$60/ton) and is not a waste. A copy of a 3/24/82 shipping document indicating "1 trailer zinc residue" to Madison is attached to this report. Mr. J. Royce does not want Madison contacted due to the value of this material decreasing and would like this document to be held as confidential information.

According to Mr. J. Royce, one truck load of mixed zinc compounds (carbonate and oxide) was sent to St. Joe Minerals & Resources, Monaca, PA, approximately two weeks ago.

Mr. D. Royce stated that all materials removed off site were either intended to be reused by the receiving company or he did not know what the intended use was.

Materials presently on site

According to Mr. D. Royce, the following approximates of materials are on site:

1. 15 to 20 dump truck loads of zinc carbonate, zinc oxide mixture in 1,000 drums in rear of facility.
2. 20,000 gallons of zinc slurry inside of two slurry tanks (approx. one lb. zinc/gallon).
3. 20,000 gallons of zinc slurry in a cement slurry pit and two catch basins. Slurry pit was used to slurry scrubber material from kiln that converted $ZnCO_3$ to ZnO .
4. 3,000 gallons of formaldehyde in tank inside of process building. Royce is trying to sell this material.
5. 2,000 gallons of sodium hydroxide solution sold to Linden Chlorine and removed during the inspection.

Royce is having a local hauler, Fred Heyrich (address was not obtained), pumping out the slurry pit and the two catch basins into storage tanks. Mr. D. Royce stated that this material will probably be sold to New Jersey Zinc in Pennsylvania.

Inspection of facility

During the inspection, four 55 gallon metal drums of waste compressor oil were noted on the bottom floor of building #2. Mr. D. Royce stated that Ned's Waste Oil will probably remove this material. Mr. D. Royce was told that Royce should use a manifest for the removal of this material.

Throughout the process building, a series of troughs were noted that Mr. Royce stated emptied into the PVSC. Some flow was noted going to the sewer. Mr. Royce stated that the 24 hour composite samplers are not running.

The bottom floor of building #1 was covered with a white powder. Approximately 50 drums (35 gallon) containing a white solid were noted inside building #1 on the bottom floor. Mr. Royce stated that this material and the white powder was a zinc powder and will be washed into the sanitary sewer.

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ATTACH-TIERRA-B-012909 ¹⁵

The zinc slurry cement pit is located outside of the process building. A white sludge-like solid was noted on the asphalt covering a large area around this pit. Mr. D. Royce stated that this material will be washed into the slurry pit.

During the inspection, a Y & T Trucking, Inc. (48 Pollock Ave., Jersey City, NJ) tank trailer was picking up a shipment of sodium hydroxide solution. The shipping document, #1304, stated that 4,000 gallons of caustic soda will be removed to Linden Chlorine Corp., Linden, NJ.

A black oily sludge was noted next to unused subsurface fuel oil tanks (approx. 20' x 10') in the rear lot of the facility. An oil spill, approx. 20' x 15', was noted under old horizontal railroad car tanks in rear lot of facility.

The rear eastern section of the lot contained what Mr. D. Royce estimated as 1,000 drums of mixed zinc compounds. Not one of these drums were covered. Most of the drums were rusted through the outside of the container so that the contents inside of the containers could be seen. The drums were stacked in no apparent order and many were leaning on other drums. These drums were stored on weathered asphalt near a drainage trough and a pond which Royce used to use for cooling water. Mr. D. Royce stated that these drums were stored on site for approx. one to two years.

A pile, approx. 30' x 20' x 4' high, of a white and grey solid was noted on weathered asphalt in the rear lot. Workers were emptying the drums into this pile. Mr. D. Royce stated that this is the material that will be removed to Madison Industries.

Two SCA Services rolloffs (933-9500) were noted on site. These rolloffs contained only paper, empty fiber drums, and domestic garbage.

Mr. Royce showed me the area where a transformer had leaked and resulted in the disposal of PCB contaminated soil. There were three transformers inside an approx. 3" cement diked area. Inside of the dike was a drain that led to the PVSC treatment plant.

General housekeeping and storage practices were poor and inadequate.

Additional comments

During the inspection, Mr. D. Royce had stated that Royce Industries (not Virginia Chemical) operates a small one room warehouse across from this site on 2 Morton St., East Rutherford. This facility makes vat dyes for textiles. Only one man works at this plant. Mr. D. Royce stated that this inspector could not gain access to this facility due to not having a key. Mr. D. Royce stated that this is a section of Passaic Color & Chemicals Corp., Passaic, NJ which is a subsidiary of Royce. He stated that this plant does not generate any chemical wastes, discharge any waste to the sewer, or discharge any cooling water to a receiving body of water.

Both Dave and Jay Royce stated that all chemical materials will be removed by the end of the summer.

KBN000076

ATTACHMENT D6
TIERRA-B-012910

Royce Chemical Co., Inc. - 3/26/82
page 5

Samples/photos

No samples were taken during the inspection. Six photographs of poor housekeeping and drum storage conditions were taken.

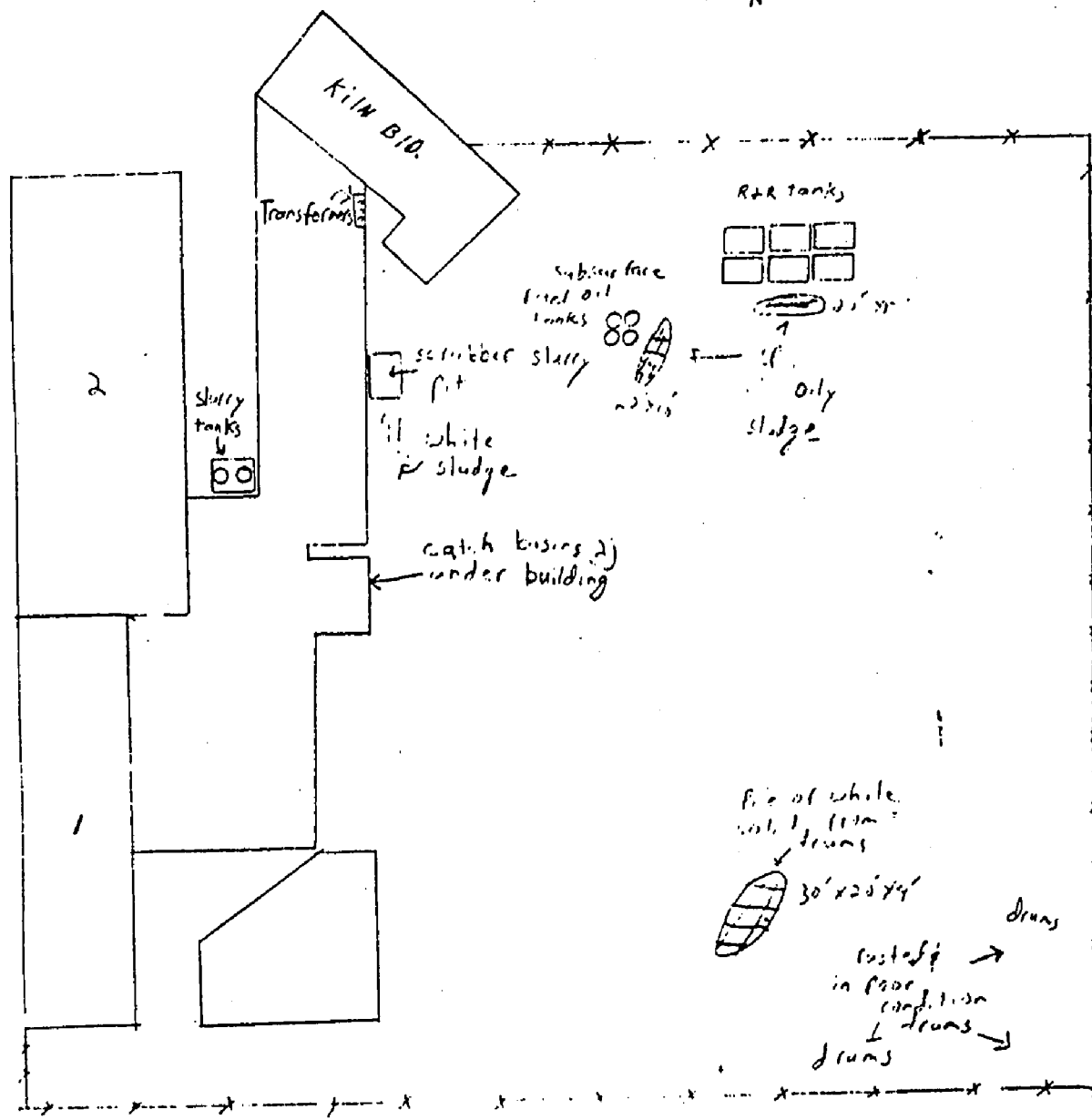
Synopsis

Royce Chemical was a manufacturer of four products used in the textile and rubber industry. The company's assets were recently bought by Virginia Chemical and the plant's manufacturing was shut down on 2/12/82. The facility is in the process of removing materials left on site most of which is clean-up material containing zinc compounds stored in poor condition open top drums for long periods of time. Royce is selling this material and claims that it is not a waste.

KBN000077

C2-48

CARRINGTON AVE.



E. Rutherford 3-26-22
H. Egan
not to scale

KBN000078

D8
ATTACHMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

NOV - 9 2005

**GENERAL NOTICE LETTER
URGENT LEGAL MATTER
PROMPT REPLY NECESSARY
CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

Albert Royce III, President
Royce Associates
366 N. Broadway, Ste. 400
Jericho, NY 11753

RE: Diamond Alkali Superfund Site
Notice of Potential Liability for
Response Actions in the Lower Passaic River Study Area, New Jersey

Dear Mr. Royce:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release and/or threatened release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9601 et seq. Accordingly, EPA is seeking your cooperation in an innovative approach to environmental remediation and restoration activities for the Lower Passaic River.

EPA has documented the release or threatened release of hazardous substances, pollutants and contaminants into the six-mile stretch of the river, known as the Passaic River Study Area, which is part of the Diamond Alkali Superfund Site ("Site") located in Newark, New Jersey. Based on the results of previous CERCLA remedial investigation activities and other environmental studies, including a reconnaissance study of the Passaic River conducted by the United States Army Corps of Engineers ("USACE"), EPA has further determined that contaminated sediments and other potential sources of hazardous substances exist along the entire 17-mile tidal reach of the Lower Passaic River. Thus, EPA has decided to expand the area of study to include the entire Lower Passaic River and its tributaries from Dundee Dam to Newark Bay ("Lower Passaic River Study Area").

By this letter, EPA is notifying Royce Associates of its potential liability relating to the Site pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a). Under CERCLA, potentially responsible parties ("PRPs") include current and past owners and operators of a facility, as well as persons who arranged for the disposal or treatment of hazardous substances at the Site, or the transport of hazardous substances to the Site.

In recognition of our complementary roles, EPA has formed a partnership with USACE and the New Jersey Department of Transportation-Office of Maritime Resources ("OMR") ["the governmental partnership"] to identify and to address water quality improvement, remediation, and restoration opportunities in the 17-mile Lower Passaic River. This governmental partnership is consistent with a national Memorandum of Understanding ("MOU") executed on July 2, 2002 between EPA and USACE. This MOU calls for the two agencies to cooperate, where appropriate, on environmental remediation and restoration of degraded urban rivers and related resources. In agreeing to implement the MOU, the EPA and USACE will use their existing statutory and regulatory authorities in a coordinated manner. These authorities for EPA include CERCLA, the Clean Water Act, and the Resource Conservation and Recovery Act. The USACE's authority stems from the Water Resources Development Act ("WRDA"). WRDA allows for the use of some federal funds to pay for a portion of the USACE's approved projects related to ecosystem restoration.

For the first phase of the Lower Passaic River Restoration Project, the governmental partners are proceeding with an integrated five- to seven-year study to determine an appropriate remediation and restoration plan for the river. The study will involve investigation of environmental impacts and pollution sources, as well as evaluation of alternative actions, leading to recommendations of environmental remediation and restoration activities. The study is being conducted pursuant to CERCLA and WRDA.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were released from Royce Chemical Company's former facility located at 17 Carlton Avenue in East Rutherford, New Jersey, into the Lower Passaic River Study Area. Hazardous substances, pollutants and contaminants released from the facility into the river present a risk to the environment and the humans who may ingest contaminated fish and shellfish. Therefore, Royce Associates may be potentially liable for response costs which the government may incur relating to the study of the Lower Passaic River. In addition, responsible parties may be required to pay damages for injury to, destruction of, or loss of natural resources, including the cost of assessing such damages.

EPA is aware that the financial ability of some PRPs to contribute toward the payment of response costs at the Site may be substantially limited. If you believe, and can document, that you fall within that category, please inform Ms. Reddy and Mr. Hyatt in writing at the addresses identified in this letter. You will be asked to submit financial records including federal income tax returns as well as audited financial statements to substantiate such a claim.

Please note that, because EPA has a potential claim against you, you must include EPA as a creditor if you file for bankruptcy. You are also requested to preserve and retain any documents now in your Company's or its agents' possession or control, that relate in any manner to your facility or the Site or to the liability of any person under CERCLA for response actions or response costs at or in connection with the facility or the Site, regardless of any corporate document retention policy to the contrary.

Enclosed is a list of the other PRPs who have received Notice letters. This list represents EPA's findings on the identities of PRPs to date. We are continuing efforts to locate additional PRPs who have released hazardous substances, directly or indirectly, into the Lower Passaic River Study Area. Exclusion from the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the Site. Be advised that notice of your potential liability at the Site may be forwarded to all parties on this list as well as to the Natural Resource Trustees.

We request that you become a "cooperating party" for the Lower Passaic River Restoration Project. As a cooperating party, you, along with many other such parties, will be expected to fund the CERCLA study. Upon completion of the study, it is expected that CERCLA and WRDA processes will be used to identify the required remediation and restoration programs, as well as the assignment of remediation and restoration costs. At this time, the commitments of the cooperating parties will apply only to the study. For those who choose not to cooperate, EPA may apply the CERCLA enforcement process, pursuant to Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §9606(a) and §9607(a) and other laws.

You may become a cooperating party by participating in the Cooperating Parties Group ("Group") that has already formed to fund the CERCLA study portion of the Lower Passaic River Restoration Project.

We strongly encourage you to contact the Group to discuss your participation. You may do so by contacting:

William H. Hyatt, Esq.
Common Counsel for the Lower Passaic River Study Area Cooperating Parties Group
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Written notification should be provided to EPA and Mr. Hyatt documenting your intention to join the Group and settle with EPA no later than 30 calendar days from your receipt of this letter. The result of any agreement between EPA and your Company as part of the Group will need to be memorialized in an Administrative Order on Consent. EPA's written notification should be mailed to:

Kedari Reddy, Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
290 Broadway - 17th Floor
New York, New York 10007-1866

Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record files along with the Site file are located at EPA's Region 2 office located at 290 Broadway, New York, NY on the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record and/or the Site file for the Diamond Alkali Site, Passaic River.

As you may be aware, the Superfund Small Business Liability Relief and Brownfields Revitalization Act became effective on January 11, 2002. This Act contains several exemptions and defenses to CERCLA liability, which we suggest that all parties evaluate. You may obtain a copy of the law via the Internet at <http://www.epa.gov/swerosps/bf/sblbra.htm> and review EPA guidances regarding these exemptions at <http://www.epa.gov/compliance/resources/policies/cleanup/superfund>.

Inquiries by counsel or inquiries of a legal nature should be directed to Ms. Reddy at (212) 637-3106. Questions of a technical nature should be directed to Elizabeth Butler, Remedial Project Manager, at (212) 637-4396.

Sincerely yours,


Ray Basso, Strategic Integration Manager
Emergency and Remedial Response Division

Enclosure