ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK

PRELIMINARY SITE ASSESSMENT
TASK1

Niagara Frontier Transportation Authority Site
Site Number 932090
Town of Wheatfield, Niagara County

September 1991

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation

Michael J. O'Toole, Jr., P.E., Director

Prepared by:

Ecology and Environment Engineering, P.C.

SB-5342 D3423

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BUFFALO CORPORATE CENTER
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1. EXECUTIVE SUMMARY

The Niagara Frontier Transportation Authority (NFTA) site (Site I.D. No. 932090) is a 2.75-acre impounding reservoir located on the grounds of the Niagara Falls International Airport in the Town of Wheatfield, Niagara County, New York (see Figures 1-1 and 1-2). The site is owned by NFTA and receives stormwater and non-contact cooling water discharged by the Carborundum Abrasives Company (CAC) under SPDES permit number NY0001716 (Ref. 20). The reservoir exists as a settling basin for these discharges and it also receives surface runoff from NFTA property to the east-northeast.

While current discharge monitoring reports (DMRs) indicate SPDES permit compliances, monitoring results indicate that permit limitations have been exceeded on a number of occasions, especially for phenol, biochemical oxygen demand (BOD), and solids (Refs. 2, 14, 21, 22). On December 19, 1978, a tank on the roof of the Carborundum plant spilled up to 6,000 gallons of phenol (Refs. 2, 12, 13, 14). Phenol is a U-listed hazardous waste (U-188) according to 40 CFR 261.33(d). An estimated 10% of the spill drained to the impounding reservoir via a diversion sewer (Refs. 2, 12, 31). Cleanup measures were immediately undertaken by CAC and monitoring conducted on April 25, 1979 indicated phenol levels were below the SPDES permit limits (Refs. 2, 12, 13, 31). Occasional violations of other parameters including zinc were also noted.

CAC is located on Walmore Road, Wheatfield, New York and manufactures sandpaper and abrasive grain material using raw materials including phenol and phenolic resins (Ref. 16). Seven outfalls to the impounding reservoir originate on the CAC property (Refs. 29, 31). Two of these have been sealed off and no longer discharge to the pond. The remaining five are active 42-inch storm sewer outfalls each equipped with a v-notch weir. Water from the impounding reservoir discharges to a storm sewer that runs under NFTA property and enters Cayuga Creek approximately 750 feet north-northeast of the site (Refs. 2, 31).

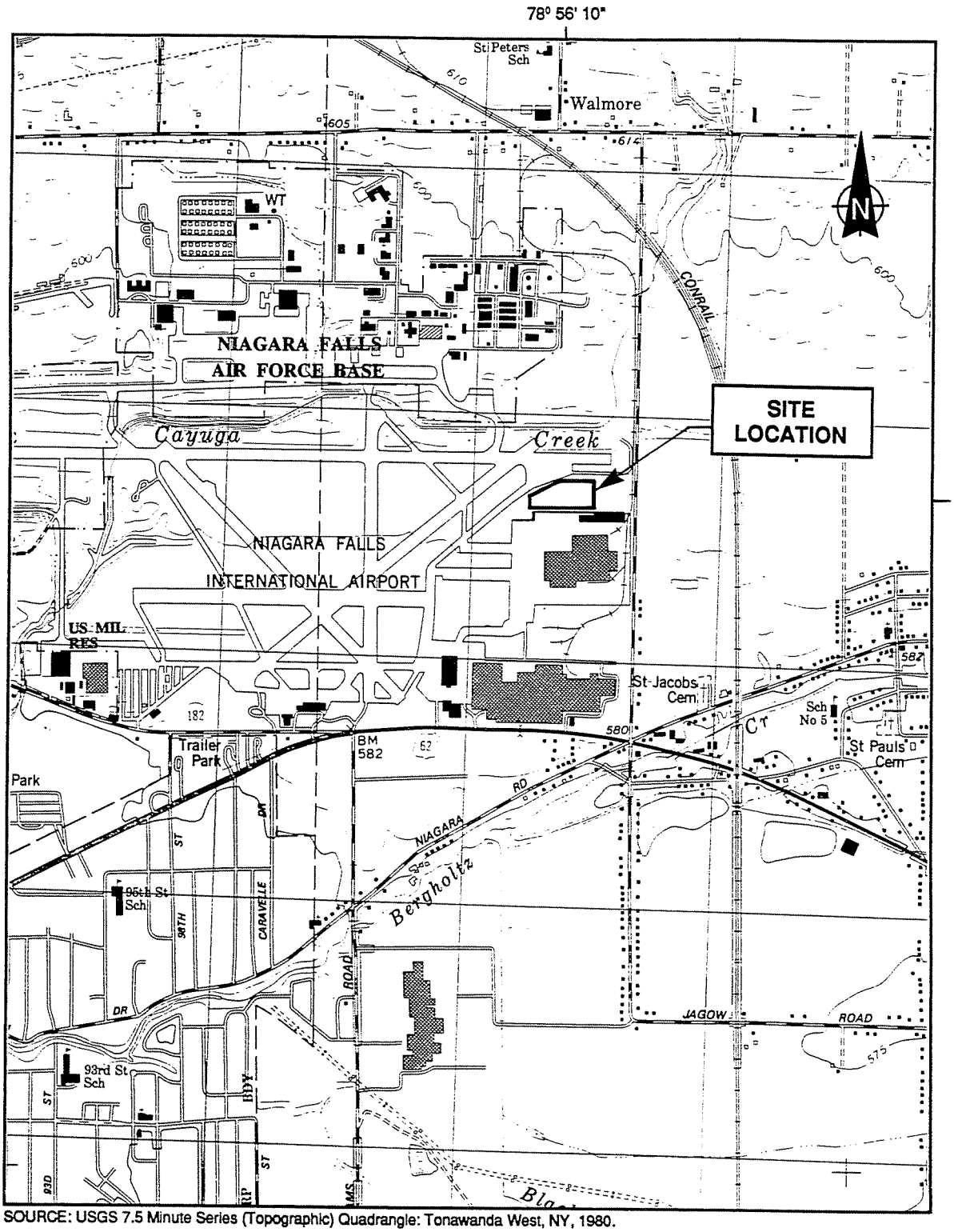
Groundwater is used as a drinking water source within 3 miles of the site (Ref. 31). A drinking water well and a shallow dug well used for fruit tree irrigation are located within 1 mile of the site. Both of these residences are supplied with public water (Ref. 35). Cayuga Creek, which accepts discharge water from the impounding reservoir, is a Class D stream and flows into the Niagara River. Water intakes for the City of Niagara Falls are approximately 7 miles downstream of the site (Ref. 31).

Ecology and Environment Engineering, P.C. (E & E) conducted a site inspection on April 30, 1991 to review present site conditions, and to confirm information from the Phase I investigation and preliminary site assessment data search. Recent disposal of solid wastes (concrete slabs) that partially filled the north side of the reservoir was observed on site. Water discharge flows were observed at the five active outfalls, one of which also discharged warm air with a strong chlorine smell. This outfall also produced HNu readings of 4,000 to 5,000 parts per million (ppm). Evidence of previous solid fill (i.e., concrete pieces) was also observed in many parts of the reservoir banks. Photographs taken during the site inspection are presented in Figure 1-3.

Available information is insufficient to determine whether the site poses a significant threat to human health or the environment. The documentation of hazardous waste disposal (phenol) was a spill in which 90% of the waste was either contained and cleaned up or was drained into

the sewage system. The remaining 10% of the phenol was released into the pond which is used by the Carborundum Company as a "settling tank" for their permitted discharge of an effluent containing phenol. The pond has been sampled for phenols in the sediment to determine if the phenol concentrations were at acceptable levels.

It is possible that because of the continual low-level loading of phenol that biodegradation has not occurred. E & E recommends further investigation including collection of bottom sediment and surface water samples prior to reclassification of the NFTA site.



SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle: Tonawanda West, NY, 1980.

SCALE

0 ½ 1 Mile

0 .5 1 Kilometer

Figure 1-1
LOCATION MAP
NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE

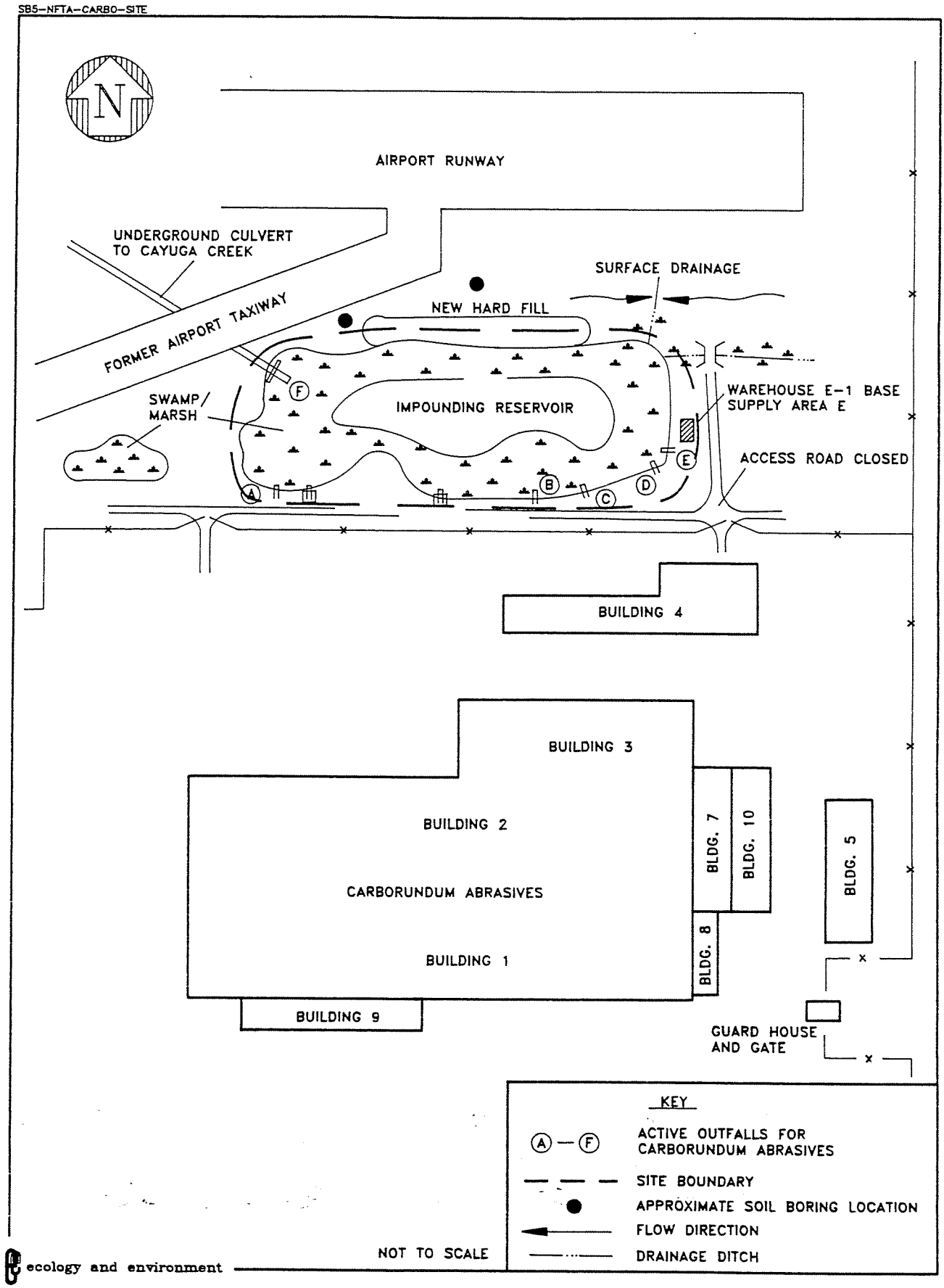


Figure 1-2 SITE MAP, NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE

Figure 1-3

PHOTOGRAPHIC LOG

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 9:30 Frame No.: 9
	Comments*: Standing on south side of pond, looking north, at third discharge pipe east (counting from west side of pond). Rusty liquid leading to the pond, but no visible trickle or flow. No HNu readings above background levels. This pipe is blocked off and non-flowing, according to G. McGee, Carborundum plant engineer.
	*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 9:35 Frame No.: 10

Comments*: Infall C, pipe approximately 3 feet in diameter. Strong flow of warm water with a strong chlorine smell. Warm air was emanating from this discharge pipe. HNu read 4,000-5,000 ppm above background level. Note bleached vegetation/grass under discharge.

*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 9:40 Frame No.: 11
	Comments*: Infall/discharge pipe D, approximately 3-foot diameter, discharges directly to ponded water. HNu read 4 ppm above background level. Fairly strong flow through v-notch weir.
	*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 9:45 Frame No.: 12
	Comments*: Infall/discharge pipe E, at south-east "corner" of pond. Strong flow through v-notch weir. No HNu reading above background level.

*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 9:50 Frame No.: 13
	Comments*: Standing over discharge pipe D looking north at pond at small island/mud with grass. Cleared drainage trench around pond's perimeter here, but not continuous around entire perimeter.
	*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN

Photographer: S. Lare Date: 5-1-91

Time: 9:58 Frame No.: 15

Comments*: Warehouse/shed on east side pond.

Photographed looking west at front of shed: ~35 feet x 15 feet. Inside: 10 unlabeled drums, storage of wood stakes, ladders, bricks, cords. Rusty drum visible outside building.

*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 10:05 Frame No.: 16
	Comments*: Bucket found near east bank of pond, behind (west of) shed. Inside: brown, hardened resin-type material with little chunks in it.
	*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 10:10 Frame No.: 17
	Comments*: Standing on east side of pond, looking west. Shows pond, and concrete slab-filled area (right of center) on north side of pond.
	*Comments to include location.

ecology and environment engineering, p.c.
PHOTOGRAPHIC RECORD

Client: NYSDEC	E & E Job No.: SB5340
Site: NFTA	
Camera: Make Olympus Infinity Jr.	SN
Lens Type	SN
	Photographer: S. Lare Date: 5-1-91
	Time: 10:15 Frame No.: 18
	Comments*: Standing at northeast "corner" of pond, looking west, at north bank of pond (filled with concrete slabs and gravel).

*Comments to include location.

47-15-25 (11/90)-9d

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

ADDITIONS/CHANGES TO REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

Original - BHSC
Copy - REGION
Copy - DEE
Copy - DOH
Copy - PREPARER

1. Site Name	2. Site Number	3. Town	4. County
NFTA	932090	Wheatfield	Niagara

5. Region	6. Classification	7. Activity
9	Current 2a /Proposed	[ ] Add [ ] Reclassify [ ] Delist [ ] Modify

8a. Describe location of site (attach USGS topographic map showing site location).
Site is a 2.75-acre pond-impounding reservoir on NFTA property that is used by Carborundum Abrasives for SPDES permit discharges of storm and non-contact cooling water. Site is topographically flat and receives surface runoff from the immediate area and the Carborundum plant property.
b. Quadrangle Tonawanda West c. Site latitude 43° 06' 10" Longitude 78° 56' 10" d. Tax Map Number 146.00

9a. Briefly describe the site (attach site plan showing disposal/sampling locations).
Site is a 2.75-acre pond-impounding reservoir on NFTA/airport property less than 400 feet from the east-west runway. The area immediately around the site is primarily industrial.

b. Area 2.75 acres c. EPA ID number NYD980654321 d. PA/SI [ ] Yes [ ] No

e. Completed: [X] Phase I [ ] Phase II [X] PSA [X] Sampling limited.

10. Briefly list the type and quantity of the hazardous waste and the dates that it was disposed of at this site.
December 19, 1978: 6,000 gallon liquid phenol spill, approximately 10% of which reached the reservoir. Sometime in 1985: NYSDEC Division of Water noted another less severe spill of unknown quantity of phenols. Numerous violations of SPDES permit limitations for phenol were noted through December 1990.

11a. Summarized sampling data attached

[ ] Air [ ] Groundwater [X] Surface Water [X] Soil [ ] Waste [ ] EP Tox [ ] TCLP [X] Sediment

b. List contravened parameters and values.
Phenols, in sediment up to 24,995 ppm, 1.67 mg/L in surface water

12. Site impact data

a. Nearest surface water: Distance NA ft. Direction on site Classification D

b. Nearest groundwater: Depth 10 ft. Flow direction Unknown [ ] Sole source [ ] Primary [ ] Principal

c. Nearest water supply: Distance 35,000 ft. Direction east to Niagara River Active [X] Yes [ ] No

d. Nearest building: Distance 400 ft. Direction south Use Carborundum Plant

e. Crops/livestock on site? [ ] Yes [X] No

f. Exposed hazardous waste? [ ] Yes [X] No

g. Controlled site access? [X] Yes [ ] No

h. Documented fish or wildlife mortality? [ ] Yes [X] No

i. Impact on special status fish or wildlife resource? [ ] Yes [X] No

j. Within a State Economic Development Zone? [ ] Yes [X] No

k. For Class 2A: Code _____ Health model score _____

l. For Class 2: Priority category _____

m. HRS Score NA

n. Significant threat [ ] Yes [X] No [ ] Unknown

13. Site owner's name	14. Address	15. Telephone Number
NFTA- A.J. Serianni	181 Ellicott Street, Buffalo, New York 14203	(716) 297-4494

16. Preparer
Scott Thorsell, Associate Chemist, Hydrogeologist Ecology and Environment Engineering, P.C.
Name, title, and organization

May 14, 1991
Date

Josephine H. Burton for Scott Thorsell
Signature

17. Approved

Name, title, and organization

Date

Signature

2. PURPOSE

Task 1 of the PSA, Data Records Search and Assessment, was conducted by Ecology and Environment Engineering, P.C. (E & E) under contract to the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract (Contract No. D002526).

Task 1 involves the search for proof of disposal of hazardous waste and proof of a significant threat to human health or the environment. Additional investigation may also be recommended.

The purpose of the PSA is to provide the information for NYSDEC to reclassify the site according to the following classifications:

- **Class 2.** Hazardous waste sites presenting a significant threat to the public health or the environment;
- **Class 3.** Hazardous waste sites not presenting a significant threat to the public health or the environment; and
- **Delist.** Sites where hazardous waste disposal cannot be documented.

The NFTA site is currently classified as 2a (and not the above classifications) because there is insufficient information to document hazardous waste disposal and/or assess the significance of potential risks to public health or the environment.

3. SCOPE OF WORK

Task 1 of the PSA of the NFTA site comprised several interrelated tasks as follows.

File Reviews and Data Search

An extensive data search was conducted utilizing state, county, municipal, and site-specific sources. This information was compiled from existing data as well as new sources, and a preliminary characterization of the site was developed after review.

Sources contacted during the PSA are listed in Table 3-1.

Site Inspection

A site inspection was conducted on April 30, 1991 to assess the surface characterization of the site and vicinity; observe evidence, if any, of hazardous substances or wastes present; photograph the site; conduct preliminary air monitoring using an HNu photoionization detector and a radiation meter; and confirm information obtained from the Phase I investigation and additional data search. During the 1.5-hour site inspection, no readings above background level were noted on any instruments with the exception of HNu readings at two locations. A United States Environmental Protection Agency (EPA) Site Inspection Report (EPA Form 2070-13) form and the NYSDEC Additions/Changes to the Registry of Inactive Hazardous Waste Disposal Sites form were completed following the site inspection.

The site inspection was conducted by the following personnel:

Name	Title	Affiliation
Scott Thorsell	Associate Chemist, Hydrogeologist	E & E
Sandra Lare	Environmental Planner	E & E
Jack Schumate		NFTA

Mr. Schumate remained in his vehicle and observed as E & E personnel performed the actual site walkover.

Immediately observable from the former taxiway was an area of fill along the northern edge of the pond measuring approximately 30 feet by 225 feet, with an estimated depth of approximately 4 feet. The fill material was primarily concrete slab which Mr. Schumate indicated was former runway or taxiway materials recently removed from a nearby location. This was done to fill in the low-lying areas near the runway and has obviously reduced the area of the impounding reservoir and surrounding wetlands. In one area of this loose fill material, HNu readings were observed to be approximately 6 ppm above background level, but this may have been due to natural gases and moisture emanating from the original wetlands area below.

Reeds and cattails were growing in most areas of the shallow pond. Mr. Gerald McGee of CAC reported that the pond is 2 feet deep and is unlined. Muskrat dens were also observed. The banks of the pond were mostly heavily vegetated with low-lying scrub, with access to the water available primarily in the areas of the outfall pipes.

Fill materials were evident, protruding around most of the pond's perimeter. These consisted primarily of broken concrete and boulders. A few empty, rusted barrels were noticed near the storage shed at the eastern end of the pond/reservoir but no HNu reading was observed. The shed is located on NFTA property. Several attempts were made to contact

Mr. Schumate to determine ownership of the shed and drums but he did not respond. Also in that area was a blue 5-gallon pail containing a residual dried glue-like material. However, there appeared to be no real environmental threat from this material.

Seven outfalls from CAC were noticed leading to the reservoir and one drainage pipe was discovered leading northwest under the runway. Of the seven outfalls, two were found to have virtually no flow and were half-covered with soil. One of these two, however, was observed to produce a small trickle of leachate-appearing water that left surrounding soils and sediments stained red with iron oxides. No HNu reading above background level was observed.

Water discharge flows were noted for the five active outfalls. Flows varied from an estimated less than 1 gallon/minute to greater than 10 gallons/minute. Outfall C was noticed to produce a strong pool or chlorine-like odor and HNu readings ranged from 4,000 to 5,000 ppm. Air emanating from the outfall also felt warm. Outfall flows were greatest at discharge points D and E (see Figure 1-2).

Table 3-1

SOURCES CONTACTED FOR THE NYSDEC PSA NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE TOWN OF WHEATFIELD, NEW YORK

Carborundum Abrasives Company 6600 Walmore Road Niagara Falls, New York 14304 Contact: Gerald F. McGee Telephone: 716/695-8126 Date: April 30, 1991 Information Gathered: Interview and file search.
New York State Department of Environmental Conservation Division of Hazardous and Solid Waste 584 Delaware Avenue Buffalo, New York 14202 Contact: Abul Barkat Telephone: 716/847-4585 Date: May 9, 1991 Information Gathered: Interview and file search.
New York State Department of Environmental Conservation Division of Water 600 Delaware Avenue Buffalo, New York 14202 Contact: David Leemhuis Telephone Number: 716/847-4590 Date: May 9, 1991 Information Gathered: Interview and file search.
New York State Department of Environmental Conservation Bureau of Hazardous Site Control 50 Wolf Road Albany, New York 12233 Contact: Valerie Lauzze Telephone: 518/457-9538 Date: April 17-18, 1991 Information Gathered: File search.
New York State Department of Health Bureau of Environmental Exposure 2 University Plaza Room 205 Albany, New York 12203 Contact: Andy Carlson Telephone: 518/458-6306 Date: April 16-17, 1991 Information Gathered: File search.

Table 3-1

SOURCES CONTACTED FOR THE NYSDEC PSA NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE TOWN OF WHEATFIELD, NEW YORK

Niagara County Environmental Management Council County Courthouse, Lockport, New York 14094 Contact: Joann Ellsworth Telephone: 716/439-6170 Date: April 25, 1991 Information: Information on land use, wetlands, flood plains, zoning, waterlines.
Niagara County Department of Health 10th and Falls Streets Niagara Falls, New York Contact: Paul Dicky Telephone: 716/284-3128 Date: April 25, 1991 Information Gathered: File information.
Niagara County Highway Department 225 South Niagara Street Lockport, New York 14094 Contact: Gary Hinton Telephone: 716/439-6066 Date: April 26, 1991 Information Gathered: Aerial photographs from 1938, 1951, 1955, 1966, 1982.
Niagara County Department of Planning County Office Building Lockport, New York Contact: Rick Seekins Telephone: 716/439-6033 Date: April 25, 1991 Information Gathered: 1990 Census data.
Niagara County Real Property Tax Director County Courthouse, Lockport, New York 14094 Contact: Hazel Hasley Telephone: 716/439-6111 Date: April 25, 1991 Information Gathered: Tax maps and site ownership history.

Table 3-1

SOURCES CONTACTED FOR THE NYSDEC PSA NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE TOWN OF WHEATFIELD, NEW YORK

United States Department of Agriculture Soil Conservation Service
Cornell Cooperative Extension
4487 Lake Avenue
Lockport, New York 14094
Contact: Darcy Tone
Telephone: 716/434-4949
Date: April 30, 1991
Information Gathered: Soil survey, agriculture districts, and prime farmland.

4. SITE ASSESSMENT

4.1 SITE HISTORY

The NFTA site (Site I.D. No. 932090) is a 2.75-acre impounding reservoir located on the grounds of the Niagara Falls International Airport in the Town of Wheatfield, Niagara County, New York. The site is owned by NFTA and receives stormwater and non-contact cooling water discharged by the Carborundum Abrasives Company (CAC) under SPDES permit number NY0001716 (Ref. 20). The reservoir exists as a settling basin for these discharges and it also receives surface runoff from NFTA property to the east-northeast.

CAC is located on Walmore Road, Wheatfield, New York and manufactures sandpaper and abrasive grain material using raw materials including phenol and phenolic resins (Ref. 16). Seven outfalls to the impounding reservoir originate on the CAC property (Refs. 29, 31). Two of these have been sealed off and no longer discharge to the pond. The remaining five are active 42-inch storm sewer outfalls each equipped with a v-notch weir. Water from the impounding reservoir discharges to a storm sewer that runs under NFTA property and enters Cayuga Creek approximately 750 feet north-northeast of the site (Refs. 2, 31).

While current discharge monitoring reports (DMRs) indicate SPDES permit compliances, monitoring results indicate that permit limitations have been exceeded on a number of occasions, especially for phenol, biochemical oxygen demand (BOD), and solids (Refs. 2, 14, 21, 22). On December 19,

1978, a tank on the roof of the Carborundum plant spilled up to 6,000 gallons of phenol (Refs. 2, 12, 13, 14). Phenol is a U-listed hazardous waste (U-188) according to 6 NYCRR Part 371. An estimated 10% of the spill drained to the impounding reservoir via a diversion sewer (Refs. 2, 12, 31). Reportedly, none of the spilled material came in contact with the ground surface (Ref. 33). Cleanup measures were immediately undertaken by CAC and monitoring conducted on April 25, 1979 indicated phenol levels were below the SPDES permit limits (Refs. 2, 12, 13, 31). Niagara County Health Department personnel conducted a site inspection in January 1982. No visible signs of contamination were detected and ducks were observed congregating in the pond (Ref. 2). Recra Research, Inc., personnel inspected the site on November 26, 1985 and noted numerous ducks and muskrat lodges, and abundant aquatic vegetation (Ref. 31).

NYSDEC Division of Water noted another phenol spill of undetermined quantity in 1985 (Ref. 24). Letters from CAC indicate this spill may be related to storage and consolidation of drums of phenol that had leaked (Refs. 21, 22). Some of this material may have come in contact with the ground (Ref. 33), and entered the sanitary sewer. No sampling data exist for this period except the bimonthly monitoring samples for SPDES, which indicate high levels of phenols.

4.2 SITE TOPOGRAPHY

The site is located on the Huron Plain of the Central Lowland physiographic province. The plain is nearly level and slopes gently westward from an altitude of approximately 600 feet above mean sea level (MSL) on the east to 570 feet above MSL along the Niagara River. The low-lying plain is broken in places by low, narrow, irregular ridges trending northeast-southwest. They extend up to 2 miles in length and are 20 to 50 feet above the general land surface (Ref. 30).

The ground surface over the site, with the exception of the reservoir banks, is flat with a slope of less than 1%. The elevation of the site is

approximately 587 feet above MSL (see Figure 1-1). In some areas, the banks of the reservoir are generally steep and heavily vegetated with the exception of the outfall location areas. Solid fill material such as concrete, bricks, and boulders are evident in many areas exhibiting steeper banks, particularly along the north bank which recently has been loosely filled.

As discussed in Sections 1 and 4.1, NFTA and CAC properties immediately surround the site. The Niagara Falls Air Force Base lies approximately 0.5 mile northwest of the site and a Town of Wheatfield residential community is located less than 1 mile to the east-southeast. The City of Niagara Falls also is located less than 1 mile southwest of the site.

The nearest off-site building is the CAC plant, approximately 400 feet to the south. Both the airport and the CAC plant property are fenced on all sides, and metal bars are placed across storm drains to prevent unauthorized entry. Access to the site is controlled primarily by the airport (Ref. 31 and Appendix C).

The airport and surrounding topography is generally flat providing for poor surface drainage without the employment of man-made drainage systems. Drainage ditches from the northeast and drain sewers from the CAC plant property deliver stormwater from these areas to the impounding reservoir (Refs. 15, 20, 29, 31). Water from the reservoir enters Cayuga Creek to the north-northwest through a storm sewer beneath the airport runways (Refs. 2, 15, 20, 31). Stormwater runoff from the airport also enters this storm sewer (Ref. 2).

Cayuga Creek enters the Niagara River approximately 4 miles downstream of the impounding reservoir (Refs. 1, 2, 31). The City of Niagara Falls municipal water intakes are located in the Niagara River approximately 3 miles downstream and across the river from the confluence with Cayuga Creek (Refs. 2, 7). Cayuga Creek is not used for drinking water, industry, or primary contact recreation (Refs. 2, 8, 9).

The 100-year floodplain for Cayuga Creek lies less than 500 feet north of the site (Ref. 11) and the site itself is located in Zone B of the Flood

Insurance Rate Map dated July 16, 1981 (Community Panel No. 360513 0001) prepared by the Federal Emergency Management Agency (FEMA). Zone B represents areas of the 500-year floodplain and has a 0.2% chance of flooding in any given year.

Other surface drainage features in the area include the Niagara River, which also runs 2 miles south of the site; Bergholtz Creek, 3,000 feet south of the site; and Cayuga Creek, 750 feet north of the site (Ref. 1).

New York State-regulated wetlands TW-6, TW-26, and TW-4 are located less than 2 miles south of the site (Ref. 10). The impounding reservoir is a habitat that attracts and supports wildlife such as fish, water fowl, and muskrat (Ref. 31 and Appendix C). There are no known critical habitats of endangered species located within a 1-mile radius of the site (Ref. 10).

4.3 SITE HYDROLOGY

The bedrock underlying the NFTA site is part of the Lockport group. In this region, the Lockport is almost all dolostone. The formations are generally brownish-gray in color, medium to thick bedded, stylolitic, exhibiting parting (i.e., separations along planes), mineralized vugs, and poorly preserved fossils. The group is divided into four formations: Oak Orchard dolostone, Eramosa dolostone, Goat Island dolostone, and Gasport limestone from youngest to oldest, respectively. The Oak Orchard dolostone is approximately 120 feet thick and forms the cap rock to the American Falls. The Eramosa dolostone is approximately 15 feet thick, the Goat Island dolostone is approximately 17 to 26 feet thick, and the Gasport limestone is approximately 15 to 45 feet thick. The Eramosa and Goat Island dolostones are mined for crushed stone and asphalt filler, and the Gasport limestone has been used as building stone (Ref. 32).

Soils in the vicinity of the NFTA site are listed as Lakemont and Odessa silty clay loams (Ref. 30), although landfilling of solid materials has occurred as mentioned in Section 4.2. These nearly level soils generally

occupy flat-lying areas of glacial lake basins and drainageways of slackwater areas that pond. These soils are generally poorly to very poorly drained and have a medium-fine to fine textured subsoil. Permeability is moderate in the surface layer and moderately slow to slow in the subsoil or substratum (Ref. 30). A perched water table or ponded water can be common during seasonally or other excessively wet periods. Test borings drilled by the United States Geological Survey (USGS) in 1982 just north of the reservoir confirmed the presence of low permeability clay soils and subsoils in this area. The soils displayed a brown to reddish color and produced a saturated zone yield too low to warrant the installation of monitoring wells (Ref. 4).

The areas immediately surrounding the site are airport runways, gravel roadways, or the CAC tarmac indicating that area soils have been largely disturbed. Therefore, sediments in the reservoir probably contain settled solids from these drained areas as well as from the CAC plant storm and cooling water discharges.

Groundwater flow principally occurs in a widespread water-bearing zone of fractured bedrock (weathered zone) that exists in the upper 10 to 15 feet of the Lockport dolomite group. This zone conforms to the upper surface of the bedrock and is generally hydraulically connected to the overlying unconsolidated deposits (Ref. 5).

Fractures and bedding-plane joints are the primary water-bearing openings in the weathered zone and lower bedrock layers. Groundwater movement occurs within these joints and typically widens hydraulically connected flow paths due to solution of the rock by groundwater flow. Additionally, water-bearing zones or connections occur where gypsum has been dissolved out by groundwater movement (Ref. 5).

The coefficient of transmissivity for the Lockport dolomite group ranges from 300 to 2,300 gallons per day per foot (Ref. 5). Values for the natural unconsolidated surface deposits are much lower, causing seasonally high water tables, perched water zones, and low-yield saturated zones. Groundwater movement for unconsolidated aquifers is generally toward

major surface water bodies and along a downward topographic slope (Ref. 4). Groundwater movement for the NFTA site is believed to be to the north toward Cayuga Creek (Ref. 4).

4.4 CONTAMINATION ASSESSMENT

Bimonthly discharge monitoring reports (DMRs) were available for review at NYSDEC Region 9, Division of Water for the years 1984 to the present for CAC SPDES permits numbered NY-0001716 (Refs. 15, 20). The current permit was issued December 1, 1990 and expires December 1, 1995. Permit limitations for several parameters have been changed in the current permit to reflect total loading to the impounding reservoir rather than composite sample concentrations. Limits for phenol have been set at 0.2 pounds per day under the current permit (Ref. 20).

A review of DMRs for February 1989 to March 1991 revealed that phenol discharge limits were exceeded almost consistently for the entire period until the current permit was issued in December 1991 (Ref. 34). Occasional minor violations of other parameters including zinc were also noted but were generally related to specific incidents and not chronic problems.

Other surface water data collected for this site include those collected in relation to the 1978 phenol spill. Outfall discharges and surface water samples were tested by CAC until levels of phenols decreased to 0.1 ppm phenol at the point leaving the reservoir to Cayuga Creek (Refs. 12, 13).

Site investigations by USGS in 1982 involved the advancement of two test borings on the north side of the reservoir, between the taxiway and the reservoir. The yield of groundwater from the saturated zone in each borehole, however, was too low to warrant the installation of monitoring wells (Ref. 4). Therefore, no groundwater analytical results exist for this site.

Two subsurface soil samples were collected in the 1982 USGS investigation and analyzed for organic compounds. Samples were collected from 13 to 14 feet and 14 to 15 feet below ground surface on the north side of the impounding reservoir. One sample was found to contain three priority pollutant phthalates below 40 μg/kg and two nonpriority pollutants (acetone and bis(2-ethylbutyl)phthalate) (Ref. 4).

Sediment sampling in the reservoir was conducted relative to the 1978 phenol spill (Ref. 13) and again in 1989 by NYSDEC (Ref. 24). After the spill, initial sediment sample results for phenols indicated 24,995 ppm on January 10, 1979. Levels of phenols were observed to decline to 6.99 ppm by April 4, 1979 according to CAC investigations (Ref. 13). NYSDEC sampling of sediments in 1989 indicated levels of total recoverable phenols at 1.8, 9.3, and 16.3 ppm for selected sediment locations near the banks of the reservoir (Ref. 24).

5. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

5.1 HAZARDOUS WASTE DEPOSITION

A spill of an estimated 6,000 gallons of phenolic liquid occurred on the roof of CAC Building 4 on December 19, 1978 (Refs. 2, 12, 13, 14). It was determined that approximately 10% of the spilled material migrated to the impounding reservoir via storm drains and a diversion sewer (Refs. 2, 12). Phenol is a U-listed hazardous waste (U-188) according to 6 NYCRR Part 371; therefore, hazardous waste has been disposed of at this site. The remainder was either contained on site or entered sanitary sewer drains and was received by the Niagara County Wastewater Treatment Plant. CAC immediately undertook cleanup measures and periodic monitoring of sediment, pond water, and discharge water was conducted. By April 25, 1979 water samples collected by CAC indicated that levels of phenol in the discharge water from the reservoir had returned to levels below the 1.4 pounds/day allowed by the SPDES permit (Refs. 2, 12, 13).

Corresponding sediment samples also indicated a decline of phenol contamination from a level of 24,995 ppm on January 10, 1979 to 6.99 ppm on April 4, 1979 (Refs. 13, 24). Sampling of sediments by NYSDEC on October 12, 1989 indicate that levels of total phenols in reservoir sediments remain at levels between 1.8 and 16.3 ppm (Ref. 24).

Records reviewed at NYSDEC Division of Water indicate that another possible spill of unknown quantity occurred at CAC in 1985 (Refs. 21, 22, and 24). The impact of this spill is not known other than to say that

residual phenolic resins had spilled or leaked from either stored or scrapped drums, entered the storm sewer system, and caused both discoloration of discharge waters and phenol concentrations exceeding SPDES permit limitations.

No other documentation of hazardous waste deposition has been determined for this site. For current levels of phenol loading, as allowed under CAC's SPDES permit, CAC has initiated an ongoing investigation to determine sources and levels of phenol loading within individual drainline systems (Ref. 26).

5.2 SIGNIFICANT THREAT DETERMINATION

Studies have shown that without continuous low level loading phenols are not persistent in the environment. Natural chemical degradation of phenols occurs within 26 days and biodegradation of 5 to 10 ppm concentrations of phenol in water can be 95% to 97% complete within 7 days (Ref. 28). Phenols also do not bioconcentrate (Ref. 27).

The EPA has indicated that surface waters should be limited to a concentration of not more than 0 to 3 ppm of phenols, and a minimum risk has been determined for short-term exposures of humans to 100 ppm levels of phenol in drinking water (Ref. 28).

As no data exist for groundwater contamination, and surface water results (i.e., SPDES discharge monitoring reports) fall within permit limitations, no criteria exist to determine a significant threat to the water supply. Area residents are supplied by public water; however, private groundwater wells exist within 0.5 mile of the site (Refs. 18, 35).

There are no critical habitats of endangered species located within a 1-mile radius of the site (Ref. 10).

Exposure to the site is limited as site access is controlled by NFTA and the entire area is fenced off. Sewer drains are barred to prevent access. Opportunity for exposure exists only for NFTA or CAC personnel involved in site maintenance or SPDES permit sampling.

It is assumed that hazards due to potential fire or explosion are not a problem at this site.

Possible receptors exist for contaminated groundwater and reservoir sediments, other than adjacent to the shore, have not been tested. Additional investigation should be conducted in order to determine the potential threat to human health or the environment.

5.3 RECOMMENDATIONS

Concentrated phenols are the only documented hazardous substances on site. The documentation of hazardous waste disposal (phenol) was a spill in which 90% of the waste was either contained and cleaned up or was drained into the sewage system. The remaining 10% of the phenol was released into the pond which is used by the Carborundum Company as a "settling tank" for their permitted discharge of an effluent containing phenol. The pond has been sampled for phenols in the sediment to determine if the phenol concentrations were at acceptable levels. However, all of these samples were collected near shore.

Available information is not sufficient to make a significant threat determination.

Groundwater use in the area has been documented and reservoir sediments, other than those adjacent to the shore, have not been tested. It is possible, because of the continual low-level loading of Phenol into the reservoir, that biodegredation has not occurred.

E & E recommends that the NFTA site not be reclassified at this time. E & E recommends additional investigation including collection of bottom sediment and surface water samples, in order to determine if a significant threat to human health or the environment is posed by this site.

APPENDIX A
REFERENCES

NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE
REFERENCES

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3. Inactive Hazardous Waste Disposal Report, May 1991, New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Region 9.

4. Preliminary Evaluation of Chemical Migration to Groundwater and the Niagara River from Selected Waste Disposal Sites, March 1985, Environmental Protection Agency (905/4-85-001).

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7. New York State Atlas of Community Water System Sources, 1982, New York State Department of Health.

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22. Halliley, A.G., and G.F. McGee, July 21, 1987, Carborundum, written communication to New York State Department of Environmental Conservation concerning DMRs and phenol contamination problems.

23. Feron, Tom, May 5, 1986, New York State Department of Environmental Conservation, memorandum to Larry Clare, New York State Department of Conservation concerning site contamination and Recra Environmental Phase I report.

24. Barkat, A., October 5, 1990, New York State Department of Environmental Conservation, memorandum to J. Sciascia, New York State Department of Environmental Conservation.

25. Sciascia, J., October 9, 1990, New York State Department of Environmental Conservation, memorandum to Walter Demick.

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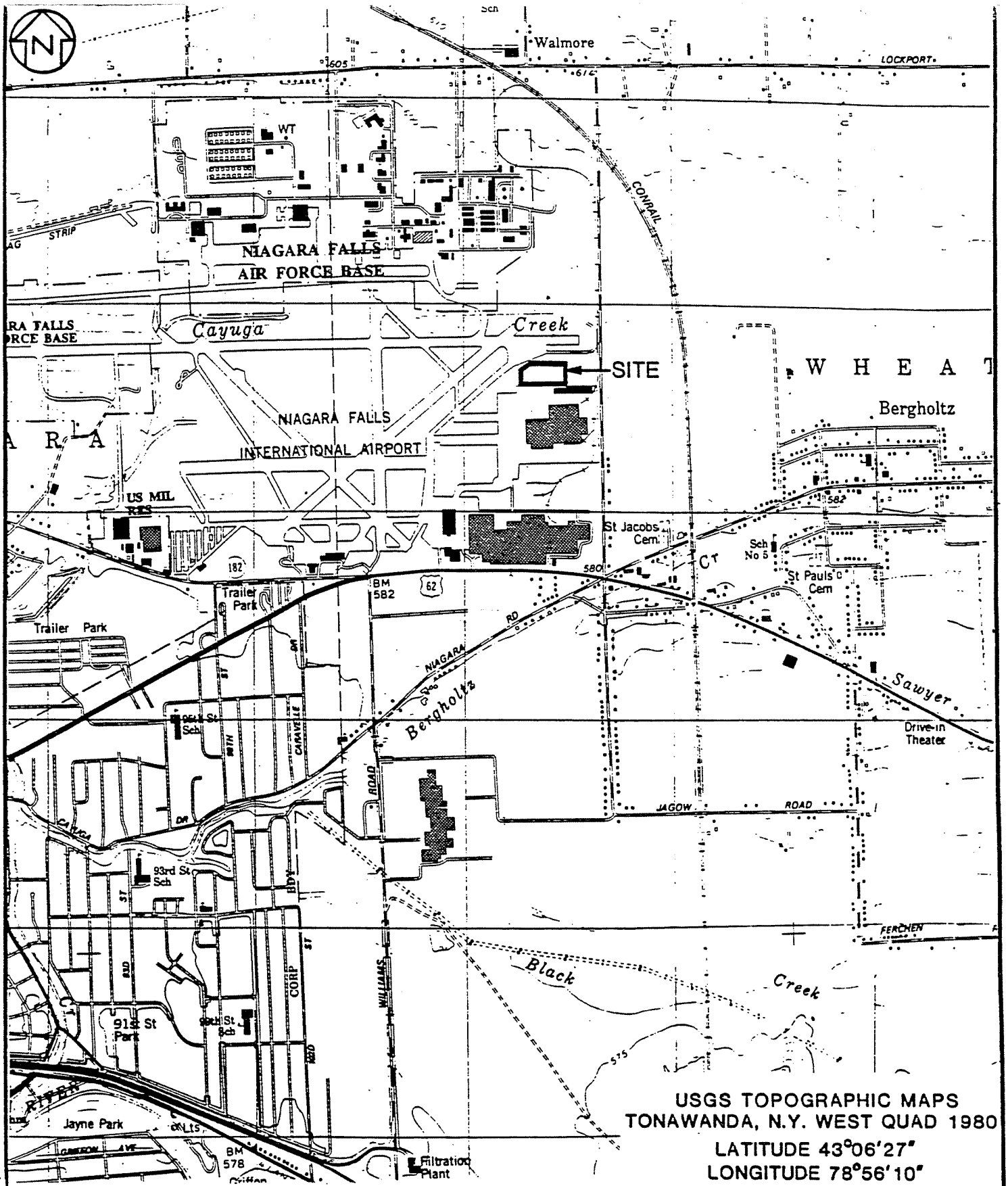
REFERENCE 1



USGS TOPOGRAPHIC MAPS
TONAWANDA, N.Y. WEST QUAD 1980
LATITUDE 43°06'27"
LONGITUDE 78°56'10"

	Scale: 1:24000		
	By	Date	
Dwn.	MJS	12/85	
Ckd.			
Ap'vd.	TPC	2/86	
Rev.			

RECRA RESEARCH INC.
BUFFALO, NEW YORK

NIAGARA FRONTIER TRANSPORTATION AUTHORITY
WHEATFIELD, N.Y.
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280417

VICINITY MAP

A

BRUNING 61160-1

recycled paper

REFERENCE 2

(2)

PRELIMINARY INVESTIGATION AND PROFILE REPORTS
FOR 26 SUSPECTED DISPOSAL SITES
IN NIAGARA COUNTY, NEW YORK.
NIAGARA COUNTY HEALTH DEPARTMENT.
March 1982.

NAME

NIAGARA FRONTIER TRANSPORTATION AUTHORITY (DEC #932090)

LOCATION

The disposal area is a shallow 2.75 acre pond located north of the Carborundum Coated Abrasives Plant, 400 feet west of Walmore Road.

A site sketch is attached.

OWNERSHIP

The pond is located on property owned by the Niagara Frontier Transportation Authority, Niagara Falls Airport. Correspondence should be addressed to Mr. Joseph Toromino, Assistant Manager, Niagara Falls Airport, Niagara Falls Boulevard, Town of Niagara.

Carborundum uses the pond in conjunction with its SPDES Permit. The contact at Carborundum is Mr. Gerald McGee.

HISTORY

Carborundum uses the pond on the airport property as a settling basin for storm and cooling water prior to discharge to a storm sewer which enters Cayuga Creek. The discharge is in conjunction with a SPDES Permit #NY0001716 issued to Carborundum. Carborundum monitors the discharge in terms of flow and the following parameters: BOD, TSS, TDS, Phenol, TKN, pH and temperature.

Records show that at least since the early 1970's, the pond water had a high phenol content. Reports from 1975 and 1976 indicate that a brown scum was found on the pond and that phenol odors were emitted.

On December 19, 1978 a phenol tank on the roof of the plant spilled up to 6,000 gallons of phenol. The phenol solidified, but later became liquid after contact with water. It is estimated by Carborundum that 90% of the spillage was pumped to sanitary sewers and 10% (600 gallons) entered the pond via roof drains.

Clean up measures taken by Carborundum included using 60 pound bags of activated carbon to adsorb the phenol in the effluent and pumping the pond water to the sanitary sewer at the rate of 100 gpm to 200 gpm until the phenol concentration in the discharge was below one part per million. The drain lines in the plant were cleaned by Chem Trol and high pressure flushed. The sewers were also flushed.

An inspection by Niagara County Health Department personnel was made in January, 1982. There were no visible signs of contamination. Birds congregate in the pond without noticeable ill effects.

RESULTS OF PREVIOUS SAMPLING

As a requirement for the SPDES Permit, Carborundum submits results of monitoring of discharge to DEC and the Niagara County Health Department on a monthly basis. Phenol standards (maximum 1.4 lb/day average or 2.8 lbs in any day) are frequently exceeded. Other parameters are generally met.

There is no record of sediment samples or soil samples being taken.

REVIEW OF AERIAL PHOTOGRAPHY

Examination of USDA aerial photographs taken in 1958 (ARE 3V-82) and 1966 (ARE-2V-31) revealed no information other than verifying that the pond and the plant were both present in 1958.

SOILS/GROUNDWATER

The USDA Soil Conservation Service, Soil Survey for Niagara County lists the soils in this area as Odessa and Lakemont silty clay loam. Both of these soil types are deep and somewhat poorly drained. Odessa soils are typically found on 0 to 2% grades. Lakemont soils are generally level to slightly depressional and are typically ponded during wet periods. Either soil type may support a perched water table above impervious substratum.

No boring records were found from jobs near this site. No other soil data was available.

The bedrock is Lockport Dolomite. The thickness of the Dolomite, the depth to water bearing zones and the direction of flow of the groundwater aquifers is unknown.

GROUNDWATER

As indicated above, the depth and direction of flow of bedrock aquifers is unknown. A perched water table is a possibility, but such an aquifer is expected to be localized.

There are no known drinking water or industrial wells located within three miles of the site. There are no known users of groundwater in this area.

SURFACE WATER

The discharge from the pond enters Cayuga Creek via a culvert beneath the airport runways. Storm water from the airport mixes with this discharge.

Cayuga Creek water is not used for drinking or industrial uses. Cayuga Creek enters the Niagara River four miles downstream from the pond. The City of Niagara Falls water intakes are located three miles downstream from the mouth of Cayuga Creek.

SURFACE WATER (continued)

There are no major wetland areas nearby other than the pond itself. The site is always flooded although it appears impossible for water to overflow to anywhere other than the storm culvert to Cayuga Creek.

AIR

There are no homes within one mile of this site. The nearest population is the Niagara Falls Air Force Base located slightly over one mile to the northwest. The surrounding area is industrial to the south, airport runways to the north and west and agricultural across Walmore Road to the east.

FIRE/EXPLOSION

The nearest off-site building is the Carborundum Plant 100 feet south. Only 50 buildings are within one mile (Carborundum, Bell, Airport, Air Force Base and along Pine Avenue). Roughly 500 are within 2 miles, primarily to the southeast. Several hundred mobile homes are within two miles.

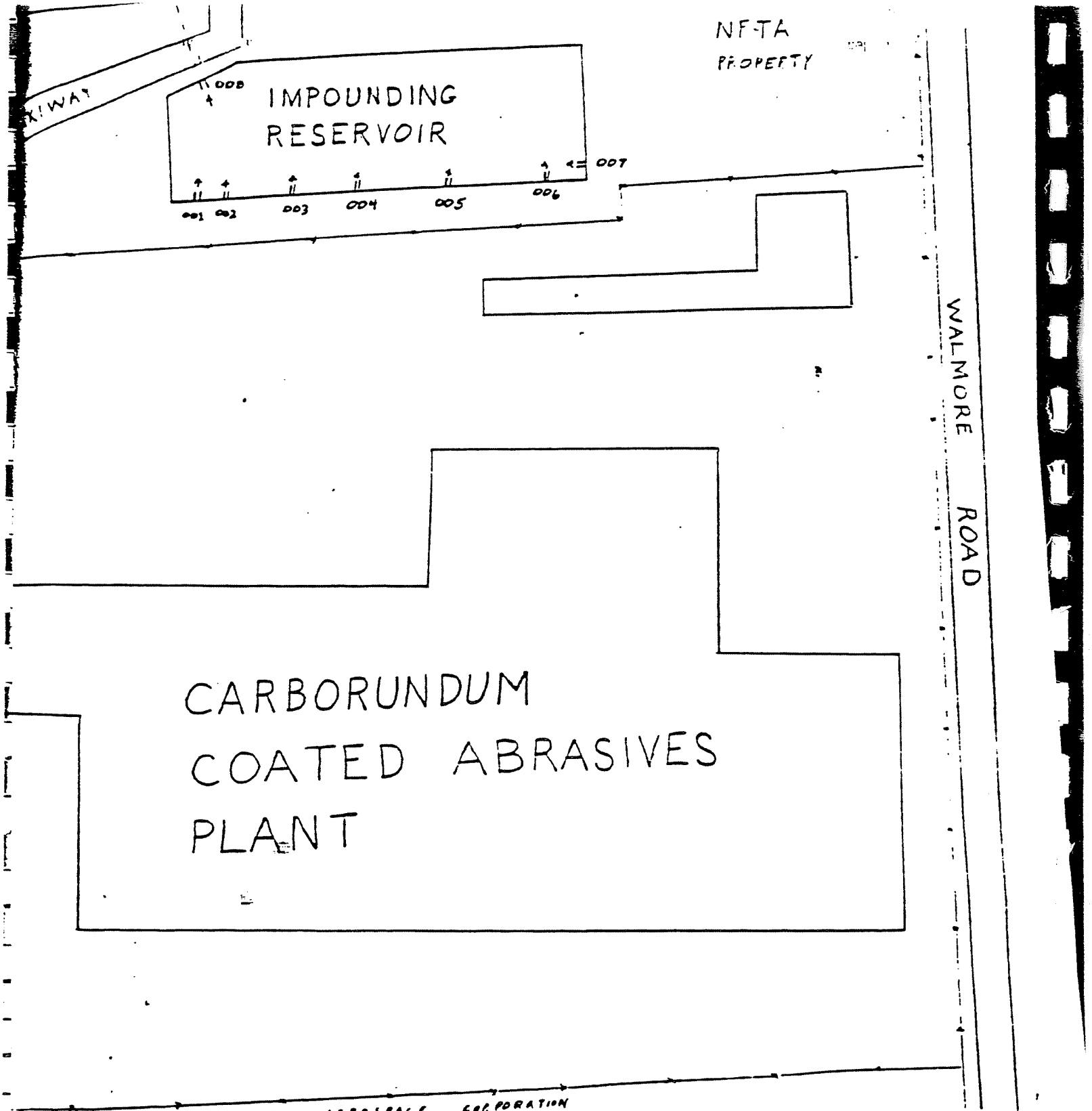
DIRECT CONTACT

The area is fenced from all sides. Bars have been placed across storm drains to prevent persons from entering the airport via storm drains. The site is on airport property and access is controlled by the airport.

CONCLUSIONS

The extent of contamination of the water and bottom sediments must be determined. Sediment samples near the shoreline are readily obtainable, as are water samples. Wells could be placed, if desired, around the perimeter of the site although access for drilling equipment may be difficult.

If significant contamination is found, the potential for pollution of Cayuga Creek, which enters the Niagara River, is high. Due to the nature of the site, perhaps it is better handled as a water pollution problem rather than as a solid waste disposal site. Any further action taken should not duplicate work done in conjunction with the SPDES Permit.



NFTA SITE - DEC # 932090

NOT TO SCALE

M. Hopkins 2/6/81

REFERENCE 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 932090
EPA ID: NYD980654321

NAME OF SITE : Niagara Frontier Transportation Auth.
STREET ADDRESS: Niagara Falls Blvd.
TOWN/CITY: COUNTY: ZIP:
Wheatfield Niagara

SITE TYPE: Open Dump- Structure- Lagoon-X Landfill- Treatment Pond-
ESTIMATED SIZE: 2.75 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: NFTA
CURRENT OWNER ADDRESS.: Niagara Falls Blvd., Wheatfield, NY
OWNER(S) DURING USE...: NFTA
OPERATOR DURING USE...: NFTA
OPERATOR ADDRESS.....: Niagara Falls Blvd., Wheatfield, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From To

SITE DESCRIPTION:
This site is a lagoon located on NFTA property north of the Carborundum Corp. plant. A Phenol spill from Carborundum in 1978 released Phenol to this pond. The pond drains across the Airport to Cayuga Creek. Carborundum does have a SPDES permit to discharge to this pond. A clean-up of the spill occurred in 1979. The USGS collected two soil samples adjacent to the lagoon in 1982. No significant contamination was found. A Phase I investigation was completed in 1987. In 1989, DEC collected sediment samples from the pond at the Carborundum outfalls. No phenol was detected in the sediments.

HAZARDOUS WASTE DISPOSED: TYPE	Confirmed-X	Suspected- QUANTITY (units)
Phenol spills		Unknown

SITE CODE: 932090

ANALYTICAL DATA AVAILABLE:
Air- Surface Water-X Groundwater- Soil-X Sediment-

CONTRAVENTION OF STANDARDS:
Groundwater- Drinking Water- Surface Water-X Air-

LEGAL ACTION:

TYPE..: State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-
NATURE OF ACTION:

GEOTECHNICAL INFORMATION:
SOIL TYPE: Silty Clay Loam
GROUNDWATER DEPTH: Unknown

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

DEC is currently assessing the presence of evironmental problems at this site. Samples have revealed no significant contamination.

ASSESSMENT OF HEALTH PROBLEMS:

The site is very secure and access is extremely limited, as this is a restricted area. Hence, contamination through direct contact is considered highly unlikely. A possible exposure route is through the water released into the sewer leading to Cayuga Creek. However, this creek is not known to be used for drinking, industrial, or primary contact recreational purposes.
Some old domestic wells have been identified within the area, but these are not used for drinking water. Potable water is provided by the municipality.

REFERENCE 4

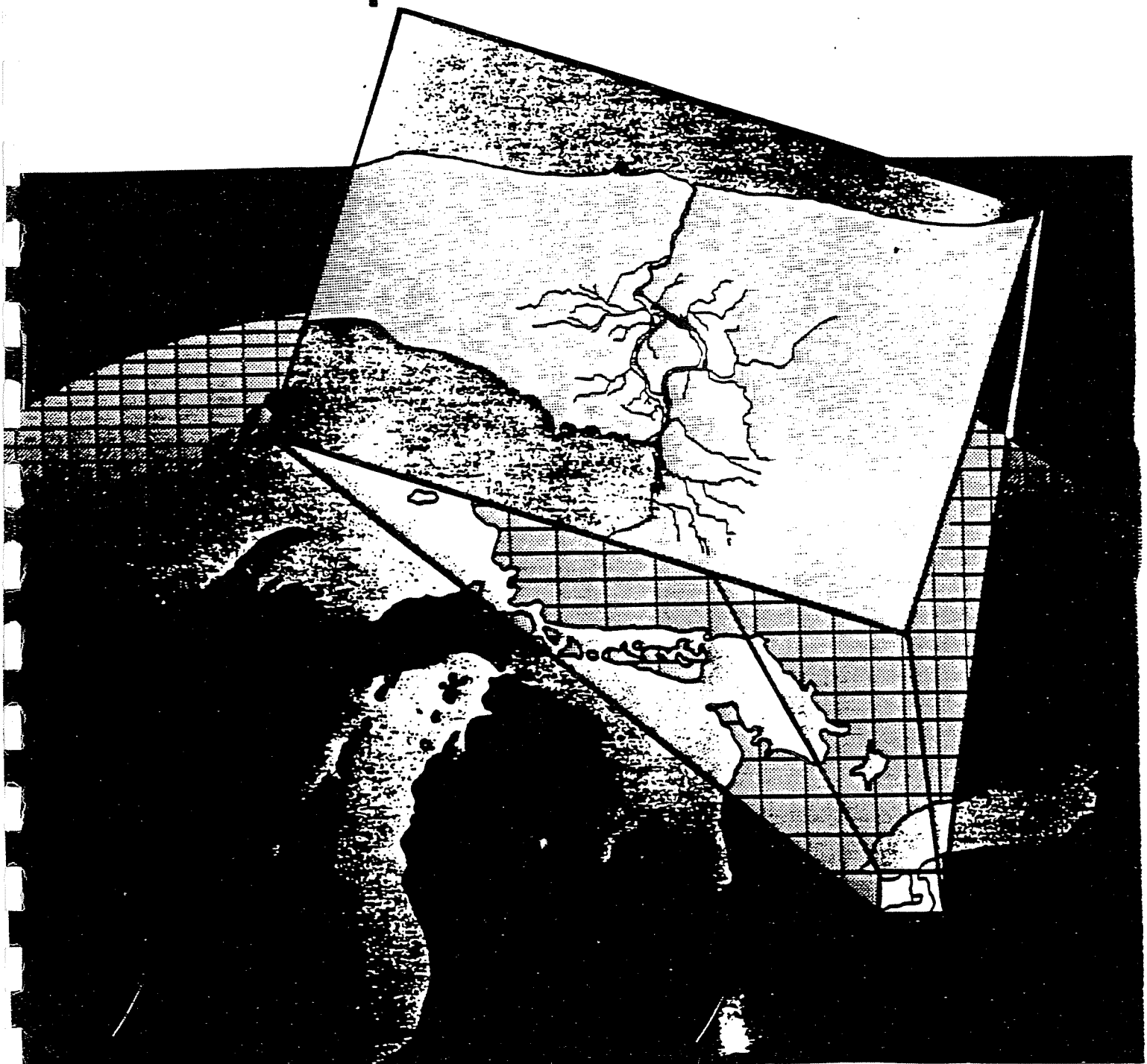
United States
Environmental Protection
Agency

Program Office
536 South Clark Street
Chicago, Illinois 60605

March 1983

EPA

Preliminary Evaluation Of Chemical Migration To Groundwater and The Niagara River from Selected Waste-Disposal Sites



91. TOWN OF NIAGARA, LOCKPORT ROAD LANDFILL (Literature review) NYSDEC 932089

General information and chemical-migration potential.--The Lockport Road landfill, in the city of Niagara Falls, has been used mainly for residential waste such as paper, glass, yard trimmings, metal, rags, plastics, garbage, and miscellaneous items.

Preliminary geologic and chemical data indicate a limited potential for contaminant migration; however, the potential is indeterminable at this time. The underlying silty clay may prevent vertical flow of contaminants to the fractured bedrock. Periodic water-quality monitoring at wells on the site would be needed to detect lateral migration of leachate from the site.

Geologic information.--The site consists of a lacustrine silty clay about 13 ft thick overlying bedrock of Lockport Dolomite (Wegman Co., Inc., 1978).

Hydrologic information.--Dunn Geoscience Corp. installed three monitoring wells, one upgradient and two downgradient from the landfill. Ground water was encountered from 3 to 7 ft below grade. Ground-water flow is probably westward toward Gill Creek.

Chemical information.--A water sample was taken from each monitoring well for heavy-metals analysis. Results indicated slightly elevated concentrations of all heavy metals except iron, which was as high as 530 µg/L.

Sources of data

Dunn Geoscience Corporation, 1981, Town of Niagara Sanitary Landfill, Facility No. 32S08, open dump inventory, ground-water quality evaluation, New York State Department of Environmental Conservation Resource Conservation Recovery Act: Albany, N.Y., Dunn Geoscience Corp., 16 p., 4 appendices, 1 map.

Leonard S. Wegman Co., Inc., 1978, Sanitary landfill report, Town of Niagara: 50 p., 4 appendices.

92. NIAGARA FRONTIER TRANSPORTATION AUTHORITY (USGS field reconnaissance) NYSDEC 932090

General information and chemical-migration potential.--The Niagara Frontier Transportation Authority site, in the town of Wheatfield, is a basin that has collected an unknown amount of phenolic spills from the adjacent abrasive plant.

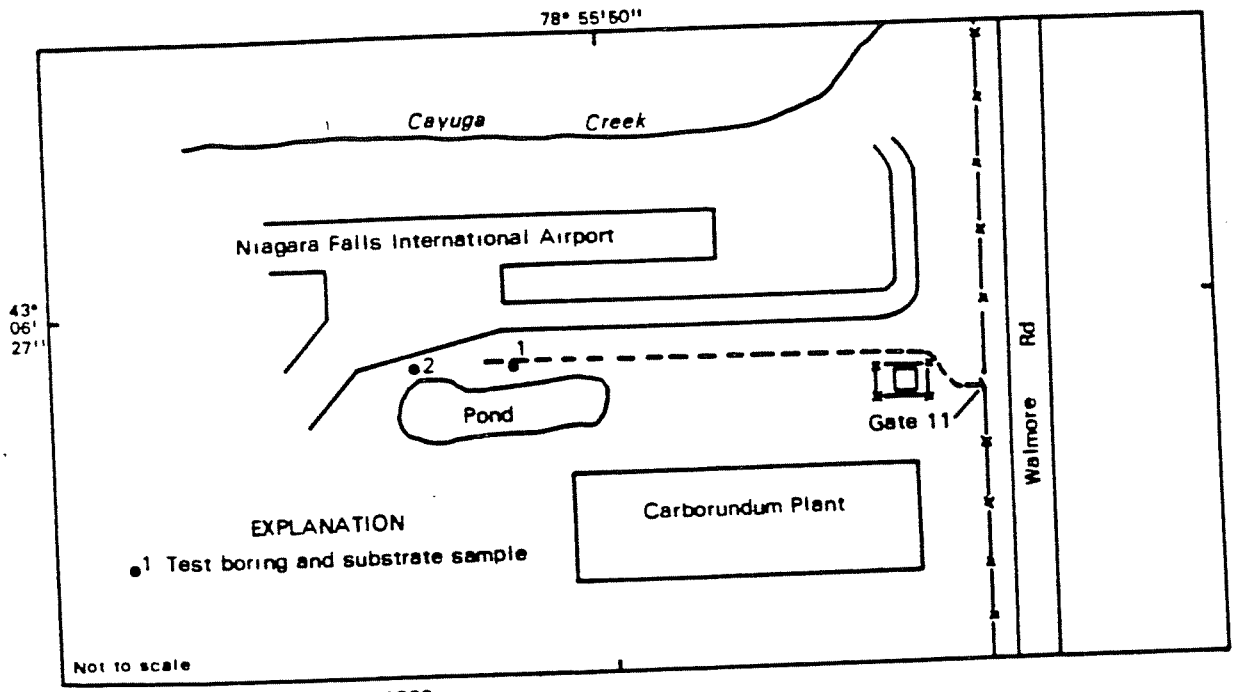
The potential for contaminant migration is indeterminable.

Geologic information.--The site consists of unconsolidated deposits probably overlying Lockport bedrock. The U.S. Geological Survey drilled two boreholes on the site in 1982; the locations are shown in figure C-50. The geologic logs are as follows:

Boring no.	Depth (ft)	Description
1	0 - 3	Topsoil, brown.
	3 - 5.5	Clay, sandy, brown, tight.
	5.5 - 6.5	Clay, reddish, tight.
	6.5 - 8.0	Same.
	8.0 - 13.0	Same.
	13.0 - 15.0	Clay, reddish, wet, with some small gravel.
		SAMPLE: 13 - 15 ft.
2	0 - 3.5	Topsoil, brown.
	3.5 - 7.5	Clay, pinkish brown.
	7.5 - 10.0	Same, changing to greenish gray.
	10.0 - 15.0	Clay, pinkish, wet.
		SAMPLE: 14 - 15 ft.

ydrologic information.--Ground water was encountered from 10 to 13 ft below land surface. The yield from the saturated zone was too low to warrant the nstallation of monitoring wells. The direction of ground-water flow is probbly northward toward Cayuga Creek.

Chemical information.--The U.S. Geological Survey collected two soil samples for rganic-compound analyses; results are given in table C-30. The samples conained three priority pollutants, all phthalates and all below 40 µg/kg, and two nonpriority pollutants.



Base from USGS field sketch, 1982

Figure C-50. Location of sampling holes at Niagara Frontier Transportation Authority, site 92, Niagara Falls.

Table C-30.--Analyses of substrate samples from Niagara Frontier Transportat. Authority, site 92, Wheatfield, N.Y., July 27, 1982.
[Locations shown in fig. C-50. Concentrations are in µg/kg, dashes indicate that compound was not found.]

	Sample number	
	1A	2A
Organic compounds		
Priority pollutants		
Bis(2-ethylhexyl) phthalate	35.7	—
Di-n-octyl phthalate	15.8	—
Diethyl phthalate	LT	—
Non-priority pollutants		
Acetone	38.1	—
Bis(2-ethylbutyl) phthalate[1]	570	—

[1] Tentative identification based on comparison with the National Bureau of Standards (NBS) library. No external standard was available. Concentration reported is semiquantitative and is based only on an internal standard. GC/MS spectra were examined and interpreted by GC/MS analysts.

94. NIAGARA RIVER--BELDEN SITE (USGS field reconnaissance) NYSDEC 932

General information and chemical-migration potential.--The Belden site, on t Niagara River in the town of Wheatfield, was used by the Goodyear Company for the deposition of fill, rubble, and thiazole polymer blends in unknown quantities. Leachate has been noted leaving this site in surface water, but the chemical composition is unknown.

Preliminary data indicate some potential for contaminant migration, but analyses of ground-water samples indicate low concentrations of contaminants Additional analyses would be needed to define the extent of ground-water contamination and the potential for offsite migration. The potential for contaminant migration is indeterminable.

Geologic information.--The U.S. Geological Survey drilled two test holes on t site and installed two monitoring wells in 1982; the locations are shown it figure C-51. The geologic logs are on page 402.

Hydrologic information.--Ground water was encountered in both test holes. T direction of ground-water flow is probably southwestward toward the river.

Chemical information.--A water sample was collected from each of the monitor wells and analyzed for organic compounds; results are given in table C-31. samples contained two priority pollutants, both phthalates, at concentrations below the quantifiable detection limit, and four nonpriority pollutants as as two possibly naturally occurring organic compounds.

REFERENCE 5

GROUND-WATER RESOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK

Prepared for the
Erie-Niagara Basin Regional Water Resources
Planning Board

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968

REFERENCE 6

(6)

DRAFT

UNCONTROLLED HAZARDOUS WASTE SITE RANKING SYSTEM - A USERS MANUAL

DRAFT

10 June 1982

(errata included)

REFERENCE 7

DEC - 5

New York State Atlas of Community Water System Sources 1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

REFERENCE 8

(5)

STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

MARIO M. CUOMO
Governor

GAIL S. SHAFFER
Secretary of State

Published by
DEPARTMENT OF STATE
162 Washington Avenue
Albany, New York 12231

REFERENCE 9

Note 1: [Repealed]

CLASS D

Best usage of waters. These waters are suitable for secondary contact recreation, but due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery or stream bed conditions, the waters will not support the propagation of fish.

Conditions related to best usage of waters. The waters must be suitable for fish survival.

Quality Standards for Class D Waters

Item: 1. pH.

Specifications: Shall be between 6.0 and 9.5.

Item: 2. Dissolved oxygen.

Specifications: Shall not be less than three milligrams per liter at any time.

Note 1: [Repealed]

701.20 Classes and standards for saline surface waters. The following items and specifications shall be the standards applicable to all New York Saline Surfaces Waters which are assigned the classification of SA, SB, SC or SD, in addition to the specific standards which are found in this Part under the heading of each such classification.

Quality Standards for Saline Surface Waters

Items: 1. Garbage, cinders, ashes, oils, sludge or other refuse.

Specifications: None in any waters of the marine district as defined by Environmental Conservation Law (§17-0105).

Item: 2. pH.

Specifications: The normal range shall not be extended by more than 0.1 pH unit.

Item: 3. Turbidity.

Specifications: No increase except from natural sources that will cause a substantial visible contrast to natural conditions. In cases of naturally turbid waters, the contrast will be due to increased turbidity.

Item: 4. Color.

Specifications: None from man-made sources that will be detrimental to anticipated best usage of waters.

Item: 5. Suspended, colloidal or settleable solids

Specifications: None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to each class.

Items: 6. Oil and floating substances.

Specifications: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.

Item: 7. Thermal discharges.

Specifications: (See Part 704 of this Title.)

CLASS SA

Best usage of waters. The waters shall be suitable for shellfishing for market purposes and primary and secondary contact recreation.

Quality Standards for Class SA Waters

Item: 1. Coliform.

Specifications: The median MPN value in any series of samples representative of waters in the shellfish growing area shall not be in excess of 70 per 100 ml.

Item: 2. Dissolved oxygen.

Specifications: Shall not be less than 5.0 mg/l at any time.

Items: 3. Toxic wastes and deleterious substances.

Specifications: None in amounts that will interfere with use for primary contact recreation or that will be injurous to edible fish or shellfish or the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof or impair the waters for any other best usage as determined for the specific waters which are assigned to this class.

CLASS SB

Best usage of waters. The waters shall be suitable for primary and secondary contact recreation and any other use except for the taking of shellfish for market purposes.

Quality Standards for Class SB Waters

Item: 1. Coliform

Specifications: The monthly median coliform value for 100 ml of sample shall not exceed 2,400 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a coliform value of 5,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations. This standard shall be met during all periods when disinfection is practiced.

REFERENCE 10

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, NY 14202-1073 716/847-4550

Henry G. Williams
Commissioner

December 18, 1985

Mr. Sheldon S. Nozik
RECRA Research, Inc.
4248 Ridge Lea Road
Amherst, NY 14226

Dear Mr. Nozik:

Tentative Erie County and final Niagara County freshwater wetlands are shown directly on your site maps for the Superfund sites you are studying. Please be sure to examine all the maps since I did not copy all wetland boundaries if a given area was shown on another map.

Also, our maps show only those wetlands which exceed 5 ha in size. We have no information compiled for wetlands less than 5 acres in size.

To my knowledge, we have no "critical habitats" within one mile of the sites in question. Further, I am not aware of endangered or threatened species occupying these sites.

If you need some specific information on the wetlands within your study area, you will need to come to Regional Headquarters to compile those data.

Sincerely,

Gordon R. Batcheller
Senior Wildlife Biologist
Region 9

GRB:ls

Enc.

cc: Mr. Pomeroy

RECRA RESEARCH, INC.

Hazardous Waste And Toxic Substance Control

December 13, 1985

Mr. James Pomeroy
Habit Protection Biologist
NYSDEC Fish and Wildlife Office
128 South Street
Olean, NY 14760

Dear Mr. Pomeroy:

As per our telephone conversation on December 3, 1985, enclosed are sections of the topographic maps for the NYSDEC Phase I Superfund sites we are presently working on. Below is a list of these sites:

1. Exolon Company
2. Pennwalt-Lucidal
3. Mollenberg-Betz Co.
4. Empire Waste
5. Bisonite Paint Co.
6. Stocks Pond
7. Aluminum Matchplate
8. Otis Elevator (Stimm Assoc.)
9. LaSalle Reservoir
10. Tonawanda City Landfill
11. Union Road Site
12. Central Auto Wrecking (Diarsonal Co.)
13. Procknal and Katra
14. Consolidated Freightway
15. U.S. Steel (Stimm Assoc.)
16. Ernst Steel
17. American Brass (Anaconda)
18. Erie-Lackawanna Site
19. Dresser Industries
20. W. Seneca Transfer Station
21. Old Land Reclamation
22. Northern Demolition
23. Lackawanna Landfill
24. South Stockton Landfill*
25. Chadakoin River Park*
26. Dunkirk Landfill*
27. Felmont Oil Co.*
28. NFTA**
29. Walmore Road Site**
30. Schreck's Scrapyard**

* Chautaugua County
** Niagara County

As part of the search requirements for the NYSDEC Superfund sites, each of these sites must be documented as follows:

- if there are any coastal wetlands within two (2) miles of the site
- if there are any freshwater wetlands within one (1) mile of the site (5 acre min.
- if there are any critical habitats within one (1) mile of the site (endangered species or wildlife refuges)

Continued . . .

4248 Ridge Lea Road, Amherst, New York 14226 Telephone (716) 838-6200

Would you please forward information on sites 1-10 as soon as possible, as we have a January 15, 1986 deadline for submittal of these reports to Albany.

Thank you very much for your assistance and promptness in these matters. Should you have any questions or comments, please do not hesitate to call.

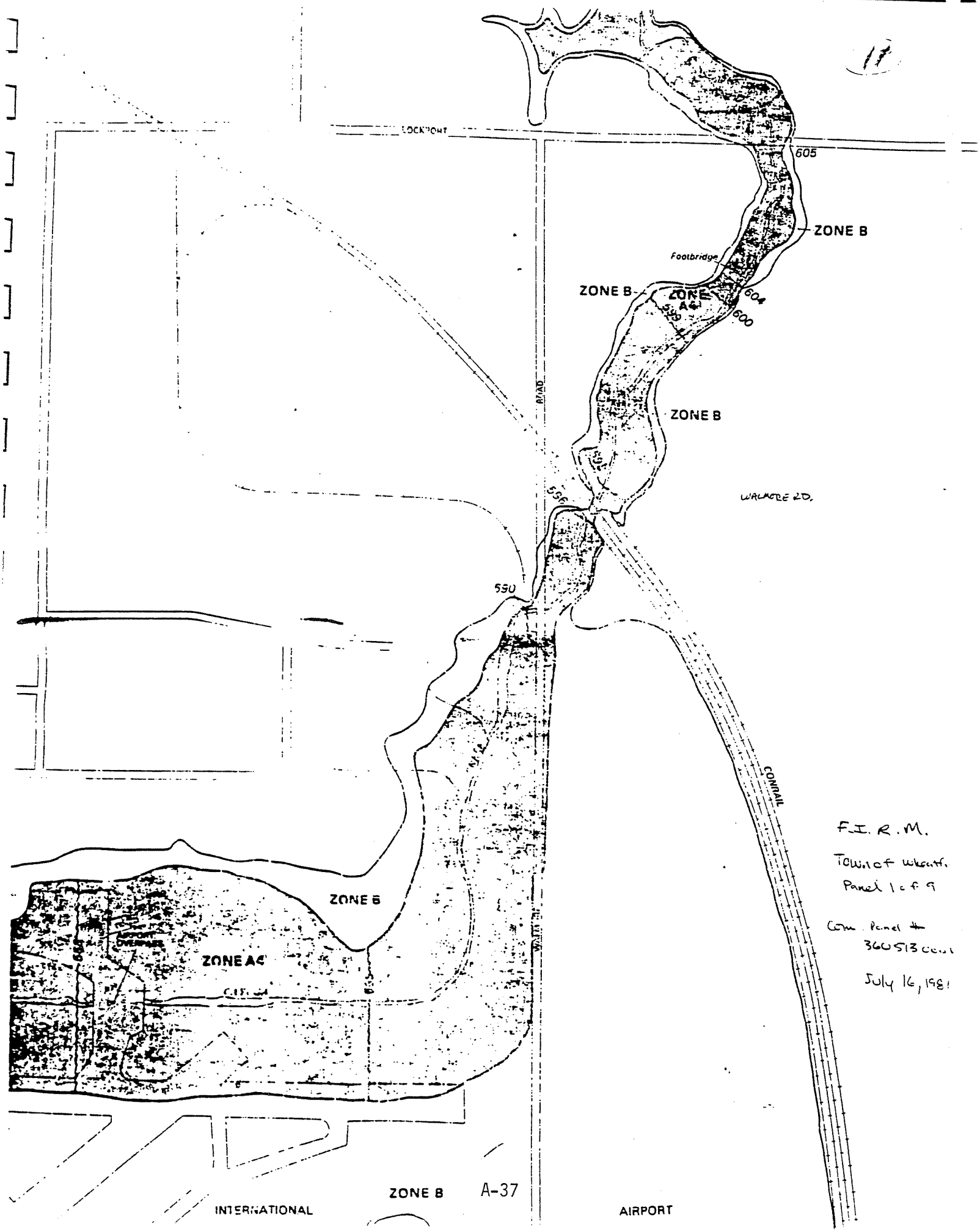
Sincerely,

RECRA RESEARCH, INC.

Sheldon S. Nozik
Environmental Specialist

SSN/jlo
Enclosure

REFERENCE 11



F.I.R.M.

Town of Wheatfield

Panel 1 of 9

Com. Panel # 360513 0001

July 16, 1981

REFERENCE 12

CARBORUNDUM

Memorandum

To: A. Miller

Date: March 28, 1979

From: R. G. Bush

Copy to: J.W. Golding

Subject: SPDEC PERMIT NY0001716 PHENOL SPILL

Attached is a copy of Carborundum's report on the subject Phenol Spill sent to the New York DEC. We regret that a copy was not sent to the Niagara County Health Department office.

Since the January 16, 1979 report, the pumping of the pond water to the sanitary sewer has continued. The changing of the activated carbon cell bags at the outfall #8 has been done periodically with the last change done on 10 March 1979. Pumping will continue uninterrupted until the phenol level in the pond is approximately 0.8 ppm. The latest pond phenol level report is 21 March 1979 of which 1.5 ppm phenol for precarbon cell and 1.15 ppm phenol for postcarbon cell. At the first available opportunity the bottom sludge at the #6 and #7 area and adjacent to outfall #8 will be analyzed for phenol content. Once this level is reached, and if the sludge is at the same ppm level, all pumping and carbon filtration will be ceased. The D.E.C. and N.C.H.D. will then be notified that the pond is again at normal operating levels.

I will keep you informed of future progress.

RGB:fm
Att.

GO-153

The Carborundum Company · Carborundum Center · Niagara Falls, New York 14302

January 16, 1979

Mr. Paul Foersch
New York State Department
of Environmental Conservation
485 Delaware Avenue
Buffalo, New York

Re: WHEATFIELD SPILL
NPDES NY-0001716
OUTFALL #7

Dear Paul:

As requested by your phone call on January 10, 1979, we provide the following account of the activity at our Wheatfield Plant.

Approximately 6000 gallons of phenol was accidentally spilled at the Wheatfield Plant on December 19, 1978. At ambient temperature, 100% phenol is a solid. It is highly soluble in water and vice-versa, and small amounts of water lowers the freezing point considerably. It will decompose under normal interaction with bacteria into non-toxic substances.

When it is stored, it is maintained at 135°F and recirculated from the bottom to the top of the tank to thoroughly mix and maintain temperature. Due to a freeze-up in the recirculating line at the top of the tank, fluid backed up the weigh tank drain; the weigh tank was filled and then the fluid was discharged out the vent to the roof.

When the phenol reached the roof, some of it solidified due to the outside temperature. When the surface was warm, it flowed to the downspout and to the sewer. An estimated 90% went to the sanitary sewer, the remaining 10% to a diversion sewer and hence to the pond which empties into Cayuga Creek. This occurred at 2:30 P.M.

The spill was reported at 4:30 P.M. to Mr. John Beecher of the New York State Department of Environmental Conservation. Shortly after 5:00 P.M., Mr. Robert[illegible] Matthews, Director of Utilities for the City of Niagara Falls was notified.

The next day, a corporate task force met with representatives of the High Performance Plastics Division and the Coated Abrasives Division. A strategy was formulated. This strategy provided for:

1. Containment in the pond of as much of the contaminant as possible.

2. Filtration of all fluid exiting the pond to the creek with activated carbon.

3. Pumping to the sanitary sewer up to 200 gpm on weekends and up to 100 gpm during the week. The City sanitary system has an activated carbon system in its design for removal of phenol.

Starting on December 20th, the pond was tested for phenol at several points. A log of the test data was kept and used to determine migration through the pond. Pumping at inlet to the pond (#7) was started on December 20th; this prevented high concentrations of phenol from permeating the pond and removed phenol from the small portion of the pond where it was concentrated. In addition, we damned up the outlet to prevent migration of the phenol to Cayuga Creek. Later that day, the #7 inlet line was vacuumed out and liquids were sent to Chem-Trol for disposal. During the following two days, this line was mechanically cleaned.

An activated carbon filter cell* was designed for the outlet and installation was completed by December 22nd. This filter cell was used to remove phenol prior to discharge to Cayuga Creek. Sixty pound bags of activated carbon were used in the filter cell. These were filled and changed manually, as required.

The roof was cleaned with hot water; the sewer was flushed to remove trapped phenol. The material from this cleanup was sent to the City Treatment Plant. By January 3rd, waters reaching Cayuga Creek were down to 1 part/million of phenol. Downstream from the inlet, the concentration was measured at 0.18 ppm.

The combination of filtering water to the stream and pumping to the sewer was agreed to by State DEC personnel. This procedure was planned to be followed until such time as the concentration in the pond was low enough to meet Discharge Permit conditions of 1.4 pounds/day average discharge. When this condition is reached, the emergency spill procedures will be terminated.

Correction of the condition causing this spill was accomplished by repiping the circulating and return lines to the storage tank.

Very truly yours,

THE CARBORUNDUM COMPANY

R. G. Bush
Environmental Engineer

RGB/abm

*NOTE: A volume of 40,000 pounds of activated carbon was supplied on site for this occasion.

cc: R. G. Brandenburg
R. Morten

REFERENCE 13

The Carborundum Company · Carborundum Center · Niagara Falls, New York 14302

15

May 7, 1979

Mr. Paul Foersch
NYS Dept. of Environmental Conservation
584 Delaware Avenue
Buffalo, New York

Dear Paul:

A phenol spill occurred on December 19, 1978 at the Carborundum Company, Wheatfield Plant, on Walmore Road. The clean-up of the spill was managed by a task force of persons from Corporate, HPP, and CAD Divisions. These people were Messrs. Bush, Bullions, and McGee, respectively.

A meeting of the above was held on May 3, 1979 to review the status. The latest phenol readings, taken on April 25th, showed less than 0.1 ppm leaving the pond. This is equivalent to 0.04 pounds per day. The discharge permit allows 1.4 pounds per day average to be emitted. Test data of January 3rd indicates a dilution of approximately twenty times occurs between the pond discharge and the entrance water to Cayuga Creek after it passes beneath the airport runways. Fish were observed in the pond on April 26th and again on May 3rd; muskrat were active also.

Clean-up work will be concluded within the next two weeks. The last phenol tests are scheduled for May 9th and will be taken at the north shore opposite #5 inlet, at the southeast corner #6/#7 inlet, at the northwest corner #8 outlet, and on the south shore near #5 inlet. Prior to that date, the filter cell will have been removed, the pumps removed, and the pond will have a couple of days to settle into a normal activity.

Mr. Bullions will arrange for all necessary work for clean-up and for activated carbon disposal.

Sludge in the pond bottom will not be disturbed. Although 24,995 ppm of phenol was in the sludge at the #6/#7 area on January 10th, the current (April 4th) level dropped to 6.99 ppm. Warming by the sun has put the phenol into the solution and it has been collected and removed from the pond.

All repiping at the phenol storage tanks has been completed. A spill prevention plan for storage tanks will be included in work which is now being designed by Hibbard Engineers.

The project will be concluded with receipt of the May 9th test data and final disposition of the activated carbon. Complete test data will be reflected in the Quarterly Reports submitted under SPDES Permit #NYO 001716.

Sincerely,

Robert G. Bush P.E.

Robert G. Bush, P.E.
Principal Engineer

RGB/abm

cc: J. DeVald, NCHD
J. Beecher, DEC

REFERENCE 14

CARBORUNDUM

The Carborundum Company · Coated Abrasives Division · Post Office Box 477 · Niagara Falls, New York 14302

May 30, 1980

Mr. Paul E. Foersch, P.E.
Senior Sanitary Engineer
New York State Department
of Environmental Conservation
Region 9 Environmental Quality Office
584 Delaware Avenue
Buffalo, New York 14202

Re: SPDES No. NY0001716
Carborundum Company
Coated Abrasive Division
Permit Effluent Limitations

Dear Mr. Foersch:

In answer to your letter of April 16, 1980 regarding corrective action to alleviate problems of exceeding permit effluent limitations for the periods stated, problems have occurred at various times. The problems have been addressed accordingly, and reported with submitted quarterly reports. Reitorating the periods of question are as follows:

11/1/78 to 1/31/79	A phenol spill occurred and a cleanup was performed. Corrective repiping was done to prevent a possible re-occurrance.
2/1/79 to 4/30/79	Ph results were reported low. Resampling and investigation found that the test equipment malfunctioned. Total suspended solids of one outfall (#006) into the pond showed high test results. Subsequent samplings showed that it reduced to below allowable limits.
5/1/79 to 7/31/79	High phenol report was traced to a leak in a dam and diverted area of the sewer system. The dam was patched and also a backup dam has been installed.
8/1/79 to 10/31/79	BOD was higher than normal for all outfalls causing the total limit to be exceeded. Additional sampling was done to determine what caused the high BOD results, however, nothing was determined and subsequent sampling showed that the BOD values reduced to within allowable limits.
11/1/79 to 1/31/80	High BOD, phenol, and solids were detected and the cause was found to be a process sewer line that backed up into the storm sewer. It was corrected immediately. Additional work to completely remove this problem is in process.

2/1/80 to 4/30/80 High BOD and solids results were encountered during the last report period and at present the outfall trunk lines are being flushed out. Subsequent sampling will be done to characteristically determine what is the makeup constituents of the BOD and solid material in order to determine the source of contaminate entry.

Further details of the above-mentioned corrective actions have been reported in previously submitted quarterly reports.

Although incidents of exceeding the permit limitations have occurred during each of the recent report periods, almost every incident is of a different nature and/or parameter. The Coated Abrasive Division has in the past, and will continue to take steps to insure that the necessary corrective actions are taken to prevent re-occurrance of exceeding limits in the future.

Yours truly,

Gerald F. McGee

Gerald F. McGee
Facility Engineer

GFM:fd

cc: Mr. J. J. DeVald, Niagara County Health Department
Mr. R. G. Bush, Carborundum Corporate Engineering
Mr. A. G. Halliley, Carborundum CAD, Manager, Engineering
Mr. R. G. Raymond, Carborundum Corporate Counsel

REFERENCE 15

New York State Department of Environmental Conservation
Division of Regulatory Affairs-Region 9
600 Delaware Avenue, Buffalo, New York 14202-1073
716/847-4551

Henry G. Williams
Commissioner

PERMIT TRANSMITTAL LETTER
SPDES Facility ID No. NY-0001716
DRA #90-84-1240

Dear Permittee:

Enclosed is your permit which was issued in accordance with applicable provisions of the Environmental Conservation Law. The permit is valid for only that project, activity or operation expressly authorized. If modifications are desired after permit issuance, you must submit the proposed revisions and receive written approval from the Permit Administrator prior to initiating any change. If the Department determines that the modification represents a material change in the scope of the authorized project, activity, operation or permit conditions, you will be required to submit a new application for permit.

PLEASE REVIEW ALL PERMIT CONDITIONS CAREFULLY, INCLUDING ANY MONITORING REQUIREMENTS AND/OR COMPLIANCE SCHEDULE THAT MAY BE REQUIRED. IN PARTICULAR, IDENTIFY YOUR INITIAL RESPONSIBILITIES UNDER THIS PERMIT IN ORDER TO ASSURE TIMELY ACTION AND AVOID LATE REPORTING IF REQUIRED. SINCE FAILURE TO COMPLY PRECISELY WITH PERMIT CONDITIONS MAY BE TREATED AS A VIOLATION OF THE ENVIRONMENTAL CONSERVATION LAW, YOU ARE REQUESTED TO PROVIDE A COPY OF THE PERMIT TO THE PROJECT CONTRACTOR, FACILITY OPERATOR, AND OTHER PERSONS DIRECTLY RESPONSIBLE FOR PERMIT IMPLEMENTATION (IF ANY).

If you have any questions regarding the administrative processing of this permit or request for modification, please contact this office at the above address. Technical questions relating to specific permit conditions should be directed to Mr. Greg Sutton (847-4590).

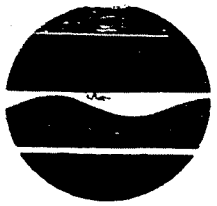
Prior to issuance of this Permit, the Department considered all comments received on the Draft Permit and amended the Permit as necessary. A copy of the Department's response is attached.

Respectfully,
Paul Leuzman
FOR
Steven J. Doleski
Regional Permit Administrator

SMF:
cc: Region 9 Water
R.Hannaford, BWFD
NCHD ✓
ENCRPB
Dr.Baker, EPA
DRA #90-84-1240

Attachment(s)

New York State Department of Environmental Conservation
Division of Regulatory Affairs - Region 9
600 Delaware Avenue, Buffalo, NY 14202-1073
716/847-4551



Henry G. Williams
Commissioner

Response to Carborundum Abrasive's Comments on the Draft Permit

SPDES Facility ID No. NY-0001716

DRA # 90-84-1240

Carborundum Abrasives Company

Town of Wheatfield, Niagara County

1. The company requested review of the Draft Permit's monitoring frequency which was increased from the previously issued permit's monthly sampling and analysis. The Department, however, cannot grant a change because the effluent variability and discharge contamination levels are significant in relation to both existing and proposed effluent limits.

   The Department has changed the Oil and Grease monitoring requirement from a 24-hour composite sample to a grab sample, in accordance with EPA sampling guideline.

2. In response to the company's comment, the Department has changed the monitoring locations to account for the five separate flows into the impounding reservoir. Monitoring must be done upstream of the reservoir to measure the company's discharge to the ultimate receiving stream.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DRAFT

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT
Special Conditions (Part 1)

Industrial Code 2820
Discharge Class (CL) 08
Toxic Class (TX) 4
Major D.B. 01
Sub D.B. 01

Facility IDNumber: NY- 0001716
UPA Tracking Number: 90-84-1240
Effective Date (EDP): EDP - May 1, 1985
Expiration Date (ExDP): EDP+5yr - May 1, 1990
Modification Date(s):
Attachment(s): *General Conditions (Part II, 8/81)*

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Attn: Gerald F. McGee, Facility Engineer

Permittee Name: Carborundum Abrasives Company

Street: P.O. Box 350

City: Niagara Falls State: New York Zip Code: 14304

is authorized to discharge from the facility described below:

Facility Name: Carborundum Abrasives Company

Location (C,T,V): Wheatfield (T) County: Niagara

Mailing Address (Street): P.O. Box 350

Mailing Address (City) Niagara Falls State: New York Zip Code: 14304

from Outfall No. 001 at: Latitude 43° 06' 11" & Longitude 79° 55' 50"

into receiving waters known as: Cayuga Creek, Class D

and: (list other Outfalls, Receiving Waters & Water Classification)

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal as prescribed by Sections 17-0803 and 17-0804 of the Environmental Conservation Law and Parts 621, 752, and 755 of the Departments' rules and regulations.

PERMIT ADMINISTRATOR - Paul D. Eismann, Alternate Regional Permit Administrator

DATE ISSUED March 21, 1985

ADDRESS 600 Delaware Ave. Buffalo, NY 14202

Distribution: Region 9 Water, N.Hannaford, EWFD, EPA #90-84-1240, NCHD, ENCRPB, Dr.Baker, EPA

Commissioner of Environmental Conservation

SIGNATURE

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the Period Beginning EDP - May 1, 1985

and lasting until 5 years from EDP - May 1, 1990

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements: Measurement Frequency	Minimum Monitoring Requirements: Sample Type
001 (Non-Contact Cooling and Rainfall Runoff Wastewater)					
Flow[a]			mgd	Daily	Instantaneous
BOD_5[b]	5.0		mg/l	2/month	24 hr. comp.
Settleable Solids[c]		0.3	ml/l	Weekly	Grab
pH (range)[c]	(6.0-9.0)		SU	Weekly	Grab
Temperature[d]		90	Deg. F	Weekly	Grab
Oil & Grease[b]		15	mg/l	2/month	Grab
Ammonia (as NH_3)[b]		2.0	mg/l	2/month	24 hr. comp.
Phenols, Total[b]		0.005	mg/l	2/month	Grab
Zinc, Total[b]		0.3	mg/l	2/month	24 hr. comp.

a. Total flow associated with all separate wastewater discharges into the impounding reservoir. These separate discharges, shown on page 6 of the permit, were formerly known as outfalls 001, 004, 005, 006 and 007 respectively.

b. Concentration limits associated with this parameter shall be computed from the total poundage resulting from all separate wastewater discharges into the impounding reservoir and the total flow associated with same discharges.

c. Limit associated with this parameter shall be determined from a sample composed of flow proportioned grab samples of every separate discharge into the impounding reservoir.

d. Limit associated with this parameter shall be determined from a grab sample of impounding reservoir discharge.

Note: The permit application must list all the corrosion/scale inhibitors or biodical-type compounds used by the permittee. If use of new boiler/cooling water additives is intended, application must be made prior to use.

REFERENCE 16

DRAFT

10064
10067
10077

NIAGARA COUNTY HEALTH DEPARTMENT

MEMORANDUM

TO: The File and Region Nine Office **DATE:** August 5, 1985

FROM: Mr. Ronald Gwozdek R Gwozdek

SUBJECT: Industrial Inspection
Carborundum Company - Abrasives
Walmore Road, Niagara Falls
SPDES NY 0001716

Date of Inspection: June 25, 1985 10:00 A.M.

Persons Present: Ronald Gwozdek, Niagara County Health Department
Gerald McGee, Carborundum Abrasives Company

Weather: clear, sunny 80°F dry

The writer conducted an inspection of the above referenced facility on June 25, 1985. I met with Gerald McGee, Facilities Engineer, who assisted in completing form EPA 3560-3, and he accompanied me on a tour of the facility.

Nature of Business: The facility manufactures sandpaper from raw materials of cloth, paper, glue, resins (phenol/formaldehyde, phenol/ Furfural & phenol/zinc stearate resins), and abrasive grain material. (See attached flow diagram). Large diameter rolls of sandpaper are manufactured and further processed into sandpaper discs, sheets, rolls, and belts. The facility no longer manufactures resin on site.

The parent company, SOHIO, manufactures an Ekonol^{R} product in Building #W4 of the facility. The following raw materials are utilized in the process - parahydroxy benzoic acid (PABA), phenylacetate, and thermal 66, a heat transfer oil (See attached flow diagram).

Wastewater Generated: Six outfalls exist at the facility (001, 004, 005, 006, 007, 008). Outfalls 001, 004, and 006 accept storm water runoff. Outfall 005 accepts storm water runoff and air compressor non-contact cooling water. Outfall 007 contains storm water and cooling tower blowdown from Bldgs. 7 and 10. Outfall 008 is the discharge from the impounding reservoir to Cayuga Creek. The source of the cooling water at the facility is the Town of Wheatfield and City of Niagara Falls public water supply.

Bldg #2 — 4 located

All sanitary sewage, process wastewater, and boiler blowdown discharges to the Niagara County Sewer District public sanitary sewage system.

All process wastewater generated at the sandpaper manufacturing process is discharged to the public sanitary sewer as noted on the attached flow diagram.

The Ekonol[R] manufacturing process produces two non-contact cooling water discharges which are directed to one of the facility's cooling towers which subsequently has an overflow to outfall 007. Non-contact cooling water generated consists of phenol condenser water and 1,1,1, trichlorethane cooling water. All contact by-products (phenol, acetic acid) are drained and disposed of at a hazardous waste processor.

Cooling Tower Blowdown: The two cooling towers located at Buildings 7 and 10 use the following water treatment chemicals manufactured by Alkin Murray Company: Dispersant 330, N.P.C. 75, V-7 Algecide.

The blowdown occurs at 3 g.p.m. rate to outfall 007. Application for approval of the above water treatment chemicals has been included in the SPDES Permit Renewal Application.

Flow Measurement: Flow measurement is conducted by the facility's private laboratory (Acts Testing). Each outfall contains a stainless steel weir, and all were calibrated in May of 1985.

Petroleum Storage: The facility has two 8,000 gallon above ground jet fuel storage tanks which are empty. The company jet has been sold, and the facility has no plans for the above two tanks. The facility also stores number 6 fuel oil in two above ground 100,000 and 200,000 gallon storage tanks. Each tank is on a cement pad and has an earthen dyke. An inspection of the dyke area at the time of the inspection showed no sign of petroleum leakage. An SPCC plan is available and is updated every three years.

Hazardous Raw Material Storage: All hazardous raw materials are stored in a room which has been divided into four cells. Each cell contains its own fireproof door. No floor drains are provided in any of the cells. Materials being stored include 1,1,1-trichlorethane, methylene chloride, zylene, denatured alcohol, ethylene glycol, phenol, zinc stearate, toluene, ethyl alcohol, methyl alcohol, acetone, and synthetic resins. All chemicals are stored and contained in 55 gallon drums.

Hazardous Waste Material Storage: Hazardous waste materials are being stored in 55 gallon drums outside on palates on top of a concrete pad. A review of the facility's manifest indicates that disposal is conducted within the 90 day maximum storage period. An inspection of the storage area revealed inconsistency with

INSP

labeling and storage requirements. A number of the drums were not labeled, and some of the drums were not sealed properly.

The facility will be notified of proper hazardous material storage requirement.

The facility no longer manufactures resins on the site. They are being purchased from an independent manufacturer. Both phenolic resin reactors have been removed from Building #W4 in addition to the grinding/crushing equipment, outside phenol and formalin storage tanks and associated piping. The only remaining product manufactured in Building #W4 is the Ekonol® process.

Deficiencies:

1) Storage of hazardous waste not in accordance with New York State law.

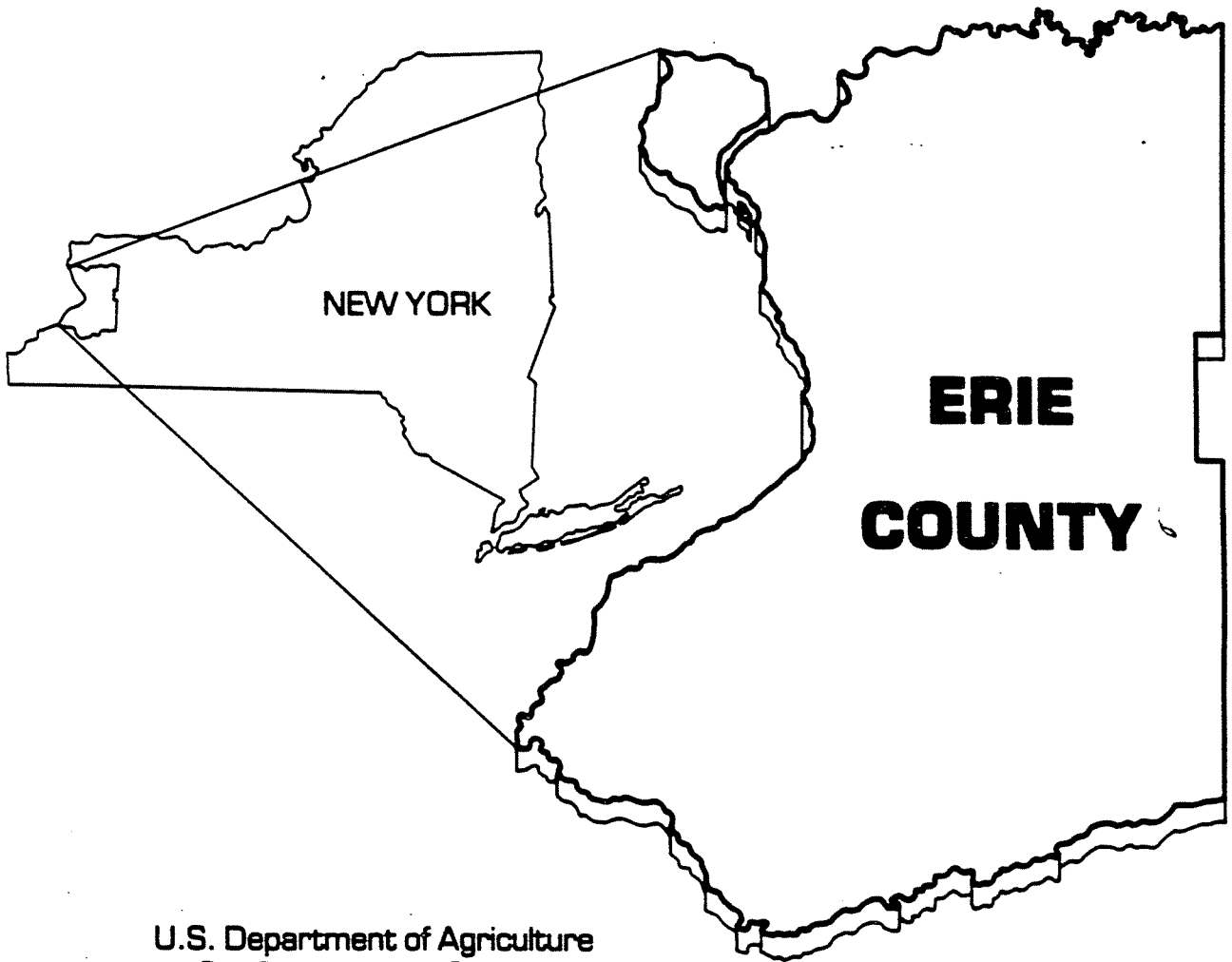
RG:ms

Scrap phenol resin spill site - INSP

Storm sewer cracked joint - INSP

REFERENCE 17

GENERAL SOIL MAP and INTERPRETATIONS



U.S. Department of Agriculture
Soil Conservation Service

in cooperation with

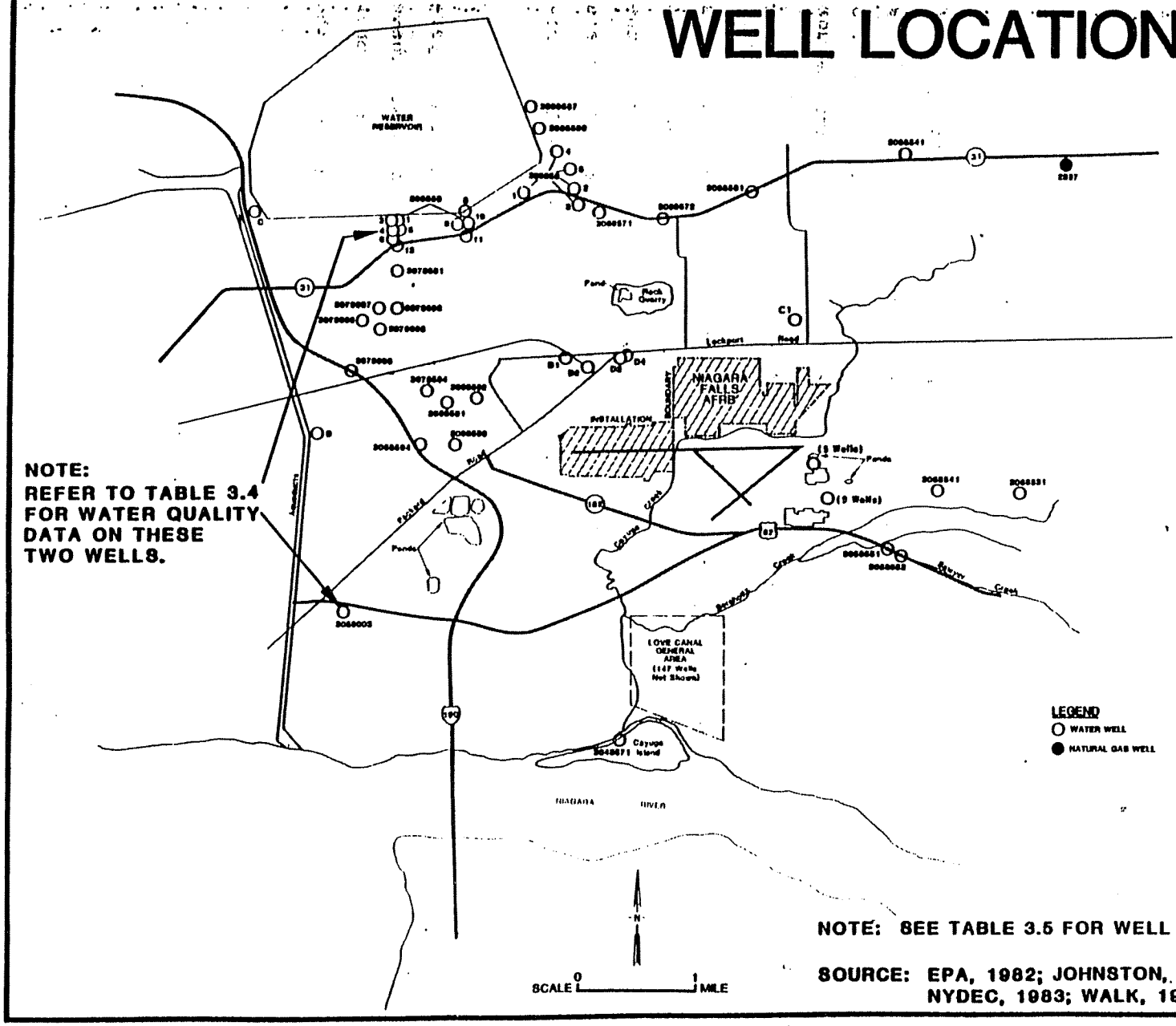
Cornell University Agricultural Experiment Station and
Erie County Soil and Water Conservation District

ERIE COUNTY SOIL & WATER
Conservation District
21 S. Grove Street
East Aurora, N. Y. 14052

REFERENCE 18

NIAGARA FALLS AFRF

WELL LOCATION MAP



NOTE: SEE TABLE 3.5 FOR WELL DATA

SOURCE: EPA, 1982; JOHNSTON, 1964; BAILEY, 1983
NYDEC, 1983; WALK, 1983; TOWN OF NIAGARA, 1983

FIGURE 3.13

TABLE 3.5
WATER WELL DATA FOR NIAGARA FALLS AFRF AND VICINITY

Well ID	Owner &/or Location	Depth (feet) Well	Depth (feet) Casing	Hydrogeologic Unit(s) Tapped By Well	Water Level (feet) Below Land Surface	Water Level (feet) Date mm/dd/yr	Water Level (feet) Approximate Elevation Above NGVD	Use
3048571	Wendt Dairy	35	22	Sl	—	—	—	U
3058551	H. Moll	25	—	Sl	7.4	10/20/60	562.6	U
3058552	H. Moll	20	18	Qsg and Sl	11.1	10/20/60	558.9	U
3059003	Union Carbide Chemical Co.	100	6	Sl	28	1940	549.0	A
3068531 ✓	E. Lass	49	40	Sl	6.3	10/26/60	573.7	D
3068541 ✓	R. Jaeger	19	—	Qsg	—	—	—	D
3068591	C.Swearengen	28	—	Sl	12.1	8/8/60	595.9	U
3068592	W. Mick	49	—	Sl	34.6	8/8/60	589.4	U
3068593	L.Toni	31	—	Sl	13.9	6/2/61	591.1	D
3068594	Haggerty	40	—	Sl	28.4	10/5/60	576.6	U
3078591	—	75	12	Sl	10.3	11/15/62	602.7	O
3078593	W. Lozan	31	15	Sl	12.5	8/8/60	607.5	U
3078594	J. Patterson	34	—	Sl	34.0	8/7/60	575.0	U
3079006	A.W. Nuzum	55	10	Sl	12.3	6/2/61	589.7	C
3079007	E. Schul	25	—	Sl	15.8	8/8/60	584.2	U
3079008	Military Road School	45	—	Sl	14.8	6/2/61	596.2	I
3079009	L. Cora	26	—	Sl	17.4	6/2/61	583.6	U
3088541	W. Kroening	38	—	Sl	23.1	10/27/60	606.9	S
3088561	H. Hasley	38	—	Sl	27.9	10/27/60	612.1	D
3088571	F. Scholefield	38	—	Sl	13.4	8/7/60	616.6	U
3088572	A. Wittcapp	34	—	Sl	25.6	10/27/60	614.4	D
3088581	Colonial Village School	37	11	Sl	20.8	8/8/60	608.2	U
3088582	E. Beath	44	—	Sl	25.1	8/7/60	612.9	D
3088583	W. Holland	49	—	Sl	12.0	8/8/60	617.0	D
3088584	P. Wagner	33	13	Sl	16.5	11/2/61	613.5	D
3088585	NMPC	45	6	Sl	13.4	11/15/62	620.6	O
3088586	PASNY	61	10	Sl	1.0	11/15/62	620.0	PR
3088587	PASNY	61	10	Sl	2.6	11/15/62	620.4	PR
3088591	NMPC	65	11	Sl	20.0	11/15/62	586.0	O
3088593	NMPC	16	12	Sl	4.1	11/15/62	602.9	O
3088594	NMPC	100	16	Sl	8.4	11/15/62	602.6	O
3088595	NMPC	16	14	Qti	8.3	10/30/62	602.7	O
3088596	NMPC	68	19	Sl	11.7	11/15/62	602.3	O
3088598	PASNY	98	21	Sl	6.5	11/15/62	603.5	O
3088599	PASNY	11	8	Qti	9.8	10/30/62	600.2	O
30885910	—	100	12	Sl	6.0	11/15/62	604.0	O
30885911	—	74	15	Sl	7.7	11/15/62	604.3	O
30885913	J. Williams	24	22	Sl	15.8	8/8/60	597.2	D
B	Corps of Engineers	268	—	Sl, Sr, Sc, Sa	—	—	—	GO
C	Corps of Engineers	238	—	Sl, Sr, Sc, Sa	—	—	—	GO
D1	—	—	—	Sl	—	—	—	D
D2	—	—	—	Sl	—	—	—	D
D3	—	—	—	Sl	—	—	—	D
D4	—	—	—	Sl	—	—	—	D
2897	William Beutal & Sons	1,447	—	—	—	—	—	NG
C1 ✓	Love Canal Area (147 Wells)	—	—	Qd and Sl	—	—	—	O
	Carborundum Process Equipment Div. Plant	35	—	Sl	—	—	—	I
	Carborundum Walmore Road Plant (5 Wells)	—	—	Qd	—	—	—	O
	Bell Aerospace Plant (9 Wells)	—	—	Qd and Sl	—	—	—	O

NOTES:

OWNER and/or Location
NMPC = Niagara Mohawk Power Corporation
PASNY = Power Authority of the state of New York

Hydrogeologic Unit(s) Tapped By Well
Qd = Pleistocene deposits, undifferentiated
Qsg = Pleistocene sand and gravel
Qt = Pleistocene glacial till
Sa = Albion Group
Sc = Clinton Group
Sl = Lockport Solomite
Sr = Rochester Shale

Use
A = Abandoned
C = Commercial
D = Domestic
GO = Geological Observation
I = Industrial
NG = Natural Gas
O = Observation
PR = Pressure Relief
U = Unused

Source: Johnston, 1967; EPA, 1982; Bailey, 1983; NYDEC, 1983; Walk, 1983; Town of Niagara, 1983.

TCE WELL WATER SAMPLING

SAMPLE SITES:

1.	Norman Haseley	2063 Saunders Settlement Rd.	Town of Lewiston
2.	Ernest Haseley	2000 Saunders Settlement Rd.	Town of Lewiston
3.	Paul Forsyth	1937 Saunders Settlement Rd.	Town of Lewiston
4.	Glenn Walck	2466 Saunders Settlement Rd.	Town of Lewiston
5.	Donald Rosinski	5980 Tuscarora Rd.	Town of Lewiston
6.	Harold Haseley	5947 Tuscarora Rd.	Town of Lewiston
7.	James Candella	2099 Lockport Rd. ~~285 2658~~, 731-4294	Town of Wheatfield
8.	Norman Mueller	9521 Lockport Rd.	Town of Niagara
9.	Howard Catlin	10205 Lockport Rd.	Town of Niagara
10.	Dorothy Walck	5982 Walmore Rd.	Town of Lewiston
11.	Barry Moll	6154 Walmore Rd. 731-9550	Town of Wheatfield
12.	Melvin Pfohl	2053 Saunders Settlement Rd.	Town of Lewiston
13.	Andrew Trinka	6221 Walmore Rd. 731-9678	Town of Wheatfield

REFERENCE 19

RECRA RESEARCH, INC.
Hazardous Waste And Toxic Substance Control

February 26, 1986

Mr. Paul Lehman
Niagara County Cooperative Extension Agency
4487 Lake Avenue
Lockport, NY 14094

Dear Mr. Lehman:

Thank you for your assistance in the Phase I Superfund investigation we are presently conducting with regard to the Carborundum Abrasives facility on Walmore Road.

As part of the background search requirements for the NYSDEC Superfund investigations, we the consultants are required to have all of our interviews, personal or by telephone, documented. Below is an account of our conversation on February 24, 1986. Would you please read the account, sign at the bottom, and return the original to me. This is only to serve as documentation that the conversation took place.

° According to information provided by the Soil Conservation Service, agricultural land is located within one mile and prime agricultural land within two miles of the Carborundum Abrasives Company plant on Walmore Road, Town of Wheatfield, New York.

Thank you for your cooperation.

Sincerely,

RECRA RESEARCH, INC.

Thomas P. Connare
Environmental Scientist

TPC/jlo

Mr. Paul Lehman

4248 Ridge Lea Road, Amherst, New York 14226 Telephone (716) 838-6200

REFERENCE 20

91-20-2 (1/89)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT
Special Conditions (Part I)

Industrial Code: 3291
Discharge Class (CL): 01
Toxic Class (TX): T
Major Drainage Basin: 01
Sub Drainage Basin: 01
Water Index Number: 0-158-8
Compact Area:

SPDES Number: NY-0001716
DEC Number: 9-2940-00028/00001-0
Effective Date (EDP): 12/ 1/ 90
Expiration Date (ExDP): 12/ 1/ 95
Modification Date(s):
Attachment(s): General Conditions (Part II) Date: 8 /90

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act as amended, (33 U.S.C. Section 1251 et. seq.)(hereafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Attention: J. Fredrick Silver, President

Name: Norton Company
Street: 1 New Bond Street
City: Worcester State: MA Zip Code: 01606

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: Carborundum Abrasives Company
Location (C,T,V): Wheatfield (T) County: Niagara
Facility Address: 6600 Walmore Road
City: Niagara Falls State: NY Zip Code: 14304
NYTM - E: 180.2 NYTM - N: 4779 .8
From Outfall No.: 001 at Latitude: 43° 06′ 11" & Longitude: 79° 55′ 50"
into receiving waters known as: Cayuga Creek Class: D
and; (list other Outfalls, Receiving Waters & Water Classifications)

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in Special Conditions (Part I) and General Conditions (Part II) of this permit.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: Carborundum Abrasives Company
Street: 6600 Walmore Road
City: Niagara Falls State: NY Zip Code: 14304
Responsible Official or Agent: David J. Fink, Plant Manager Phone: (716)695-8120

This permit and the authorization to discharge shall expire on midnight of the expiration date shown and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for a permit renewal no less than 180 days prior to the expiration date shown above.

DISTRIBUTION:
Mr. Robert Speed, Water
Mr. Robert Hannaford, BWFD
Mr. James Devald, NCHD
EPA Region II

Permit Administrator: Paul D. Eismann (Deputy)
Address: 600 Delaware Ave.
Buffalo, New York 14202-1073
Signature: Paul D. Eismann Date: 11/02/90

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP (12/1/90)

and lasting until EDP + 5 YEARS (12/1/95)

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
Outfall 001 (Non-contact cooling water and stormwater)					
Flow	Monitor	Monitor	MGD	Weekly	Instant.(a)
BOD_5	21	Monitor	lb/d	2/Month	24 hr. Comp(a)
Settleable Solids	Monitor	0.3	ml/l	Weekly	Grab(b)
pH (Range)	(6.0-9.0)		SU	Weekly	Grab(b)
Temperature	Monitor	90	Deg. F	Weekly	Grab(c)
Oil & Grease	Monitor	15	mg/l	2/Month	Grab(a)
Ammonia (As NH_3)	Monitor	8	lb/d	2/Month	24 hr. Comp.(a)
Phenols, Total	0.2	Monitor	lb/d	2/Month	24 hr. Comp.(a)
Zinc, Total	Monitor	1.21	lb/d	2/Month	24 hr. Comp.(a)

a. Outfall 001 is the Flow-Weighted Composite of the discharge of the five Storm Sewer Lines as reported in the SPDES renewal Application. Flow, BOD5, Oil and Grease, Ammonia Nitrogen, Phenols, and Zinc shall be analyzed at the point where each of the five Storm Sewer Lines enter the impounding reservoir, and the arithmetic sum of these flows and loadings reported on the Discharge Monitoring Reports. The flows, concentrations, and loadings from each of the five Storm Sewer lines shall be tabulated and submitted as an addendum to the Discharge Monitoring Reports.

b. The limit associated with this parameter shall be determined from a sample composed of flow proportioned grab samples of each discharge into the impounding reservoir.

c. Temperature shall be measured at the point of discharge from the impounding reservoir.

Note: The permit application must list all the corrosion/scale inhibitors or biodical-type compounds used by the permittee. If use of new boiler/cooling water additives is intended, application must be made prior to use.

ACTION LEVEL REQUIREMENTS (TYPE I)

The parameters listed below have been reported present in the discharge but at levels that currently do not require water quality or technology based limits. Action levels have been established which, if exceeded, will result in reconsideration or water quality or technology based limits.

Routine action level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If submission of DMR's is not required by this permit, the results shall be maintained in accordance with instructions on the RECORDING, REPORTING AND MONITORING page of this permit.

If any of the action levels is exceeded, the permittee shall undertake a short-term, high-intensity monitoring program for this parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three operating days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the action level was first exceeded. Results may be appended to the DMR or transmitted under separate cover to the addresses listed on the RECORDING, REPORTING AND MONITORING page of this permit. If levels higher than the actions levels are confirmed the permit may be reopened by the Department for consideration of revised action levels or effluent limits.

The permittee is not authorized to discharge any of listed parameters at levels which may cause or contribute to a violation of water quality standards.

Outfall Number & Effluent Parameter	Action Level	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
Outfall 001				
Isophorone	1.0	lb/d	Annually	24 hr. Comp.
1,1,1-Trichloroethane	0.4	lb/d	Annually	24 hr. Comp.

(1) Whenever 24 hour composite samples are used for purgeable aromatics or purgeable halocarbons, such composites shall be made up of at least four unfiltered grab samples measuring a minimum of 40 milliliters each, collected once very eight hours over the course of the operating hours at the discharge, and composited in the laboratory under controlled conditions to minimize volatilization of the sample prior to analysis. Field compositing for volatiles shall not be practiced.

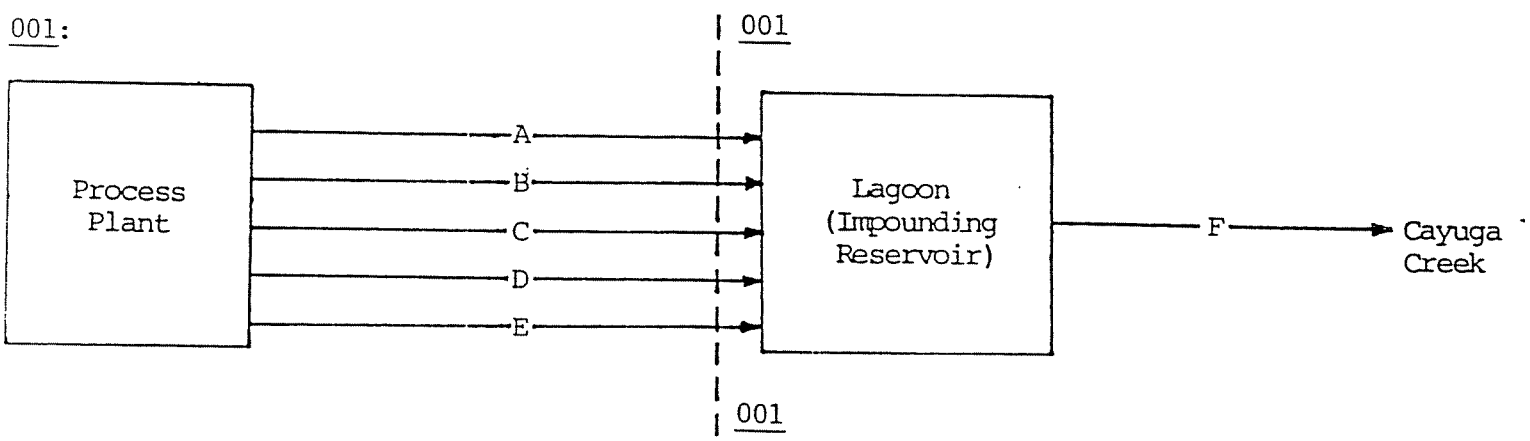
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below: (Show sampling locations and outfalls with sketch or flow diagram as appropriate)



Outfall 001 is the Flow-Weighted Composite of the discharges of the five Storm Sewer Lines (A,B,C,D,E) as reported in the SPDES renewal application. Temperature shall be measured at Location F, the point of discharge from the impounding reservoir.

Note: All process (including boiler related wastewater) and sanitary wastewaters shall be discharged to the Niagara County S.D. #1 sewer system.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS

(a) Permittee shall achieve compliance with the effluent limitations specified in this permit for the permitted discharge(s) in accordance with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
	001	Short-term, high intensity monitoring program to ascertain the presence of the following parameters: Isophrone 1,1,1-Trichloroethane This program must include at a minimum the collection and analysis of one representative effluent sample per month for three consecutive months from each discharge (A-E on page 4 of 7) into the Impounding Reservoir. One sample must be collected during a period of stormwater runoff, another during a period of no stormwater runoff and a third during either. All samples shall be collected as 24-hour composites and analyzed using EPA Method 609 for Isophrone and EPA Method 601 for 1,1,1-Trichloroethane. Sample results with corresponding flow measurements and weather conditions must be submitted to the offices noted on the following page. Following the completion of this compliance action, the permittee may petition the Department for deletion of the action level monitoring requirements for these parameters.	EDP + 6 months (6/1/91)

(b) The permittee shall submit to the Department of Environmental Conservation the required document(s) where a specific action is required in (a) above to be taken by a certain date, and a written notice of compliance or noncompliance with each of the above schedule dates, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;
3. A description of any factors which tend to explain or mitigate the noncompliance; and
4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next scheduled requirement on time.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS (continued)

(c) The permittee shall submit copies of the written notice of compliance or noncompliance required herein to the following offices:

New York State Department of Environmental Conservation
Division of Water
Bureau of Wastewater Facilities Operations
50 Wolf Road
Albany, New York 12233-3506

Regional Water Engineer
New York State Department of Environmental Conservation
Region 9
600 Delaware Avenue
Buffalo, New York 14202

Niagara County Health Department
5467 Upper Mountain Road
Lockport, New York 14094

The permittee shall submit copies of any engineering reports, plans of study, final plans, as-built plans, infiltration-inflow studies, etc. required herein to the New York State Department of Environmental Conservation Regional Office specified above unless otherwise specified in this permit or in writing by the Department or its designated field office.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized, signed and retained for a period of three years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also;**

[X] (if box is checked) monitoring information required by this permit shall be summarized and reported by submitting completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

Send the **original** (top sheet) of each DMR page to:

Department of Environmental Conservation
Division of Water
Bureau of Wastewater Facilities Operations
50 Wolf Road
Albany, New York 12233-3506

Phone: (518) 457-3790

Niagara County Health Dept.
5467 Upper Mountain Road
Lockport, New York 14094

Send the **first copy** (second sheet) of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer - Region 9
600 Delaware Avenue
Buffalo, New York 14202

c) A monthly "Wastewater Facility Operation Report..." (form 92-15-7) shall be submitted (if box is checked) to the [ ] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency listed above.

d) **Noncompliance** with the provisions of this permit shall be reported to the Department as prescribed in the attached General Conditions (Part II)

e) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

f) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.

g) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

h) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.

i) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences , The Nelson A. Rockerfeller Empire State Plaza, Albany, New York 12201.

REFERENCE 21

Carborundum Abrasives Company
6600 Walmore Road
P.O. Box 350
Niagara Falls, N.Y. 14304
Telephone: 716 / 695-8120

DRAFT

October 28, 1985

Carborundum Abrasives

Mr. Ronald Gwozdek
Assistant Public Health Engineer
NIAGARA COUNTY HEALTH DEPARTMENT
5467 Upper Mountain Road
Lockport, NY 14094

Re: Carborundum Abrasive Company SPDES #NY0001716

Dear Mr. Gwozdek:

In answer to your subject letter of October 9, 1985 (received October 16, 1985), the written explanation on the DMR does explain to the best of our knowledge what happened to cause non-compliance of some of the monitored parameters. The incident was not telephoned in as a spill incident because it was discovered after the fact of happening. While the waste water outfalls were being sampled, a discoloring was noted and then an investigation was begun to determine its cause. It was found that some scrap drum consolidating had been done and signs of some scrap phenolic resin got into the storm sewer system as stated on the DMR. It was also stated that no more drum opening will be done outside. All waste consolidating will be done in a "safe" area.

Mr. Greg Wiacik of the Region 9 DEC has been out to investigate the DMR, visit the outfall site and sample the impounding reservoir outfalls. During Mr. Wiacik's inspection the outfall of the above incident did not appear cleared up as good as it was right after the drum incident. Further investigation was made and another storm sewer line was found to have a cracked joint and some plant process waste water was seeping into it. This cracked joint was repaired and the process water dammed off from the area of the storm sewer. Mr. Wiacik was informed of the investigation efforts and repair work that was done within three days of first noticing a possible problem.

I assure you, Mr. Gwozdek, that Carborundum Abrasives Company does take pollution control very seriously and I believe you can bear this out from your annual inspection of our plant and records over the past few years.

Yours truly,

A. G. Halliley
Manager, Engineering

G. F. McGee
Senior Facilities Engineer

/km

cc Mr. James J. Devald, P.E.
Mr. P. W. Inskeep
Mr. John McMahon, P.E.

REFERENCE 22

Carborundum Abrasives Company
6600 Walmore Road
P.O. Box 350
Niagara Falls, N.Y. 14304
Telephone: 716 / 695-8120

July 21, 1987

Chief, Waste Source Monitoring Section
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
Room 300
50 Wolf Road
Albany, NY 12233

RE: Discharge Monitoring Report for SPDES Permit No. NY 0001716

Dear Sir:

Enclosed are the SPDES Discharge Monitoring Report forms for the month of June 1987.

The Phenol parameter exceeded the allowable limit twice (2) and the source or sources are unknown. Discharge of the Impounding Reservoir (outfall F) was 0.010 and 0.005 mg/l phenol for the sampling period. Frontier Technical Associates, Inc., the environmental consulting and testing company selected to examine the phenol situation, has done some testing and the following actions have been completed:

1. Cross flow connecting lines from outfalls A, B, and C have been blocked off so that flow is contained separately in outfall A, B, and C respectively. Outfall B has shown a marked decrease in phenol concentration for the June sampling.

2. A previous site of drum storage had stains of phenolic resin on the area concrete. These stains were cleaned off using high pressure water equipment. All water was flushed to the plant process/sanitary sewer system.

3. A contributing branch line of outfall A near the previous storage site was dammed off and flow diverted to the plant process/sanitary sewer system, see attached plot plan sketch.

Samples taken at outfall A after the above modifications were completed showed a decrease of phenol content. The average of three samples collected, equaled 0.048 mg/l phenol. It is expected that the July sampling/monitoring results for total phenol will be greatly reduced.

For any questions regarding the investigation, contact Mr. Harty at (716) 634-2293 or Mr. McGee at (716) 695-8120.

Yours truly,

A. G. Halliley
Manager, Manufacturing Engineering

G. F. McGee
Facility Manager

/wpm
enclosures

cc: Mr. Paul Foersh, Regional Engineer - NYS DEC
Mr. James J. Devald - Niagara County Health Dept.

REFERENCE 23

To Larry Clare May 5, 1996

FROM Jim Feron

Subject NFTA Wheatfield Site # 932090
Rcra Phase I Report - 1/86?

This report is based on phenol contamination. A spill occurred in 1978 from a storage tank. This was cleaned up and SPDES criteria for phenol were met after cleanup.

Acording to Ref. 16, an inspection in June 1985 by a Niagara County Health representative, the phenol tank, reactor piping etc. have been removed - the resin used as a binder (phenol-formaldehyde) is no longer made on site it is now purchased.

The only possible source of phenol is that produced as a by-product from the EKOLON process which condenses phenol, collects it in 55 gallon drums which are disposed off-site within the 90 day storage limitation. (Ref 16)

A leak in the condenser could contribute phenol to the cooling waters and then into the impounding reservoirs. SPDES sampling should pick up the possibility of traces of phenol.

Without the danger of a phenol spill - there is no hazardous material or waste that can contaminate ground or surface water.

There is no ground or surface water use within 3 miles. Cayuga Creek, which accepts the impounding reservoir's outflow empties into the Niagara River — The City of Niagara Falls water intake is seven miles from this site.

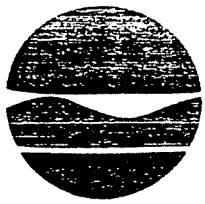
With the removal of the major contaminant, phenol, I see no reason for a Phase II investigation of the site - it should be de-listed.

(There is little info in our file on this.)

Jim Keron

REFERENCE 24

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202



Thomas C. Jorling
Commissioner

TO: Joseph Sciascia

FROM: Abul Barkat AB

SUBJECT: NFTA Site #932090

DATE: October 5, 1990

In an effort to determine whether the site needs reclassification, I have reviewed our files of the subject site. From the data in files, it appears that Albany has not yet made any plan for either reclassification or further investigation of the site. The quarterly progress report (April 30, 1990), however indicates that a Phase II is planned. The Phase I study report was already finalized in 1987 and it recommended a Phase II study. As a result of my review, I concur with that recommendation. Comments are as follows:

Background

A 2 1/2 acre impounding reservoir which is located on NFTA property receives storm/ground water from the Carborundum Abrasive Plant area through a number of pipe inlets. See the attached map. The inlet discharge is monitored by Carborundum under SPDES permit. The water from the impounding reservoir is discharged to the Cayuga Creek which is a tributary to the Niagara River. Frequent permit violations have been noted all along the monitoring period since last 10 years. Six thousand gallons of phenol had spilled in 1978/79. Division of Water had noted another phenol spill of undetermined quantity in 1985. The 1978/79 spill had resulted in phenol concentration of the reservoir sediment as high as 24,995 PPM. The company claims that it had treated the reservoir water by pumping it to carbon treatment filters and consequently reduced the sediment concentration of phenol to 6 1/2 PPM. The impact of 1985 spill is not known. In 1989, DEC collected sediment samples on three locations from the reservoir close to its bank. The chemical analysis of the samples indicates phenol concentration of 16.3 PPM in one of the samples. The other samples had concentration of 1.8 and 9.3 PPM respectively. In 1982 USGS had collected two soil samples at a little distance away from the reservoir and found only low levels of pthalates in the samples. No groundwater sample data is available.

Conclusion

1. Sediment samples from the main area of the reservoir have not been collected for chemical analysis. High phenol concentration may exist there.

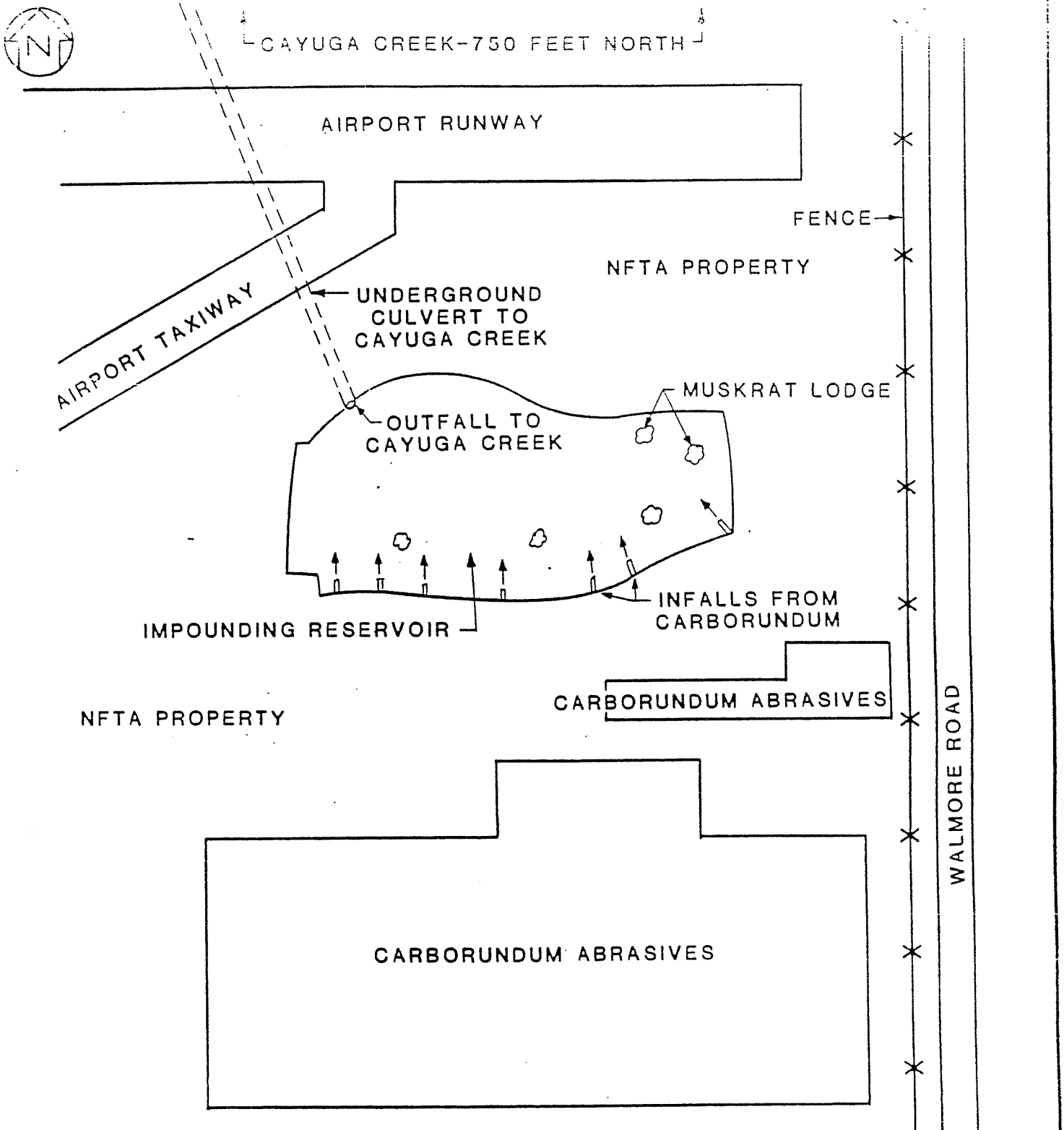
2. Impact on the ground water from the phenol concentration in the impounding reservoir is unknown.

Recommendation

1. Conduct a limited Phase II investigation to determine the extent of contamination in the impounding reservoir and its impact on ground water. Collect about 9 to 12 sediment samples to cover the entire 2 1/2 acres of the reservoir area. Install at least three monitoring wells, one upstream and two down stream to determine ground water contamination status and its flow pattern.

2. We may ask NFTA to conduct the investigation under a Consent Order. If not then we should plan the investigation through our contractors.

ad

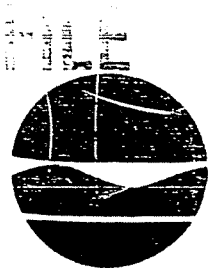


RECRA RESEARCH INC. BUFFALO, NEW YORK	Scale: NTS	NIAGARA FRONTIER TRANSPORTATION AUTHORITY SITE TOWN OF WHEATFIELD NEW YORK	SITE MAP N.Y.S. SUPERFUND PHASE I
	By / Date		
	Dwn. MS 2/86		
	Ckd.		
	Ap'vd.		
	Rev.	Project No. 5C280417	FIGURE 2

REFERENCE 25

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202

(25)



Thomas C. Jorling
Commissioner

MEMORANDUM

TO: Walter Demick

FROM: Joseph Sciascia

SUBJECT: NFTA Site 932090

DATE: October 9, 1990

Attached please find Abul Barkat's October 5, 1990 memo recommending additional study for the subject site. It seems there are enough questions related to the residual contamination from prior phenol spills to warrant site assessment work.

Please advise as to whether this will be possible and if so an approximate time frame for doing the work.

ad

REFERENCE 26

Carborundum Abrasives Company
6600 Walmore Road
P.O. Box 350
Niagara Falls, N.Y. 14304
Telephone: 716 / 695-8120

26

DGL
AJS
AJS -
First round more
fine D investigation

Carborundum Abrasives

March 21, 1991

Chief, Waste Source Monitoring Service
NYS Department of Environmental Conservation
50 Wolf Road - Room 320
Albany, NY 12233-3506

Re: Discharge Monitoring Report For SPDES
Permit No. NYS 0001716

Dear Sir:

Enclosed, are the SPDES discharge monitoring report forms for the month of February 1991. All parameters were within the the allowable limits.

One round of investigation for phenol contamination in "D" line has been completed. Results are not conclusive of any definite phenol infiltration, although one sampling point did indicate some phenol present. This sampling point's water flow sources will be studied and watched closely during the second round of investigation.

For questions regarding the report, contact Mr. McGee at (716) 695-8120.

Yours truly,

David J. Fink
Manager, Operations

Gerald F. McGee
Facility engineer

Enclosure

cc: David Leemhuis - Regional Engineer - NYDEC
Ronald Gwodzek - Niagara County Health Department
Kevin P. Fogerty - Norton - AB-1
Paul W. Inskeep - C.A.C.
P. Michael Terlecky - S.A.I.C.

1.0 Introduction

On January 18, 1991, Round I of a three (3) round Phenol Loading Investigation was conducted at the Carborundum Abrasives, Walmore Road, Niagara Falls, New York facility. Composite samples and flow measurements were collected along designated points in the "D" line sewer. The purpose of the monitoring investigation is to pinpoint areas of phenol loading within the sewer system. Once these areas are determined, measures will be taken to reduce the levels of phenol being introduced into the outfall network.

2.0 Personnel

On January 18, 1991, Scott Abel, Senior Field Technician, and Dennis Hoyt, Project Engineer, from Advanced Environmental Services, Inc., collected water samples to be analyzed for Total Recoverable Phenols. Mr. Gerald McGee, Senior Facilities Engineer at Carborundum Abrasives, was present at various times throughout the day to comment and observe on the sampling event.

3.0 Sampling Background and Collection

Prior to the sampling event, 45° V-Notch weirs were constructed and installed by representatives of Advanced Environmental Services, Inc., at four (4) of the monitoring points along the D-Line Sewer for the purpose of determining flow levels at each point. See Appendix B for diagrams showing the construction of the weirs and the sampling locations. The sampling locations were chosen based upon sewer line influences, such as where roof drains discharged within the line, where non-contact cooling water discharged, and the location of the manholes.

On January 18, 1991, water samples were collected for a period of twelve hours, starting at 4:00 am and concluding at 3:30 pm. The samples were collected at one (1) hour intervals from five (5) monitoring points. Every hour a 250 milliliter sample was collected in an amber 1000 milliliter glass bottle preserved with H_2SO_4. After four (4) hours had passed, a new amber bottle was used to collect the sample. At the completion of the twelve hour sampling event, there were three 4 hour composite samples from each monitoring point. In addition to the original samples, two blind duplicate samples were collected.

4.0 Results

The results of the first round of the Phenol Loading Investigation appears to be inconclusive. During the first composite round (from 4:25 am to 7:30 am), no detectable quantities of phenol were measured for three of the five sampling points. Point 2 had the only measurable amount of phenol present at a level of 0.065 mg/l or 0.0075 lb/day. During the second round points 4 and 2 had detectable levels of phenol and all other points had non-detectable levels. Point 4 had 0.007 mg/l (0.0009 lb/day) and point 2 had 1.67 mg/l (0.1650 lb/day). The increase in detectable levels of phenol could be attributed to the start-up of manufacturing processes. During the third round points 4, 2, and 1, as well as the blind duplicate samples A and B (point 3 and point 1 respectively) had low levels of recoverable phenols present in the water. Point 4 had 0.016 mg/l (0.0022 lb/day), point 2 had 0.005 mg/l (0.0035 lb/day), point 1 had 0.004 mg/l (<0.0001 lb/day), blind duplicate A (pt. 3) had 0.004 mg/l (0.0005 lb/day), and blind duplicate B (pt. 1) had 0.006 mg/l (<0.0001 lb/day).

It is difficult to make any type of correlation between the start-up of the manufacturing process due to the limited amount of available data. It does appear that the presence of recoverable phenols at nearly ever monitoring point during the third round of collection seams to indicate that as the day progresses, the levels of recoverable phenol slowly increases throughout the system. Table I, located in Appendix C, summarizes the daily flow in gallons per day and the lb/day phenol loading. Also found in Appendix C is Table II indicating the hourly flows at each monitoring point.

It is anticipated that a more appropriate conclusion can be made once the second and third investigation rounds are completed.

REFERENCE 27

(27)

Toxicological Profile for

PHENOL

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

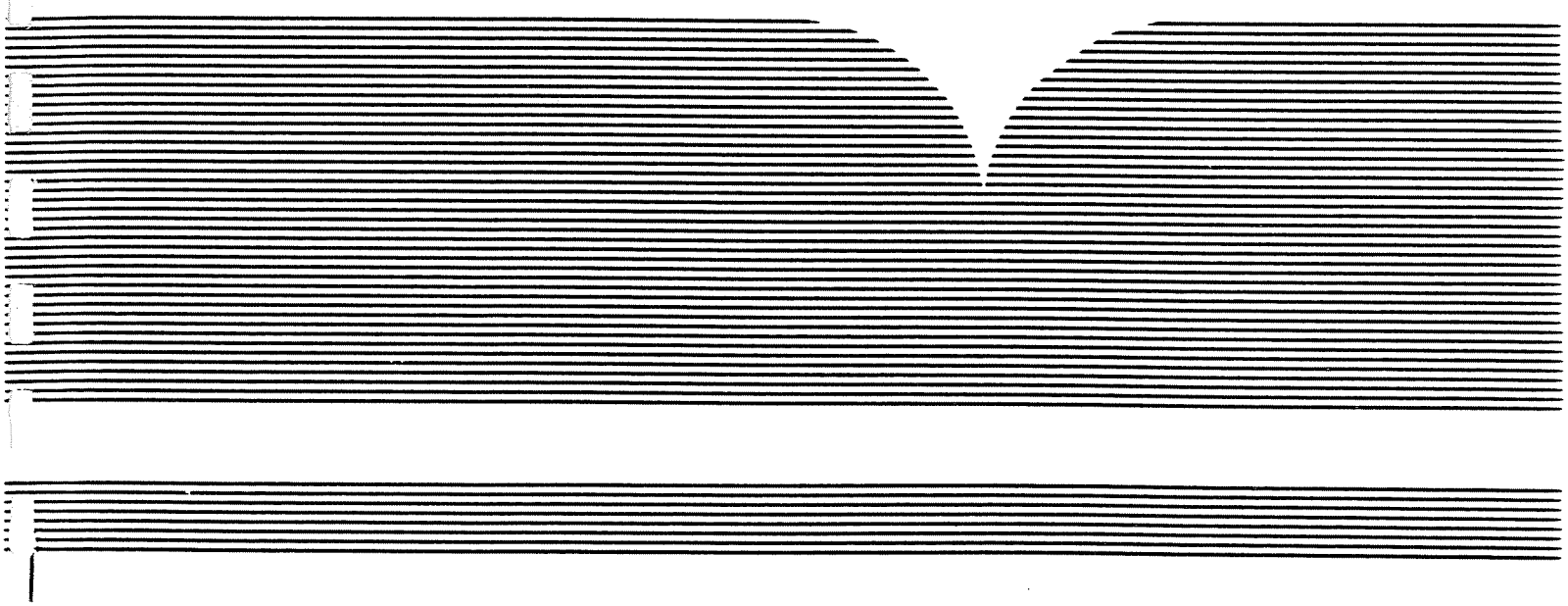
REFERENCE 28

PB89-132112

HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENOL

(U.S.) Environmental Protection Agency
Cincinnati, OH

Feb 87



U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
NTIS®

EPA/600/X-87/121
February 1987

HEALTH AND ENVIRONMENTAL EFFECTS PROFILE FOR PHENOL

ENVIRONMENTAL CRITERIA AND ASSESSMENT OFFICE
OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OH 45268

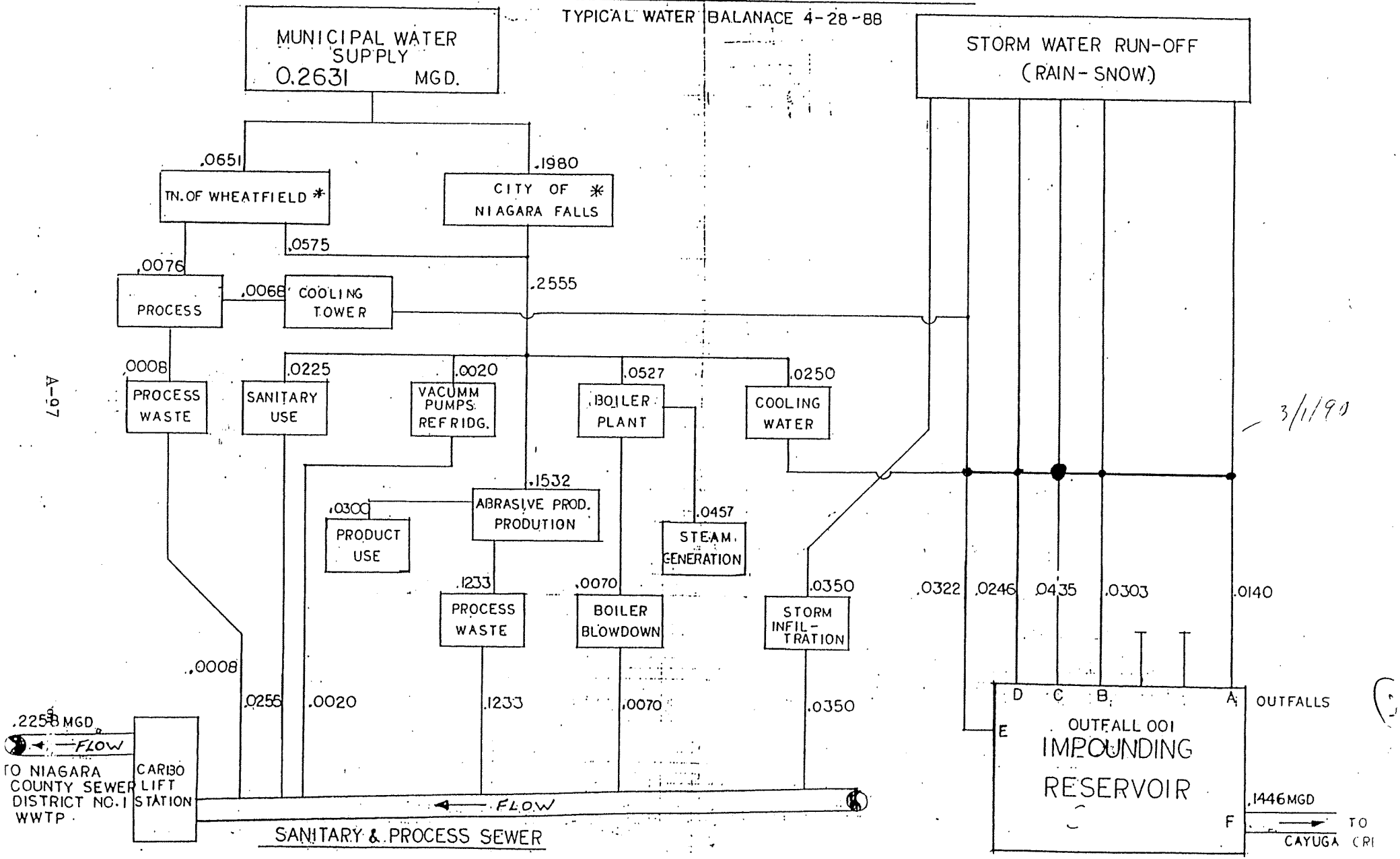
REFERENCE 29

PDES PERMITT APPLICATION
ORM 2C, ITEM II-A

SPDES NO. NY0001716

CARBORUNDUM - COATED OPERATION
TN. WHEATFIELD, NIAGARA COUNTY, NEW YORK

TYPICAL WATER BALANACE 4-28-88



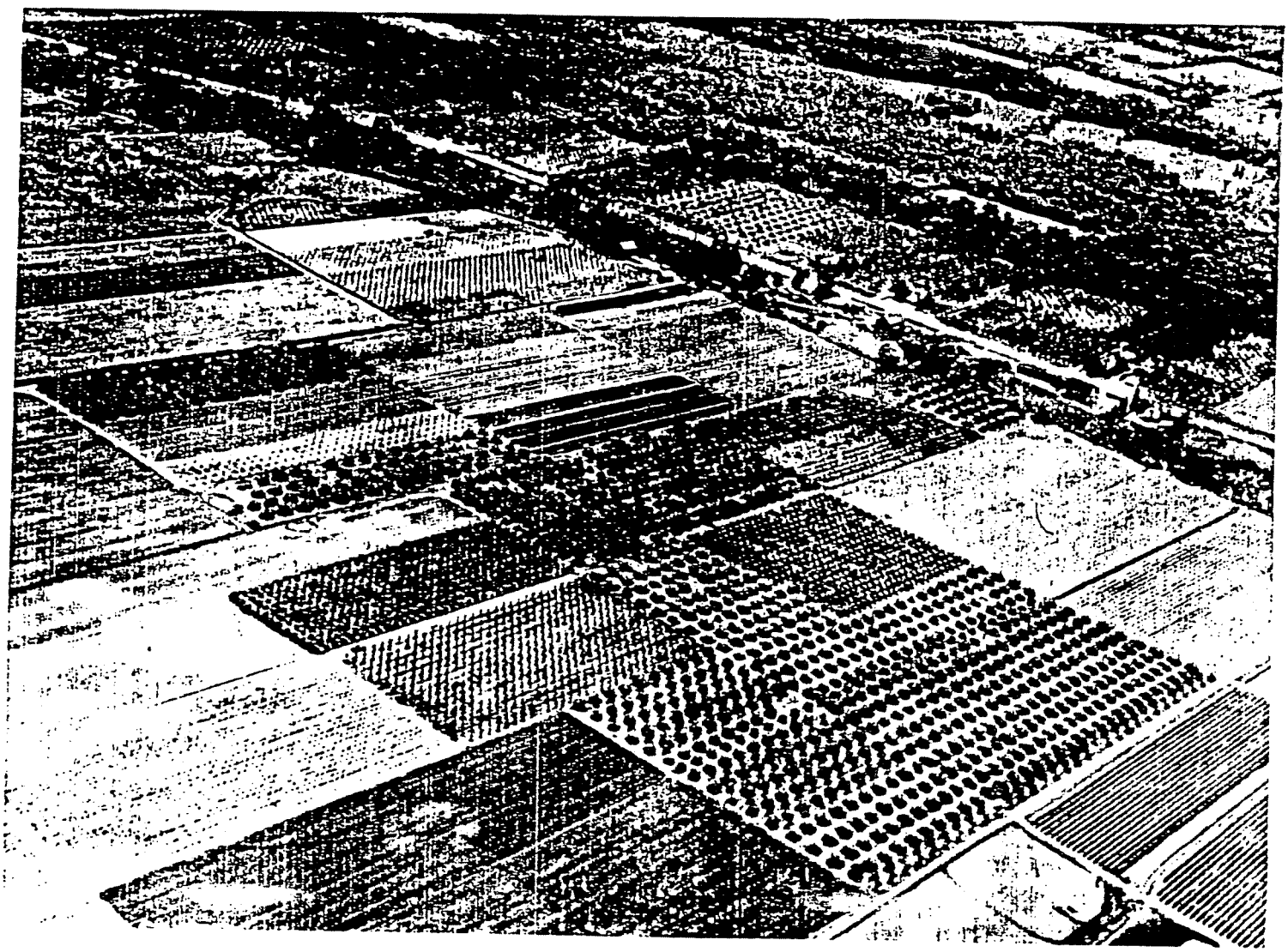
3/1/90

ALL FLOWS EXPRESSED IN MILLONS OF GALLONS PER DAY (MGD)
* FLOWS MAY VARY BASED UPON PROCESS REQUIREMENTS AND WATER RATES

REFERENCE 30

SOIL SURVEY OF

Niagara County, New York



United States Department of Agriculture
Soil Conservation Service
In cooperation with
Cornell University Agricultural Experiment Station

Issued October 1972

REFERENCE 31

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Niagara Frontier Transportation Authority . Site No. 932090
Wheatfield Niagara County

DATE: March 1986

Prepared for:
New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Henry G. Williams, *Commissioner*

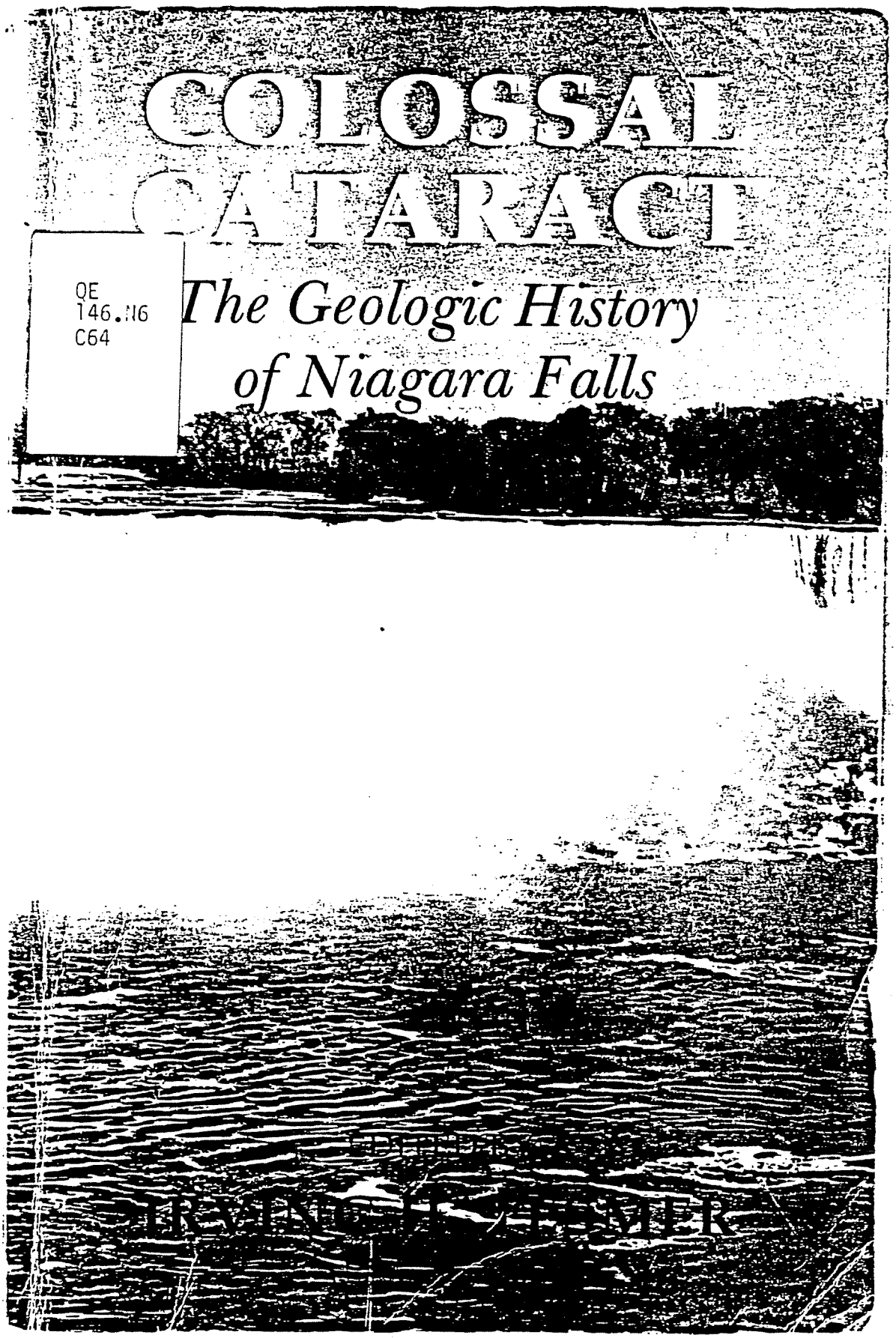
Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E., *Director*

By:

A-101

Recra Environmental, Inc.

REFERENCE 32



REFERENCE 33

INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME:	Niagara Frontier Transportation Authority
PERSON CONTACTED:	Mr. Gerald McGee
AFFILIATION:	Carborundum Abrasives Company
ADDRESS:	6600 Walmore Road Niagara Falls, New York 14304
TYPE OF CONTACT:	Telephone
I.D. NUMBER:	932090
DATE:	August 29, 1991
PHONE NUMBER:	(716) 695-8120
CONTACT PERSON(S):	C. Eich

INTERVIEW SUMMARY:

None of the phenol spilled in 1978 came in contact with the ground surface.

Some phenol may have come in contact with the ground during the 1985 drum consolidating operation, and entered the sanitary sewer.

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment Engineering, P.C. interviewer(s) (as revised below, if necessary).
Revisions: (please write in any corrections needed to the above transcript)

Signature _____ Date _____

REFERENCE 34

ecology and environment
engineering, p.c.
BUFFALO CORPORATE CENTER
368 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060

September 3, 1991

Mr. Gerald McGee
Facility Manager
Carborundum Abrasives Company
6600 Walmore Road
Niagara Falls, New York 14304

Dear Mr. McGee:

Regarding our telephone conversation on August 29, 1991, I am writing this letter to request copies of the SPDES Bi-monthly Monitoring Sample Results for months following the phenol spills in 1978 and 1985, which showed elevated levels of phenol. I would also like to request the Discharge Monitoring Reports data on phenol concentrations for February 1989 to March 1991.

Ecology and Environment, Inc. (E & E) has been contracted by the New York State Department of Environmental Conservation (NYSDEC) to conduct a Preliminary Site Assessment at the NFTA Reservoir. NYSDEC has requested E & E to obtain the above mentioned information following review of the draft report for the NFTA site. I would appreciate if you could forward this information to Tom Lewandowski at E & E at your earliest convenience.

If you have any questions, please do not hesitate to contact me or Tom Lewandowski at 716/684-8060.

Sincerely,

Thomas Lewandowski
for.

Chad Eich
Assistant Project Manager

CE:tms

02:3423-09/03/91-D1

APPENDIX B
SITE INSPECTION REPORT

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. SITE NAME AND LOCATION

01 Site Name (legal, common, or descriptive name of site)	02 Street, Route No., or specific location identifier
Niagara Frontier Transportation Authority (NFTA)	Niagara Falls International Airport: Walmore Road

03 City	04 State	05 Zip Code	06 County	07 County Code	08 Cong. Dist.
Wheatfield	New York	14304	Niagara	063	32

09 Coordinates Latitude	Longitude	10 Type of Ownership (check one)
43° 06' 30"	78° 55' 49"	[X] A. Private [ ] B. Federal _____ [ ] C. State [ ] D. County [ ] E. Municipal [ ] F. Other _____ [ ] G. Unknown

III. INSPECTION INFORMATION

01 Date of Inspection	02 Site Status	03 Years of Operation
05 / 01 / 91 (Month Day Year)	[X] Active [ ] Inactive	1948 (Beginning Year) | ongoing/present (Ending Year) [ ] Unknown

04 Agency Performing Inspection (check all that apply)
[ ] A. EPA [ ] B. EPA Contractor _____ (name of firm) [ ] C. Municipal [ ] D. Municipal Contractor _____ (name of firm)
[ ] E. State [X] F. State Contractor Ecology and Environment Engineering, P.C. (name of firm) [ ] G. Other _____ (specify)

05 Chief Inspector	06 Title	07 Organization	08 Telephone No.
Scott Thorsell	Associate Chemist Hydrogeologist	E & E	(716) 684-8060
09 Other Inspectors	10 Title	11 Organization	12 Telephone No.
Sandra Lare	Environmental Analyst	E & E	(716) 684-8060
			( )
			( )
			( )

13 Site Representatives Interviewed	14 Title	15 Address	16 Telephone No.
Anthony J. Serianni	NFTA	Niagara Falls International Airport	(716) 297-4494
Jack Schumate	NFTA Employee	Niagara Falls International Airport	(716) 297-4494
Gerald McGee	Plant Engineer	Carborundum Abrasives	(716) 695-8120
			( )

17 Access Gained by (check one)	18 Time of Inspection	19 Weather Conditions
[X] Permission [ ] Warrant	0900	Temperature 60°F, dry, sunny, strong breeze from the west

IV. INFORMATION AVAILABLE FROM

01 Contact	02 Of (Agency/Organization)	03 Telephone No.
Abul Barkat	New York State Department of Environmental Conservation	(716) 847-4590

04 Person Responsible for Site Inspection Form	05 Agency	06 Organization	07 Telephone No.	08 Date
Scott Thorsell		E & E	(716) 684-8060	05 / 03 / 91 (Month Day Year)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 Physical States (check all that apply)

[X] A. Solid
[ ] B. Powder, Fines
[ ] C. Sludge
[ ] D. Other _____
[ ] E. Slurry
[X] F. Liquid
[ ] G. Gas

02 Waste Quantity at Site (measure of waste quantities must be independent)

Tons unknown*
Cubic Yards _____
No. of Drums _____

*SPDES permit allows 0.2 lb/day

03 Waste Characteristics (check all that apply)

[X] A. Toxic
[ ] B. Corrosive
[ ] C. Radioactive
[ ] D. Persistent
[X] E. Soluble
[ ] F. Infectious
[ ] G. Flammable
[ ] H. Ignitable
[ ] I. Highly volatile
[ ] J. Explosive
[ ] K. Reactive
[ ] L. Incompatible
[ ] M. Not applicable

III. WASTE TYPE

Category	Substance Name	01 Gross Amount	02 Unit of Measure	03 Comments
SLU	Sludge			
OLW	Oily waste			
SOL	Solvents			
PSD	Pesticides			
OOC	Other organic chemicals			
IOC	Inorganic chemicals			
ACD	Acids	Unknown/SPDES	allows 0.2 lb/day	phenol
BAS	Bases			
MES	Heavy metals	Unknown		Zinc

IV. HAZARDOUS SUBSTANCES (see Appendix for most frequently cited CAS Numbers)

01 Category	02 Substance Name	03 CAS Number	04 Storage/Disposal Method	05 Concentration	06 Measure of Concentration
	Phenol	108-95-2	Spill	Raw product - liq.	

V. FEEDSTOCKS (see Appendix for CAS Numbers)

Category	01 Feedstock Name	02 CAS Number	Category	01 Feedstock Name	02 CAS Number
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

NYSDEC Region 9 files

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. Groundwater Contamination — 02 [ ] Observed (date _____) — [X] Potential — [ ] Alleged
03 Population Potentially Affected: Unknown — 04 Narrative Description:

Private groundwater wells exist within 3 miles of the site. Public water is also available.

01 [X] B. Surface Water Contamination — 02 [X] Observed (date December 19, 1978 and 1985) — [X] Potential — [ ] Alleged
03 Population Potentially Affected: 0 — 04 Narrative Description:

In 1978, 6,000 gallons of phenol were spilled; about 600 gallons entered the reservoir. An emergency cleanup was instigated and cleanup activities continued until May 9, 1979. By April 1979, phenol levels in the pond had decreased to levels below permit limits; however, the SPDES phenol limit has been exceeded since then. Potentially affected waters are the reservoir and Cayuga Creek. A minor spill of unknown quantity occurred in 1985 as reported to NYSDEC Region 9, Division of Water.

01 [X] C. Contamination of Air — 02 [X] Observed (date May 1, 1991) — [ ] Potential — [ ] Alleged
03 Population Potentially Affected: 0 — 04 Narrative Description:

HNu readings of 4,000 to 5,000 ppm above background levels were obtained from warm air emitted from outfall C during site inspection. This pipe discharges non-contact cooling water from air compressors. This water is obtained from the public water supply.

01 [ ] D. Fire/Explosive Conditions — 02 [ ] Observed (date _____) — [ ] Potential — [ ] Alleged
03 Population Potentially Affected: 4,000 within 2 miles — 04 Narrative Description:

None suspected, none observed. There are approximately 1,000 buildings (businesses and homes) within a 2-mile radius.

01 [ ] E. Direct Contact — 02 [ ] Observed (date _____) — [ ] Potential — [ ] Alleged
03 Population Potentially Affected: 0 — 04 Narrative Description:

NFTA property is fenced off; any admittance to area must be authorized at gate. Ducks sometimes utilize the reservoir however. There is an active effort to control ducks on NFTA property.

01 [ ] F. Contamination of Soil — 02 [ ] Observed (date _____) — [X] Potential — [ ] Alleged
03 Area Potentially Affected: sediments in the pond and Cayuga Creek — 04 Narrative Description:

In 1982, analysis of USGS soil borings revealed the presence of elevated levels of three priority pollutant organics (phthalates) on site. In sediments sampled in 1989 by NYSDEC, phenols were detected.

01 [X] G. Drinking Water Contamination — 02 [ ] Observed (date _____) — [X] Potential — [ ] Alleged
03 Population Potentially Affected: Unknown — 04 Narrative Description:

Private groundwater wells are located within 3 miles. It is not known if the water is used for drinking.

01 [ ] H. Worker Exposure/Injury — 02 [ ] Observed (date _____) — [ ] Potential — [ ] Alleged
03 Workers Potentially Affected: 0 — 04 Narrative Description:

Workers potentially exposed to pond are limited to NFTA and CAC employees. The reservoir is well removed from work areas; exposure is expected to be minimal.

01 [ ] I. Population Exposure/Injury — 02 [ ] Observed (date _____) — [ ] Potential — [ ] Alleged
03 Population Potentially Affected: 0 — 04 Narrative Description:

None on record, none observed.

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. HAZARDOUS CONDITIONS AND INCIDENTS (Cont.)

01 [X] J. Damage to Flora — 02 [X] Observed (date May 1, 1991) — [ ] Potential — [ ] Alleged
04 Narrative Description:

Possibly bleached, stressed grassy vegetation in pond at outfall C.

01 [ ] K. Damage to Fauna — 02 [X] Observed (date May 1, 1991) — [ ] Potential — [ ] Alleged
04 Narrative Description:

None observed. Frogs and fish were seen in the pond during the inspection.

01 [ ] L. Contamination of Food Chain — 02 [X] Observed (date May 1, 1991) — [ ] Potential — [ ] Alleged
04 Narrative Description:

None on record, none observed.

01 [ ] M. Unstable Containment of Wastes (spills/runoff/standing liquids, leaking drums) — 02 [ ] Observed (date _____) — [X] Potential — [ ] Alleged
03 Population Potentially Affected: _____
04 Narrative Description:

"Containment" is in unlined reservoir discharging through culvert to Cayuga Creek. SPDES permit regulates levels of phenol discharged into reservoir. Possible migration of phenol to the creek.

01 [ ] N. Damage to Off-site Property — 02 [ ] Observed (date _____) — [ ] Potential — [ ] Alleged
04 Narrative Description:

None documented

01 [ ] O. Contamination of Sewers, Storm Drains, WWTPs — 02 [ ] Observed (date _____) — [X] Potential — [ ] Alleged
04 Narrative Description:

90% of the December 1978 phenol spill (or 5,400 gallons) were discharged to the sanitary sewer (Niagara County Sewer District #1). Cleanup activities included flushing the sewer lines; however, the presence of residual contamination is unknown.

01 [ ] P. Illegal/Unauthorized Dumping — 02 [X] Observed (date May 1, 1991) — [ ] Potential — [ ] Alleged
04 Narrative Description:

None observed; not likely

05 Description of Any Other Known, Potential, or Alleged Hazards

III. TOTAL POPULATION POTENTIALLY AFFECTED Unknown

IV. COMMENTS

V. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

Engineering-Science, Inc. Phase I report (1986), PSA site inspection, interviews, NYSDEC and county files

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. PERMIT INFORMATION

01 Type of Permit Issued (check all that apply)	02 Permit Number	03 Date Issued	04 Expiration Date	05 Comments
[ ] A. NPDES				
[ ] B. UIC				
[ ] C. AIR				
[ ] D. RCRA				
[ ] E. RCRA Interim Status				
[ ] F. SPCC Plan				
[X] G. State (specify) SPEDES	NY 000-1716	12/1/90	12/1/95	SPDES
[ ] H. Local (specify)				
[ ] I. Other (specify)				
[ ] J. None				

III. SITE DESCRIPTION

01 Storage Disposal (check all that apply)	02 Amount	03 Unit of Measure
[ ] A. Surface Impoundment		
[ ] B. Piles		
[ ] C. Drum, Aboveground		
[ ] D. Tank, Aboveground		
[ ] E. Tank, Belowground		
[ ] F. Landfill		
[ ] G. Landfarm		
[ ] H. Open Dump		
[X] I. Other pond (specify)	unknown	

04 Treatment (check all that apply)

- [ ] A. Incineration
- [ ] B. Underground Injection
- [ ] C. Chemical/Physical
- [ ] D. Biological
- [ ] E. Waste Oil Processing
- [ ] F. Solvent Recovery
- [ ] G. Other Recycling Recovery
- [ ] H. Other _____ (specify)

05 Other

[X] Buildings On Site
Niagara Falls International Airport

Storage shed

06 Area of Site

2.75 Acres

07 Comments

IV. CONTAINMENT

01 Containment of Wastes (check one)

[ ] A. Adequate, Secure [X] B. Moderate [ ] C. Inadequate, Poor [ ] D. Insecure, Unsound, Dangerous

02 Description of Drums, Diking, Liners, Barriers, etc.

Reservoir serves as a settling basin for Carborundum Abrasives storm and cooling water.

V. ACCESSIBILITY

01 Waste Easily Accessible [ ] Yes [X] No

02 Comments

Site located within closed boundary fence that marks Niagara Falls International Airport.

VI. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

County files, interviews, PSA site inspection

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. DRINKING WATER SUPPLY

01 Type of Drinking Supply (check as applicable)

	Surface	Well
Community	A. [X]	B. [ ]
Non-community	C. [ ]	D. [X]

02 Status

Endangered	Affected	Monitored
A. [ ]	B. [ ]	C. [ ]
D. [ ]	E. [ ]	F. [ ]

03 Distance to Site

A >3 (mi)

B <0.5 (mi)

III. GROUNDWATER

01 Groundwater Use in Vicinity (check one)

[ ] A. Only Source for Drinking [X] B. Drinking (other sources available) Commercial, Industrial, Irrigation (no other water sources available) [ ] C. Commercial, Industrial, Irrigation (limited other sources available) [ ] D. Not Used, Unusable

02 Population Served by Groundwater 0

03 Distance to Nearest Drinking Water Well _____ (mi)

04 Depth to Groundwater	05 Direction of Groundwater Flow	06 Depth to Aquifer of Concern	07 Potential Yield of Aquifer	08 Sole Source Aquifer
10 - 13 (ft)	Assumed to flow north to Cayuga Creek	unknown (ft)	unknown (gpd)	[ ] Yes [X] No [ ] Unknown

09 Description of Wells (including usage, depth, and location relative to population and buildings)

Two private wells are known to exist within 0.5 mile of the site. Both residences are supplied with public water. One of the wells is used to irrigate fruit trees. Use of the other well is not known. Wells are used for drinking water on the Tuscarora Indian Reservation located approximately three miles north of the site.

10 Recharge Area

[ ] Yes | Comments:
[ ] No |

11 Discharge Area

[ ] Yes | Comments:
[ ] No |

IV. SURFACE WATER

01 Surface Water (check one) (Cayuga Creek) Designated use/quality; secondary contact recreation, Class D.

[X] A. Reservoir, Recreation, Drinking Water Source [ ] B. Irrigation, Economically Important Resources [ ] C. Commercial, Industrial [ ] D. Not Currently Used

02 Affected/Potentially Affected Bodies of Water

Name:	Affected	Distance to Site
Reservoir	[ ]	0 (mi)
Cayuga Creek	[ ]	0.2 (mi)
Niagara River	[ ]	4 (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 Total Population Within

One (1) Mile of Site	Two (2) Miles of Site	Three (3) Miles of Site
A. ≈1,000 No. of Persons	B. ≈4,000 No. of Persons	C. >20,000 No. of Persons

02 Distance to Nearest Population: <0.5 (mi)

03 Number of Buildings Within Two (2) Miles of Site: 500 - 1,000

04 Distance to Nearest Off-Site Building: 400 (ft) (Walmore Road)

05 Population Within Vicinity of Site (provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Niagara Falls Air Force Base 0.38 mile northwest, industrial area to south, Niagara Falls airport north and west, homes and agricultural area to the east.

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

VI. ENVIRONMENTAL INFORMATION

01 Permeability of Unsaturated Zone (check one)

[ ] A. Impermeable (less than 10^{-6} cm/sec) [X] B. Relatively Impermeable (10^{-4} - 10^{-6} cm/sec) [ ] C. Relatively Permeable (10^{-2} - 10^{-4} cm/sec) [ ] D. Very Permeable (greater than 10^{-2} cm/sec)

02 Permeability of Bedrock (check one)

[ ] A. Impermeable (less than 10^{-6} cm/sec) [ ] B. Relatively Impermeable (10^{-4} - 10^{-6} cm/sec) [X] C. Relatively Permeable (10^{-2} - 10^{-4} cm/sec) [ ] D. Very Permeable (greater than 10^{-2} cm/sec)

03 Depth to Bedrock	04 Depth of Contaminated Soil Zone	05 Soil pH
10-13 (ft)	unknown/site is a reservoir (ft)	unknown

06 Net Precipitation	07 One Year 24-Hour Rainfall	08 Slope: Site Slope	Direction of Site Slope	Terrain Average Slope
9 (in)	2.1 (in)	<3 %		<3 %

09 Flood Potential

Site is in N/A Year Floodplain

10 [ ] Site is on Barrier Island, Coastal High Hazard Area, Riverine Floodway No

11 Distance to Wetlands (5 acre minimum)

ESTUARINE No OTHER

A. _____ (mi) B. 3 state wetlands within 1.5-2 (mi)

12 Distance to Critical Habitat (of endangered species)

>1 (mi)

Endangered Species: N/A

13 Land Use in Vicinity

Distance to:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. <0.1 (mi)	B. 0.2 (mi)	C. <1 (mi)	D. <1 (mi)

14 Description of Site in Relation to Surrounding Topography

The Reservoir is located on airport property. Land in surrounding area is relatively flat, and at slightly higher elevation. Reservoir drains north via pipe under airport runway to Cayuga Creek, but no discernible natural streams/drainages flowing into pond were noted.

VII. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

Engineering-Science, Inc. Phase I report, PSA site inspection

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 6 - SAMPLE AND FIELD INFORMATION	I. IDENTIFICATION	
	01 State NY	02 Site Number 932090

II. SAMPLES TAKEN - No samples taken during S.I.

Sample Type	01 Number of Samples Taken	02 Samples Sent To	03 Estimated Date Results Available
Groundwater			
Surface Water			
Waste			
Air			
Runoff			
Spill			
Soil			
Vegetation			
Other			

III. FIELD MEASUREMENTS TAKEN

01 Type	02 Comments
	HNu monitoring for organic and inorganic vapors, continuous during site inspection May 1, 1991. Reading of 4,000 to 5,000 ppm above background level at discharge pipe C. Minirad monitoring for radiation during SI. No readings above background level.

IV. PHOTOGRAPHS AND MAPS

01 Type [X] Ground [X] Aerial Sandra Lare - E & E Niagara County Health Dept.	02 In Custody of _____ (name of organization or individual)

03 Maps [ ] Yes [ ] No	04 Location of Maps _____

V. OTHER FIELD DATA COLLECTED (provide narrative description of sampling activities)

VI. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

PSA site inspection, Niagara County Health Department

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. CURRENT OWNER(S)

01 Name	02 D&B Number		08 Name	09 D&B Number	
Niagara Frontier Transportation Authority					
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code
181 Ellicott Street					
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code
Buffalo	NY	14203			

PARENT COMPANY (if applicable) N/A

01 Name	02 D&B Number		08 Name	09 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	03 State	14 Zip Code

01 Name	02 D&B Number		08 Name	09 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code
05 City	06 State	07 Zip Code	12 City	13 State	14 Zip Code

III. PREVIOUS OWNER(S) (list most recent first)

01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

IV. REALTY OWNER(S) (if applicable, list most recent first)

01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

V. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. CURRENT OPERATOR (provide if different from owner)

01 Name	02 D&B Number	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	05 City	06 State	07 Zip Code	08 Years of Operation	09 Name of Owner
Carborundum Abrasives Company		6600 Walmore Road		Wheatfield	NY	14304	~1949 - Present	The Carborundum Company

OPERATOR'S PARENT COMPANY (if applicable)

10 Name	11 D&B Number	12 Street Address (P.O. Box, RFD #, etc.)	13 SIC Code	14 City	15 State	16 Zip Code
The Carborundum Company		Carborundum Center		Niagara Falls	NY	14302

III. PREVIOUS OPERATOR(S) (list most recent first; provide if different from owner) N/A

01 Name	02 D&B Number	03 Street Address (P.O. Box, RFD #, etc.)	04 SIC Code	05 City	06 State	07 Zip Code	08 Years of Operation	09 Name of Owner During this Period

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

10 Name	11 D&B Number	12 Street Address (P.O. Box, RFD #, etc.)	13 SIC Code	14 City	15 State	16 Zip Code

IV. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. ON-SITE GENERATOR

01 Name	02 D&B Number	
Carborundum Abrasives Company		
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
6600 Walmore Road		
05 City	06 State	07 Zip Code
Wheatfield	NY	14304

III. OFF-SITE GENERATOR(S) - N/A

01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code
01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

IV. TRANSPORTER(S) - N/A

01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code
01 Name	02 D&B Number		01 Name	02 D&B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code
05 City	06 State	07 Zip Code	05 City	06 State	07 Zip Code

V. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES	I. IDENTIFICATION	
	01 State NY	02 Site Number 932090

II. PAST RESPONSE ACTIVITIES

01 [ ] A. Water Supply Closed 04 Description: No	02 Date _____	03 Agency _____
01 [ ] B. Temporary Water Supply Provided 04 Description: N/A	02 Date _____	03 Agency _____
01 [ ] C. Permanent Water Supply Provided 04 Description: N/A	02 Date _____	03 Agency _____
01 [X] D. Spilled Material Removed 04 Description: Activated carbon filtered pond's culvert leading to Cayuga Creek in December 1978 to May 1979. Cleanup activities continued from December 19, 1978 through mid-May 1979.	02 Date _____	03 Agency Carborundum, Hazmat Environmental, Inc., and Chem-TROL
01 [ ] E. Contaminated Soil Removed 04 Description: No excavation of soils or sediment has occurred.	02 Date _____	03 Agency _____
01 [ ] F. Waste Repackaged 04 Description: No	02 Date _____	03 Agency _____
01 [ ] G. Waste Disposed Elsewhere 04 Description: No	02 Date _____	03 Agency _____
01 [ ] H. On-Site Burial 04 Description: No	02 Date _____	03 Agency _____
01 [ ] I. In Situ Chemical Treatment 04 Description: No	02 Date _____	03 Agency _____
01 [ ] J. In Situ Biological Treatment 04 Description: None, except natural biodegradation	02 Date _____	03 Agency _____
01 [ ] K. In Situ Physical Treatment 04 Description: No	02 Date _____	03 Agency _____
01 [ ] L. Encapsulation 04 Description: No	02 Date _____	03 Agency _____
01 [X] M. Emergency Waste Treatment 04 Description: For 1978 spill - see D. above and O. below	02 Date 12/78 to 5/79	03 Agency _____
01 [ ] N. Cutoff Walls 04 Description: No	02 Date _____	03 Agency _____
01 [X] O. Emergency Diking/Surface Water Diversion 04 Description: Activated carbon filtered pond's culvert leading to Cayuga Creek, spill was also diverted to sanitary sewer.	02 Date 12/78 to 5/79	03 Agency _____
01 [ ] P. Cutoff Trenches/Sump 04 Description: No	02 Date _____	03 Agency _____

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES	I. IDENTIFICATION	
	01 State NY	02 Site Number 932090

II. PAST RESPONSE ACTIVITIES (Cont.)

01 [ ] Q. Subsurface Cutoff Wall — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] R. Barrier Walls Constructed — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] S. Capping/Covering — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] T. Bulk Tankage Repaired — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] U. Grout Curtain Constructed — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] V. Bottom Sealed — 02 Date _____ — 03 Agency _____
04 Description: No

01 [ ] W. Gas Control — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] X. Fire Control — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] Y. Leachate Treatment — 02 Date _____ — 03 Agency _____
04 Description: N/A

01 [ ] Z. Area Evacuated — 02 Date _____ — 03 Agency _____
04 Description: No

01 [X] 1. Access to Site Restricted — 02 Date continuous — 03 Agency NFTA
04 Description: Fence surrounds NFTA property - entry by authorization only

01 [ ] 2. Population Relocated — 02 Date _____ — 03 Agency _____
04 Description: No

01 [ ] 3. Other Remedial Activities — 02 Date _____ — 03 Agency _____
04 Description: Per the December 1978 spill:
- All fluid draining from pond was filtered with activated carbon
- Pond water was pumped to city sanitation system at 200 gpm (wkends) and 100 gpm (wkdays)
- These procedures were continued until satisfactory phenol levels were attained

III. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

PSA site investigation, interviews, Engineering-Science, Inc. Phase I Report, 1986

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 State	02 Site Number
NY	932090

II. ENFORCEMENT INFORMATION

01 Past Regulatory/Enforcement Action [ ] Yes [X] No

02 Description of Federal, State, Local Regulatory/Enforcement Action

III. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

Phase I, NYSDEC Region 9, Niagara County Health Department

APPENDIX C
INTERVIEW DOCUMENTATION

An unsigned Document of Interview indicates that the person interviewed did not return the form as requested by the interviewer.

INTERVIEW ACKNOWLEDGMENT FORM

SITE NAME: NFTA

PERSON CONTACTED: Jack Schumate

AFFILIATION: Niagara County Airport, Town of Wheatfield

ADDRESS:

TYPE OF CONTACT: Interview and Site Inspection

I.D. NUMBER: 932090

DATE: April 30, 1991

PHONE NUMBER:

CONTACT PERSON(S): Sandra Lare, Scott Thorsell

INTERVIEW SUMMARY:

Mr. Schumate met us at the Niagara County Airport and escorted us onto NFTA property and to the impounding reservoir site.

Immediately obvious from the former runway area was the new hill of broken concrete slab and gravelly dirt along the north edge of the pond. Mr. Schumate stated that this material was runway/taxiway debris removed from a nearby area and used to level the ground near the active runway.

Mr. Schumate has never seen unauthorized persons on or around the site, and indicated that site/airport security is very good, especially near the military base of operations not far from the runway.

Occasionally ducks have been a problem at the pond, interfering with air traffic. They have used firecrackers in the past to alleviate this problem.

We asked Mr. Schumate what the use of the storage shed was and all he knew was that they keep wooden stakes out there (snow fence). He did not know about the 55-gallon drums stored there.

ACKNOWLEDGMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment Engineering, P.C. interviewer(s) (as revised below, if necessary).
Revisions: (please write in any corrections needed to the above transcript)

Signature _____ Date _____

INTERVIEW ACKNOWLEDGEMENT FORM

SITE NAME:	NFTA/Carborundum Abrasives
PERSON CONTACTED:	Gerald F. McGee Plant Engineer
AFFILIATION:	Carborundum Abrasives Co.
ADDRESS:	P.O. Box 350 6600 Walmore Road Niagara Falls, NY 14304
TYPE OF CONTACT:	Interview and File Search
I.D. NUMBER:	932090
DATE:	April 30, 1991
PHONE NUMBER:	(716)695-812~~8~~C
CONTACT PERSON(S):	Scott Thorsell, Sandy Lare

INTERVIEW SUMMARY:

Met with Gerald F. McGee, Carborundum Abrasives plant engineer since 1976. He was very helpful by talking to us about Carborundum's discharges (SPDES) to the NFTA lagoon, the 1978 phenol spill at the plant and by offering his files relative to the SPDES permits for our review.

The files that we reviewed contained correspondences with NYSDEC relative to the SPDES permits, permit applications, the present SPDES permit (#NY 000-1716), data relative to plant operations resulting in the discharges and consulting reports from Frontier Technical Associates, Inc. relative to the preparation of the SPDES application. Copies were made of two outline sketches depicting storm sewer drainage and plant operation plumbing relative to the SPDES permit outfalls. Other notes were made from various file information.

Additionally, Mr. McGee explained how the phenol spill had occurred on the roof of Building #4 and eventually spread to the outfall system discharged to the southeast corner of the pond. Charcoal filled bags were used as an absorbent for the phenol, and all contaminated materials were collected by a contractor (Hazmat Environmental Group, Inc.) and disposed of by ~~Modern~~

CHEM-TROL (SEE ATTACHED LETTE 1/16/79).
~~Disposal Services, Inc. (Model City~~). Some of this information was also available in Mr. McGee's files. No dredging of soil or sediment has occurred in the area since the 1978 spill.

Problems experienced by Carborundum with the previous SPDES permit resulted in the occasional violations of the phenolics loading to the lagoon. Elimination of some plant processes and modifications to others has apparently allowed Carborundum to stay within the current SPDES loading of 0.2 lbs/day of total phenolics. Bi-monthly monitoring of flow, BOD, TSS, pH, temperature, oil and grease, total phenol, ammonia and zinc is required by the current SPDES permit. Reports are on file at the NYSDEC and County Health Department.

ACKNOWLEDGEMENT

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Ecology and Environment, Inc. interviewer(s) (as revised below, if necessary).
Revisions: (please write in any corrections needed to the above transcript)

Signature Gerald F. McGee Date 5/17/91