

Department of Environmental Conservation

Multi-Media/Pollution Prevention Inspection Report

**Dupont Yerkes Plant
Sheridan Drive & River Road
Town of Tonawanda, Erie County**

June 1995


New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* MICHAEL D. ZAGATA, *Commissioner*

MULTI-MEDIA/POLLUTION PREVENTION INSPECTION REPORT

DUPONT YERKES PLANT
SHERIDAN DRIVE & RIVER ROAD
TOWN of TONAWANDA, ERIE COUNTY, NEW YORK
JUNE 1995

INSPECTION TEAM:

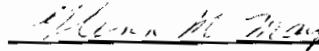
Division of Air Resources


Larry Sitzman

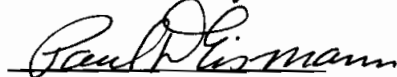
Division of Hazardous
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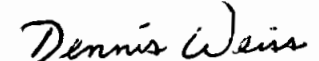
Division of Hazardous
Waste Remediation


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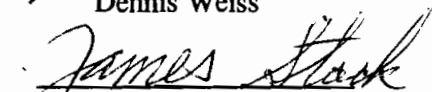
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FACILITY MANAGER:

Division of Hazardous
Waste Remediation


Glenn M. May

REPORT DATE: JUNE 15, 1995

INSPECTION DATE: MAY 27, 1994

MULTI-MEDIA/POLLUTION PREVENTION INSPECTION REPORT

EXECUTIVE SUMMARY

The DuPont Yerkes Plant, located at the intersection of Sheridan Drive and River Road in the Town of Tonawanda, Erie County, New York, manufactures Corian™ as simulated marble sinks, vanity tops, and sheets; and Tedlar™ polyvinyl fluoride film as a weather resistant surface finish on many products.

The DuPont Yerkes Plant was selected by Region 9 as a FY 1994-1995 target facility for meeting the multi-media/pollution prevention initiatives of the Department. Selection of this facility was based in part upon its presence on the list of 400 firms in New York State that produce 95% of the contaminant releases to the environment, and because several Divisions within the Department regulate the facility for environmental compliance.

Prior to the establishment of formal waste minimization/reduction programs, E.I. DuPont developed a Corporate Policy governing waste minimization/reduction under the corporate goal of reducing discharges to all environmental media by 100%. This policy was implemented at the DuPont Yerkes Plant in 1990 and has resulted in a 97% reduction in methylene chloride emissions; a 28% reduction in Corian™ solid waste with a proactive program to develop markets for off-grade product; the recycling of the PVA release film utilized in the Corian™ manufacturing process; the recycling of general plant refuse, and a pallet reuse program. These waste reductions were realized even though production at the plant increased during this period. As a result of the facility's methylene chloride reductions, DuPont recently won the Governor's Award for pollution prevention initiatives.

The DuPont Yerkes Plant is listed as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The site consists of ten inactive disposal pits, each of varying dimensions, that were excavated 10 to 30 feet into native clays and utilized for the disposal of manufacturing, processing, and research and development wastes between 1921 and 1978. The results of a Phase II Investigation completed by DuPont in 1992 (report finalized in 1994) suggest that hazardous waste disposal only occurred in one disposal pit. In August of 1994, groundwater samples were collected from two nearby monitoring wells and will be analyzed to evaluate the potential impact of this disposal pit on groundwater. These results should provide sufficient information to reclassify this site as defined in 6NYCRR Part 375.

An inspection of the facility was conducted on May 27, 1994. The inspection team included personnel from the various divisions in Region 9. In addition, DuPont Yerkes Plant representatives accompanied the team during the multi-media inspection. No violations of the Department's environmental regulations were observed.

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MULTI-MEDIA/POLLUTION PREVENTION INSPECTION REPORT

PART I: INTRODUCTION AND BACKGROUND

I-I: INTRODUCTION

The DuPont Yerkes Plant, located at the intersection of Sheridan Drive and River Road in the Town of Tonawanda, Erie County, New York (Figure 1), was selected by Region 9 as a FY 1993-1994 target facility for meeting the multi-media/pollution prevention (M2P2) initiatives of the Department. Selection of this facility was based in part upon its presence on the list of 400 firms in New York State that produce 95% of the contaminant releases to the environment, and because several Divisions within the Department regulate the facility for environmental compliance.

The overall goal of the M2P2 program is to provide an integrated approach to the environmental management of a facility. Several important advantages are inherent in this program, guaranteeing that:

- No significant environmental problems are overlooked.
- Releases into one environmental medium are not shifted to other media with little or no environmental improvement.
- A balanced approach to the facility's overall environmental issues is established.
- Remedial work, when needed, can be prioritized and scheduled to solve the most significant problems first.
- The utilization of industry and Department time, efforts and resources are optimized.
- Waste reduction and pollution prevention measures can be more readily identified and implemented.
- Permits can be more carefully crafted to reflect an integrated strategy for the management and reduction of facility releases.
- The overall level of compliance can be assessed so that the appropriate enforcement stance can be clearly ascertained, thereby enhancing the overall enforcement strategy.

To meet these goals, a facility team consisting of the following members and Divisions was formed:

Mr. Glenn M. May - DHWR
Mr. James Stack - DSM

Mr. Lawrence Sitzman - DAR
Mr. J. Robert Smythe - DOW
Mr. Paul Eismann - DRS
Mr. Dennis Weiss - DSW
Mr. Richard Baker - DHSR

Mr. Glenn M. May - Facility Manager

A pre-inspection team meeting was held on May 18, 1994 to discuss each Division's past and current involvement with the DuPont Yerkes Plant. The multi-media inspection was conducted on May 27, 1994 by all Divisions except Solid Waste, which was conducted on August 15, 1994. The Division of Hazardous Substances Regulation completed its more formal hazardous waste compliance inspection on June 3, 1994.

I-II: FACILITY BACKGROUND

The DuPont Yerkes Plant, situated on approximately 90 acres in an industrialized area of the Town of Tonawanda, Erie County, New York at the intersection of River Road and Sheridan Drive (Figure 1), is bordered on the north by the New York State Thruway and the Dunlop Tire Corporation; on the south and east by the General Motors Corporation; and on the west by River Road and the Niagara River. The E.I. DuPont Company was founded in 1802 and was incorporated in the State of Delaware in 1902. Operations at the Yerkes Plant began in 1921. The following products have been manufactured at this facility:

■ Rayon™	1921-1955
■ Cellophane	1924-1968
■ Cel-O-Seal caps and bands	1931-1964
■ Cellulose sponge	1936-1951
■ Cordura™ yarn	1941-1955
■ Polyethylene film	1951-1961
■ Vexar™ netting	1959-1979
■ Tedlar™ polyvinyl fluoride film	Since 1955
■ Corian™ sheet and shape	Since 1968

The facility manufactures Corian™ as simulated marble sheets, sinks, and vanity tops; and Tedlar™ polyvinyl fluoride film as a weather resistant surface finish on many products.

I-III: MANUFACTURING PROCESSES

Corian™

Corian™ is a synthetic marble product made into sinks, vanity tops, and sheets by the polymerization of methyl methacrylate (PMMA), alumina trihydrate (ATH), and peroxide paste catalyst. The resultant Corian™ mixture is either cast as a continuous sheet on one of two sheet production lines or injected into a series of conditioned molds on one of two shape production lines. Figure 2 is a simplified schematic for each process. At the time of the M2P2 inspection, only one sheet process line was in operation, while both shape production lines (the old classic shape line and the new closed mold shape line) were in operation. The classic shape line has been in operation for many years, while the new closed mold shape line has been operating commercially since May, 1993.

ATH is received at the facility via rail car and stored in silos. PMMA arrives at the facility via truck or rail car, while monomer arrives via truck. Both the PMMA and monomer are stored in tanks. The ATH is sifted to remove oversized particle and impurities, and as needed, is weighed and metered to either the standard mixer for the single color mix or to the Sierra mixer for the granite textured mix (Sierra blend). In the standard mixer, PMMA, ATH, and peroxide paste are combined to produce the Corian™ pre-mix, while in the Sierra mixer, crunchies (small pieces of variously colored scrap Corian™) are added to produce the Corian™ Sierra pre-mix. If necessary, the Corian™ pre-mix can be diverted to the mix recovery tank and reused in the standard mixer. Sierra pre-mix, however, cannot be reused because the crunchies affect quality control. The desired Corian™ pre-mix is then metered to a mix head, where initiators and pigments (iron oxide or titanium oxide based) are blended into the mix before it is poured onto a continuous casting belt (sheet production line) or injected into molds (shape production line).

In the Corian™ sheet process, the mix is sandwiched between polyvinyl alcohol (PVA) film that functions as a release agent and progresses down the wet sheet line where a catalytic reaction takes place that solidifies the sheet. The reacting mix passes through an insulated tunnel and exits the casting belt as a solid sheet at temperatures up to 240°F. The PVA film is removed from the sheet, which advances through a closed loop air chiller before entering the in-line trim saw where the edges are trimmed and the sheet cut into preset lengths. The finished sheets are dried and inspected, with the Sierra sheets sent to the planar/sander for finishing. In the Corian™ shape process, the reacting mix is injected into molds on either a semi-continuous (the old classic shape line) or continuous (the new closed loop mold shape line) production line. The mix polymerizes exothermically within the molds and is subsequently cooled. The finished molds are sent to unloading stations where the sinks and vanity tops are manually removed from the molds, sanded, and inspected.

All finished product is packaged and sent to an off-site warehouse in Lockport. Start-up sheets (gross defects) are removed and landfilled, while off-specification Corian™ sheets are either cut into smaller acceptable sheets or utilized for crunchies in the Sierra Blend mix.

Water collected from the trim and in-line saws is collected and sent to a settling tank, where anti-foam, coagulant polymer and sodium hypochlorite is added to promote separation. The water is drawn from the top of the tank and passed through a filter mesh, leaving the Corian™ residue behind.

The filter mesh and residue is placed into a dumpster for subsequent disposal, while the air is vented directly to the atmosphere.

Tedlar™

Tedlar™, a smooth polyvinyl fluoride (PVF) film, is manufactured as a weather and stain resistant surface finish on many commercial products from a mixture of vinyl fluoride, dimethyl acetamide (DMAC), and pigments. Figure 3 is a simplified schematic of this process. Vinyl fluoride inhibited with d-limonene arrives at the facility via truck and is stored in two aboveground storage tanks. The inhibited vinyl fluoride is mixed with propylene, transferred to a calandria where it is heated, and vaporized within the inhibitor removal column. The vinyl fluoride is condensed back into a liquid, while the d-limonene is removed from the column, heated to remove residual vinyl fluoride that is returned to the process, and discharged into drums for subsequent disposal.

The liquid vinyl fluoride enters a polymerizer reactor that produces a slurry of polyvinyl fluoride, vinyl fluoride, and water. This slurry passes through a series of separators to remove entrained vinyl fluoride, which is cooled, sent to a decanter, and subsequently returned to the storage tank for reuse. The water is discharged to the POTW for treatment. The resulting PVF slurry enters a flash tank to drive off any remaining vinyl fluoride before being transported to a settling tank where the PVF is concentrated. This concentrated PVF slurry is then passed through either a rotary or filter press to remove additional water, resulting in a final PVF concentration. This solution is mixed with air, heated, dried, and either packaged for distribution or stored for further use in the Tedlar™ process. Air and water vapor produced during this drying phase are discharged directly to the atmosphere.

The stored PVF is later combined with DMAC to form Tedlar™ mix, which is transported to an extruder to be heated and filtered before being fed into a hopper and die that extrudes a continuous sheet of Tedlar™ film. This film passes through a water filled quench tank, enters a series of rollers that stretch the film, and then enters a five zone oven for final processing. Exhaust air from the oven enters a condenser that collects DMAC, while the air is either returned to the oven or vented through a scrubber to the atmosphere. The Tedlar™ film also can be treated with a flame produced by propane and oxygen to facilitate lamination or painting. In addition to the Tedlar™ process just described, the facility also manufactures Tedlar™ SP, an unstretched Tedlar™ film. In this process, polyvinyl fluoride, a solvent, and various additives are coated on a carrier web, which is removed once the film has dried. Rolls of Tedlar™ film are cut into smaller sizes, packaged, and sent to the off-site warehouse.

Unacceptable product is cut to smaller sizes, and sent to either the chipper room or a solid waste landfill. The chipper room has two chipper systems: one for DMAC rich and one for DMAC poor Tedlar™ film. The DMAC rich film comes from either waste film exiting the rollers or edge trim as the film exits the oven, while the DMAC poor film is off specification film from the packaging and shipping area. Waste film is chipped to produce a fine grained "flake" that is stored in totes until needed. The chippers are equipped with air scrubbers to remove excess DMAC.

I-IV: WASTE GENERATION

As a result of the DuPont Yerkes Plant manufacturing processes, both hazardous and non-hazardous wastes are generated at the facility. These wastes include, but are not limited to, the following:

- d-limonene inhibitor (D001) removed from the vinyl fluoride during polyvinyl fluoride production,
- cadmium, chromium, and lead (D006/D007/D008) from the pigments utilized in the Tedlar™ process,
- methyl methacrylate monomer (D001) generated during Corian™ mix head cleaning,
- mineral spirits (D001/D039) generated in the maintenance shop,
- methylene chloride (F002) generated during machinery degreasing,
- laboratory wastes from quality control testing (D001),
- Corian™ scrap, saw trimmings, and sanding dusts,
- Tedlar™ scrap,
- the Tedlar™ SP carrier web,
- the polyvinyl alcohol film utilized as a release agent in the Corian™ process,
- DMAC sludge generated during the Tedlar™ process,
- water generated during polyvinyl fluoride production,
- water utilized in the Tedlar™ quench tank,
- the sand beds from an on-site water treatment plant, and
- miscellaneous packaging waste.

A summary of the hazardous wastes generated at the facility between 1990 and 1993 are shown in Tables 1 through 4.

An evaluation of the 1993 SARA Title III Toxic Release Inventory Data Facility Report (Appendix 2) indicates that methylene chloride and methyl methacrylate represent the most significant contaminants released from this facility (Table 5). In 1988, the combined release of these contaminants totaled 724,000 pounds. During 1989 the DuPont Yerkes Plant began an active program to phase out methylene chloride, a solvent that was utilized primarily for cleaning the Corian™ mix heads. In June,

**TABLE 1
NYS DEC HAZARDOUS WASTE REPORT: 1990**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Ignitable/toxic spent lab solvents w/ MeCl2	918	110	0.46	0.07	Plant
Ignitable/toxic spent lab solvents; hal & non-hal	459	55	0.23	0.04	Plant
Toxic old & spent cleaners/degreasers	800		0.40	0.06	Corian™
Ignitable lab chemicals; PMMA & MMA	600		0.30	0.05	Corian™
Toxic waste solid w/ DOP & absorbent	8,000		4.00	0.63	Corian™
Ignitable/toxic lab chemicals; various	400		0.20	0.03	Plant
Ignitable lab chemicals w/ MMA & paint sludge	1,800		0.90	0.14	Plant
Corrosive lab chemicals	918	110	0.46	0.07	Plant
Corrosive lab chemicals; acids	42	5	0.02	0.00	Plant
Ignitable/toxic filled PMMA w/ MeCl2	301,000		150.50	23.73	Corian™
Ignitable/toxic filled PMMA	884,000		442.00	69.69	Corian™
Toxic lab chemicals; includes acute hazardous waste	200		0.10	0.02	Plant
Ignitable lab waste w/ residual petroleum distillate	1,000		0.50	0.08	Plant
Ignitable paint related material	2,200		1.10	0.17	Plant
Corrosive lab chemicals; bases	601	72	0.30	0.05	Plant
Corrosive lab chemicals; acids	459	55	0.23	0.04	Plant
Corrosive lab chemicals; ammonium bisulfite	1,800		0.90	0.14	Plant
Ignitable/toxic lab chemicals; methanol	400		0.20	0.03	Plant
Ignitable adhesive w/ MMA	60,000		30.00	4.73	Corian™
Ignitable degreasing solvents w/ petroleum naphtha	2,800		1.40	0.22	Plant
Total	1,268,395	407	634.00	100.00	

**TABLE 2
NYS DEC HAZARDOUS WASTE REPORT: 1991**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Ignitable filled PMMA waste	626,464		313.23	90.73	Corian™
Ignitable spent solvent; d-limonene	18,332		9.17	2.66	Plant
Ignitable filled PMMA waste w/ methylene chloride	14,029		7.01	2.03	Plant
Ignitable/toxic lab chemicals; PMMA & MMA	4,403		2.20	0.64	Plant
Ignitable degreasers w/ methylene chloride	4,002		2.00	0.58	Tedlar™
Ignitable degreasers w/ petroleum naphtha	1,990		1.00	0.29	Corian™
Ignitable lab chemicals; MMA & MEK	1,600		0.80	0.23	Corian™
Toxic transformer casing	3,054		1.53	0.44	Tedlar™
Toxic waste oil	929		0.46	0.13	Plant
Corrosive liquid w/ alkyl acid ortho phosphorous	550		0.28	0.08	Plant
Toxic oil from transformer casing	1,206		0.60	0.17	Corian™
Toxic debris w/ methylene chloride	360		0.18	0.05	Plant
Ignitable oxidizers	547		0.27	0.08	Plant
Toxic lab chemicals w/ heavy metals	10,361	621	5.18	1.50	Plant
Corrosive/toxic/ignitable lab chemicals	334		0.17	0.05	Plant
Ignitable lab chemicals; paint material	125		0.06	0.02	Tedlar™
Ignitable/reactive peroxides	542	65	0.27	0.08	Plant
Ignitable/toxic waste adhesives	868	104	0.43	0.13	Plant
Corrosive/toxic solids	440	16	0.22	0.06	Plant
Ignitable waste ink	133	16	0.07	0.02	Plant
Corrosive lab chemicals; acids	83	10	0.04	0.01	Plant
Corrosive lab chemicals; bases	42	5	0.02	0.01	Plant
Corrosive/ignitable lab chemicals; acids	42	5	0.02	0.01	Plant
Total	690,436	842	345.22	100.00	

**TABLE 3
NYS DEC HAZARDOUS WASTE REPORT: 1992**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Ignitable filled PMMA waste	594,500		297.25	69.96	Corian™
PCB contaminated transformer casings	123,237		61.62	14.50	Plant
PCB contaminated waste oil from transformers	64,467		32.23	7.59	Plant
Toxic/ignitable waste oil	9,513		4.76	1.12	Plant
Ignitable spent solvent; d-limonene	9,460		4.73	1.11	Tedlar™
Ignitable adhesive w/ MMA & DBP	9,454		4.73	1.11	Corian™
Ignitable process liquid w/ PMMA & MMA	8,720		4.36	1.03	Corian™
Ignitable coating/paint related material w/ VOS	6,905		3.45	0.81	Tedlar™
PCB contaminated capacitors	3,135		1.57	0.37	Plant
Ignitable/toxic/corrosive lab chemicals	3,362	403	1.68	0.40	Plant
Ignitable degreasers; methylene chloride	3,210		1.61	0.38	Corian™
Ignitable degreasers w/ petroleum naphtha	2,768		1.38	0.33	Plant
Ignitable/toxic lab chemicals	2,624	286	1.31	0.31	Plant
Toxic lab chemicals w/ heavy metals	2,414		1.21	0.28	Plant
Toxic debris contaminated w/ PCB's	1,140	72	0.57	0.13	Plant
Toxic brine	1,376	165	0.69	0.16	Tedlar™
Toxic lab chemicals w/ heavy metals & DBP	1,043	125	0.52	0.12	Plant
Corrosive lab chemicals; acids	726	87	0.36	0.09	Plant
Corrosive/toxic oxidizers	793	76	0.40	0.09	Plant
Corrosive/toxic wet filled batteries	325		0.16	0.04	Plant
Ignitable lab chemicals; acrylic resins	156	17	0.08	0.02	Plant
Toxic debris w/ methylene chloride	133		0.07	0.02	Corian™
Corrosive lab chemicals; bases	100	12	0.05	0.01	Plant
Toxic debris w/ heavy metals	50		0.03	0.01	Plant

**TABLE 3
NYS DEC HAZARDOUS WASTE REPORT: 1992**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Corrosive lab chemicals; acids	42	5	0.02	0.00	Plant
Poisonous lab chemicals; mercuric chloride	42	5	0.02	0.00	Plant
Ignitable gases; aerosols	42	5	0.02	0.00	Plant
Toxic lab solvent; trichloroethylene	18	2	0.01	0.00	Plant
Total	849,754	1,260	425.00	100.00	
Non-Acute Hazardous Waste > 5 tons/90% of All Non-Acute Hazardous Waste					
Ignitable filled PMMA waste	594,500		297.25	69.96	Coriant™
Toxic transformer casing	123,237		61.62	14.50	Plant
Toxic waste oil from transformers	64,467		32.23	7.59	Plant
Total	782,204		391.00	92.05	

**TABLE 4
NYS DEC HAZARDOUS WASTE REPORT: 1993**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Ignitable coating/paint material (SP heels w/ VOS)	52,442		26.22	63.19	Tedlar SP™
Ignitable process liquid w/ PMMA & MMA	8,919		4.46	10.75	Corian™
Ignitable spent solvent; d-limonene	4,911		2.46	5.92	Tedlar™
Toxic/ignitable shop rags; chlor. & nonchlor.	2,910		1.46	3.51	Plant
Ignitable degreasers w/ petroleum naphtha	2,763		1.38	3.33	Plant
Toxic brine w/ chromium	2,753		1.38	3.32	Tedlar™
Ignitable paint material; acrylic lacquer thinner	1,835		0.92	2.21	Plant
Toxic degreaser/cleaner; methylene chloride	1,720		0.86	2.07	Corian™
Ignitable lab chemicals; acetone, methanol, BMA	1,510		0.76	1.82	Plant
Ignitable/reactive lab chemicals; solid oxidizers	911		0.46	1.10	Plant
Ignitable solvent; isopropanol	576		0.29	0.69	Plant
Toxic solid debris/bags; Pb, Cd, Cr, Se	450		0.23	0.54	Tedlar™
Toxic/poisonous lab chemicals; Pb, Cd, Cr, Se, Ba	375		0.19	0.45	Tedlar™
Toxic cleaners w/ benzene, TCE, heavy metals	277		0.14	0.33	Corian™
Ignitable solvent; toluene	200		0.10	0.24	Tedlar™
Ignitable paint material; acetone, toluene, xylene	180		0.09	0.22	Tedlar™
Ignitable/reactive lab chemicals; liquid oxidizers	138		0.07	0.17	Tedlar™
Corrosive lab chemicals; sodium hydroxide	100		0.05	0.12	Corian™
Ignitable lab chemicals; MMA & PMMA	17		0.01	0.02	Corian™
Total	82,987		41.00	100.00	

**TABLE 4
NYS DEC HAZARDOUS WASTE REPORT: 1993**

Waste Description	Pounds Generated	Gallons Generated	Tons Generated	Percent Total Waste	Production Area
Non-Acute Hazardous Waste > 5 tons/90% of All Non-Acute Hazardous Waste					
Ignitable coating/paint material (SP heels w/ VOS)	52,442		26.22	63.19	Tedlar™
Ignitable process liquid w/ MMA & PMMA	8,919		4.46	10.75	Corian™
Ignitable spent solvent; d-limonene	4,911		2.46	5.92	Tedlar™
Toxic/ignitable shop rags; chlor. & nonchlor.	2,910		1.46	3.51	Plant
Ignitable degreasers w/ petroleum naphtha	2,763		1.38	3.33	Plant
Toxic brine w/ chromium	2,753		1.38	3.32	Tedlar™
Total	13,337		7.00	90.01	

1989, methylene chloride for cleaning the shape line mix heads was replaced by methyl methacrylate monomer. A similar change on the sheet production line was made in October, 1990. As a result, the combined release of methylene chloride and methyl methacrylate in 1992 totaled 142,287 pounds (methyl methacrylate only), representing an 80% reduction from 1988 releases. The SARA Report indicates also that 17,095 pounds of antimony, nickel, and zinc wastes were generated during this period (see Appendix 2).

TABLE 5					
SARA TITLE III TOXIC RELEASE INVENTORY					
METHYLENE CHLORIDE AND METHYL METHACRYLATE (LBS/YEAR)					
METHYLENE CHLORIDE (LBS/YEAR)					
YEAR	AIR EMISSIONS		DISCHARGE TO POTW	IN STATE/OUT OF STATE TRANSFERS	TOTAL
	NON-POINT	POINT			
1988	98,000	180,000	0	0	278,000
1989	125,214	61,386	0	0	186,600
1990	43,950	61,000	0	50	105,000
1991	18,000	0	0	4,000	22,000
METHYL METHACRYLATE (LBS/YEAR)					
1988	196,000	250,000	0	0	446,000
1989	337,145	129,423	0	0	466,568
1990	578	68,000	0	0	68,578
1991	1,100	68,000	0	0	69,100
1992	493	130,000	0	11,794	142,287

I-V: POLLUTION PREVENTION/WASTE MINIMIZATION

Prior to the establishment of formal waste minimization/reduction programs by either the USEPA or NYS DEC, E.I. DuPont developed a corporate waste reduction goal of "zero emissions" at all company facilities. At the DuPont Yerkes Plant, this policy was implemented in 1990. A summary of this plan is given as Appendix 3. Through this plan, the DuPont Yerkes Plant has initiated several pollution prevention/waste minimization programs that have resulted in (1) a 97% reduction in methylene chloride emissions; (2) a 28% reduction in Corian™ solid waste with a proactive program to develop markets for off-grade product; (3) the recycling of the PVA release film utilized in the Corian™ manufacturing process; (4) the recycling of general plant refuse, and (5) the development of a pallet reuse program. In addition, between 1990 and 1993, the facility reduced their hazardous waste generation by

94%, down from 634 tons in 1990 (Table 1) to 41 tons in 1993 (Table 4). These waste reductions were realized even though production at the plant increased during this period. Hazardous waste records for 1992 (Table 3) show an increase in hazardous waste generation from 1991 records due to a major PCB transformer removal program.

On June 30, 1993, the DuPont Yerkes Plant submitted to the Division of Hazardous Substance Regulation a Hazardous Waste Reduction Plan that was subsequently approved by the Department (Appendix 4). Under the Hazardous Waste Reduction Plan the company is evaluating alternatives for reducing the volume and toxicity of the waste that is generated at the facility. The waste streams to be evaluated as part of the Hazardous Waste Reduction Plan and the steps to be taken or studied are as follows:

- Ignitable filled PMMA Waste:
 - Improve the operating efficiency of the Corian™ shape and sheet production lines, and
 - Recycle and resale ground Corian™ shape and sheet production line purge waste.

MULTI-MEDIA/POLLUTION PREVENTION INSPECTION REPORT

PART II: REGULATORY INVOLVEMENT

II-I: DIVISION OF REGULATORY SERVICES (DRS)

The Division of Regulatory Services manages the environmental permit programs that are subject to the Uniform Procedures Act (6NYCRR Part 621) in order to provide a holistic, multi-program environmental regulatory process. As part of the application review process, DRS also ensures that the requirements of the State Environmental Quality Review Act (SEQRA) (6NYCRR Part 617) are met, thereby providing a comprehensive, interdisciplinary analysis of proposed actions.

In recent years the DuPont Yerkes Plant has made significant progress in reducing permitted discharges. In 1990 DuPont proposed an expansion of its Corian™ production that would have increased methylene chloride emissions (based on 24 hours per day, 365 days per year) by 78.5 tons per year. Methylene chloride is considered an "A" environmental rated contaminant (a contaminant of highest concern) by the Division of Air Resources, however, due to the low concentration of methylene chloride and the high volume of air associated with the sources, emission control technology could not be reasonably implemented. Although the State Environmental Quality Review Act (SEQR) evaluation concluded that the emissions would not exceed the significance level and permits to construct were subsequently issued, the company, with the encouragement of the Department, launched an investigation of possible means for reducing methylene chloride emissions. When, in 1992, the company submitted its Application for Certificates to Operate Sources of Air Contamination, methylene chloride was removed from all permits except for maintenance purposes.

Currently the facility has permits for over one hundred Certificates to Operate A Source of Air Contamination. Presently, thirty-seven applications for air permits and modifications are pending, awaiting the results of review by the Department's Division of Air Resources. The DuPont Yerkes Plant also has a valid State Pollutant Discharge Elimination System (SPDES) Permit for the discharge of up to 3.1 million gallons per day of non-contact cooling water back to the Niagara River.

The DuPont Yerkes Plant is one of the few industrial firms to shut down its boilers and sign a contractual arrangement with a cogeneration facility to supply its steam needs. Indeck-Yerkes Energy Services, Inc. provides 75,000 pounds of steam that in part is produced from the cogeneration facility's gas turbine exhaust heat. The cogeneration facility's ability to generate electricity from gas and steam turbines while supplying steam for process/heating purposes is a very efficient use of fuel resources.

An Environmental Constraints Analysis was conducted for the facility site and the area within a two mile radius of the site to determine the potential impacts upon Freshwater Wetlands, Protected Streams, Navigable Waters, Coastal Management Areas, Coastal Erosion Areas, Archaeological/Historical Sites, Principal/Primary Aquifers, Agricultural Districts, 100-year Floodplain, Hazardous Waste Sites

and Natural Heritage Sites/Significant Habitats, Niagara River Areas of Concern, Critical Environmental Areas, Oil/Gas Wells, Wild/Scenic/Recreational Rivers, and Hydric Soils. The Environmental Constraints/Resources Multimedia Environmental Review Checklist and RCIS active and historical application printouts are included as Appendix 5.

On-site, there is one Inactive Hazardous Waste Site, site code 915019, listed as Class 2a in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Dunlop Tire Corporation (site code 915018, Class 3) and the Polymer Applications (site code 915044, Class 2) inactive hazardous waste sites are located immediately north of the DuPont Yerkes Plant. In addition, there are twelve other Registry sites within a two mile radius of the DuPont Yerkes Plant (see Appendix 5).

The inspection of the facility identified spalling of the concrete pedestal footers for the outdoor pipebridges. Additional maintenance appears warranted.

II-II: DIVISION OF HAZARDOUS WASTE REMEDIATION (DHWR)

Approximately 40 acres north and east of the DuPont Yerkes Plant, including approximately 14 acres on land now owned by the General Motors Corporation, is listed as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Class 2a designation is a temporary classification assigned to a site when the existing data is either inadequate and/or insufficient to classify the site in accordance with 6 NYCRR Part 375 regulations. The site consists of ten inactive disposal pits, each of varying dimensions, that were excavated 10 to 30 feet into native clays, and utilized for the disposal of manufacturing, processing, and research and development wastes between 1921 and 1978. The locations of these individual disposal pits are shown on Figure 3 in Appendix A. The Inactive Hazardous Waste Disposal Report has been included as Appendix 6.

The DuPont Yerkes Plant entered into an Order on Consent with the Department on July 17, 1992 to conduct a Phase II investigation. This investigation was designed to collect sufficient information to allow the Department to reclassify the site. The Phase II investigation began in August of 1992 and was completed in August of the following year. The report was finalized in March of 1994. The analytical results obtained during this investigation revealed that hazardous wastes were not disposed in nine of the disposal pits. TCLP characteristic hazardous waste, however, was identified in the disposal pit that had formerly been utilized for the disposal of laboratory chemicals. In August, 1994, groundwater samples were collected from two nearby monitoring wells and analyzed to evaluate the potential impact of this disposal pit on groundwater. Based upon the results of this sampling, DuPont will be submitting to the Department a petition to delist this site from the Registry.

II-III: DIVISION OF SOLID WASTE (DSW)

The Division of Solid Waste has no record of previous involvement at this facility other than the routine review and approval of applications for the disposal of industrial waste streams generated at the plant. Plant personnel have indicated that all non-hazardous solid waste streams generated at the DuPont Yerkes Plant are disposed of at the BFI Niagara Recycling Landfill in Niagara Falls, New York. A listing of these wastes streams is given in Table 6.

The DuPont Yerkes Plant also generates floor sweepings, general plant refuse, and cafeteria wastes that are also sent to BFI for disposal. Since these materials are not considered industrial wastes, waste stream approvals are not required. BFI also recycles the facility's waste office paper, newspaper, cardboard, along with cans, glass, and plastic containers from the plant cafeterias.

TABLE 6 SUMMARY OF THE SOLID WASTE APPROVED FOR OFF-SITE DISPOSAL			
APPLICATION NO.	APPROVAL DATE	WASTE STREAM	QUANTITY
533	02/10/84	PMMA Sheeting	4000 tons/yr
617-C	06/10/85	Corian™ Production Waste	350 tons/yr
618-C	08/07/85	Corian™ Production Waste	1000 tons/yr
619-C	08/07/85	Tedlar™ Production Waste	45 tons/yr
620-C	08/07/85	Tedlar™ Waste	2 tons/yr
2109	08/30/91	PVF	25 tons/yr
2123	10/10/91	PVF Polymer	2000 gal/yr
2178	04/08/92	Coating onto Polyimide Film	3 tons/yr
2244	10/27/92	ATH/PMMA	300 tons/yr

The ten inactive disposal pits listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State date back to the early years of plant operation through 1978. No Department permits were issued for these sites and DuPont indicates that they were covered with construction and demolition materials and closed in the late 1970s. This would pre-date any Part 360 closure requirements for construction of an impermeable cap, and no further DSW involvement is anticipated for these sites.

The handling and disposal of non-hazardous solid wastes generated by the DuPont Yerkes Plant is in compliance with applicable Department regulations. Further DSW actions are not anticipated for this facility.

II-IV: DIVISION OF SPILLS MANAGEMENT (DSM)

The DuPont Yerkes Plant is registered with the Department under both the Chemical Bulk Storage (CBS #9-000025) and Petroleum Bulk Storage (PBS #9-125407) programs. The CBS and PBS Facility Information Reports are included as Appendix 7. Under the CBS program, three aboveground

storage tanks are registered, and contain methyl methacrylate, sodium hydroxide, and sulfuric acid. The former chemical is used for the production of Corian™, while the other two chemicals are used in the Plant's water treatment facility. The registration of these tanks is effective through March 10, 1995. There are no outstanding compliance issues regarding these tanks, and no violations of the CBS regulations were observed during the inspection.

There are 8 tanks registered under the PBS program. Five of these tanks, however, are temporarily out-of-service, and the Plant intends to clean and permanently close them before their registration expires in 1997. This closure will reduce the petroleum storage capacity at the Plant from 361,000 gallons to 4,000 gallons. Of the remaining tanks, two are aboveground and one is underground. The aboveground tanks, each with a 500 gallon capacity, are utilized for the storage of diesel fuel. The underground tank, with a capacity of 1000 gallons, is utilized for the storage of unleaded gasoline. This tank, however, is proposed for removal. There are no outstanding compliance issues regarding these tanks, and no violations of the PBS regulations were observed during the inspection.

The company makes extensive use of totes in the production of Tedlar™ to store the processed polyvinyl fluoride. Totes are small reusable containers that can be brought right onto the production line for use. When empty, they are returned for reuse. The use of totes greatly simplifies storage and handling problems as production takes on a modular aspect. There were no compliance violations concerning these totes observed during the inspection.

A review of the Spills Information System for the period 5/86 through 6/94 revealed that 2 spills were reported to the Department during this time. These spills were cleaned up by the company with no adverse environmental impact. The small number of spills reported may, in part, be attributable to the highly automated Tedlar™ and Corian™ processes. The Oil & Hazardous Material Spill Fact Sheets concerning these spills are included as Appendix 8.

The general approach to M2P2 at the DuPont Yerkes Plant is reflected in their Chemical Bulk Storage program. The basic feedstock for the Corian™ production process is methyl methacrylate, which is available in industrial quantities as monomer (MMA) and sirup (PMMA). Historically, the facility purchased this chemical in both forms. The former is regulated under CBS due to its high volatility and exothermic reaction potential. The MMA is inhibited with an antioxidant prior to shipment to prevent decomposition, and must be removed before utilization in Corian™ production. Since March 1994, the DuPont Yerkes Plant only purchases PMMA, which is no longer a regulated product, and can be transported by both rail car and tanker truck. This chemical substitution is an excellent example of pollution prevention initiatives.

II-V: DIVISION OF HAZARDOUS SUBSTANCES REGULATION (DHSR)

The Dupont Yerkes Plant filed a Notification of Hazardous Waste Activity in August 1980. The facility received USEPA Identification Number NYD002103513 and was listed as a Category 4 large quantity generator. This status has not been changed by either the USEPA or NYS DEC since then. Most of the hazardous waste generated by the facility originates from the cleanup of Corian™ and Tedlar™ process equipment and from the quality control labs (see Section I-IV). These wastes are stored in one centralized container storage area and nine Corian™ and four Tedlar™ accumulation areas. The status of

generator presently exempts the DuPont Yerkes Plant from the corrective action requirements of the Hazardous and Solid Waste Amendments (HSWA) of 1984. The facility does not conduct any on-site treatment of hazardous wastes.

In April 1991, as a result of a self audit, the Dupont Yerkes Plant informed the Department that it had improperly characterized as non-hazardous a methylene chloride spent solvent waste generated during the flushing of the Corian™ mix heads. Such waste is required by 6NYCRR Part 371 regulations, under 371.4(b), to be handled as a F002 hazardous waste. This improper waste characterization dates to 1981, the year that EPA regulations incorporated spent solvent wastes as "listed" hazardous wastes. New York regulations incorporated the spent solvents as "listed" hazardous wastes in 1986. The disposal of this material in sanitary landfills puts these facilities at risk and subjects them to Superfund liabilities. In November 1991, an Order on Consent was executed by and between the DuPont Yerkes Plant and the Department whereby the company agreed to pay a substantial fine intended to offset the cost savings recognized by the improper disposal of these wastes. The use of methylene chloride for flushing the Corian™ mix heads was discontinued in 1990.

In August 1990, the New York legislature passed a law requiring facilities that generate hazardous waste to reduce, to the maximum extent possible, the volume and toxicity of hazardous wastes generated in quantities greater than five tons during the previous calendar year. The DuPont Yerkes Plant generated approximately 425 tons of hazardous waste in 1992, requiring the Hazardous Waste Reduction Plan (HWRP) to be submitted to the NYS DEC by July 1, 1993. The DuPont Yerkes Plant submitted their base year HWRP on June 30, 1993. The plan was reviewed and approved by the Department on April 27, 1994. The first Annual Status Report, submitted on March 14, 1994, was also approved on April 27, 1994. The HWRP must be updated biennially, and annual status reports must be provided.

On June 3, 1994, a hazardous waste compliance inspection was conducted at the facility. This inspection covered all production and co-production areas that generate hazardous wastes, all hazardous waste accumulation and storage areas, and all applicable paperwork. No violations of State Hazardous Waste Regulations were noted. The inspection report is available for review in the DHSR RCRA files located in Room 311 at the Department's Region 9 office.

II-VI: DIVISION OF WATER (DOW)

The DuPont Yerkes Plant is permitted under the SPDES program (SPDES permit no. NY 0001601) to discharge storm water, non-contact cooling water, backwash wastewater from an on-site water treatment plant, and boiler blowdown water to the Niagara River through SPDES outfall no. 001. Non-contact cooling water is utilized in the Corian™ curing process and in the Tedlar™ SP cooling towers during the recovery of propylene carbonate dispersion solvent. The DuPont Yerkes Plant also operates a water treatment plant for the facility's process and potable water needs. Water treatment processes include alum sedimentation, sand filtration, water softening, high purity deionization, and chlorine disinfection. Backwash wastewater from the sand filters, water softener, and high purity deionizer is discharged to the SPDES outfall. The Plant boiler has not been utilized in over four years, but remains in operating order for utilization as a back up when steam might not be available from the adjacent steam co-generation facility. If the boiler was utilized, a continuous blowdown of water would be discharged to SPDES outfall no. 001.

Since September 1992, the DuPont Yerkes Plant reported two isolated instances of noncompliance with their SPDES discharge permit limitations. One instance occurred during start-up of Zebra Mussel treatment equipment in July 1993 when chloride residual concentrations greater than 0.05 mg/l were discharged to the Niagara River. The second instance occurred in March 1994 when daily average/daily maximum COD loadings greater than 300/600 pounds per day were discharged. In general, the SPDES compliance history at the DuPont Yerkes Plant has been good.

All process wastewater generated at the DuPont Yerkes Plant is discharged to the Town of Tonawanda sanitary sewer system with ultimate treatment provided by the Town's advanced tertiary waste water treatment facilities. One example of such wastewater is the contact cooling water utilized during the Tedlar™ process to cool the film. These discharges are regulated in accordance with the town sewer use ordinance and industrial pretreatment program, which are overseen by the Department's Division of Water. Historically, discharges from the DuPont Yerkes Plant have been in compliance with the terms and conditions of both the sewer use ordinance and the industrial pretreatment program.

On May 26, 1994, DuPont personnel reported to the Division of Water the discovery of an unpermitted, non-contact cooling water discharge to the storm sewer system from a steam quench tank located in the new Corian™ shape production area. This discharge is non-contact steam condensate water (approximately 33 gpm) used to heat the shape molds, but may contain trace concentrations of oil from the chain conveyor and methyl methacrylate from the mold fill ports. Samples collected from the quench sump did not contain oil or grease, but did contain trace concentrations of methyl methacrylate. Non-detectable concentrations of both substances were measured at SPDES outfall no. 001. This production area was inspected during the multi-media inspection and it was observed that the facility had constructed temporary piping between the quench tank and sanitary sewer system. The DuPont Yerkes Plant has since completed a permanent pipe connection to the sanitary sewer. No significant concerns were raised as a consequence of the multi-media inspection.

II-VII: DIVISION OF AIR (DAR)

There are over 100 active air permits regulated under 6 NYCRR, Part 212; General Process Emission Sources for discharges from the Corian™ and Tedlar™ manufacturing processes. Methyl methacrylate is the primary air contaminant emitted from the facility and is discharged directly to the atmosphere. Methylene chloride was also discharged directly to the atmosphere at significant quantities (see Table 5) until its use for flushing the Corian™ mix heads was eliminated. Particulates are also generated in the Corian™ manufacturing process during sawing and sanding operations, and are controlled by dust collectors. Collected dust is either recycled back into the process or transported to BFI for disposal. The dust collection bags are inspected regularly and changed as needed.

SARA reported air emissions for methyl methacrylate and methylene chloride decreased by 82% between 1988 and 1991 (see Table 5) as a result of the facility's pollution prevention initiatives. However, the quantity of methyl methacrylate emitted to the atmosphere approximately doubled in 1992 due to difficulties in placing the new Corian™ shape line in operation.

Air emissions from the Tedlar™ process are reduced at several emission points through the use of scrubbers and other engineering controls. Because vinyl fluoride is both an explosive and poisonous

compound, the facility is designed to prevent releases of virgin vinyl fluoride, while the process building is designed with blast walls to protect the remainder of the facility in the event of a processing accident during vinyl fluoride polymerization.

Air emissions from the Tedlar™ SP process are minor due to the utilization of a catalytic incinerator for VOC destruction. The air pollution control system is also equipped with a condenser that can be utilized to remove high molecular weight volatile organic compounds for reuse in the process. Since the quantity and quality of recovered solvents proved to be uneconomical, air emissions now bypass the condenser and are fed directly to the fume incinerator.

The Federal Clean Air Act Amendments (CAAA) impose new requirements on the DuPont Yerkes Plant. The principle components of these amendments include reasonably available control technology (RACT) for VOC emission sources; maximum achievable control technology (MACT) for release of hazardous air pollutants (HAP); and Title V permitting requirements. The DuPont Yerkes Plant is considered a major facility due to the quantity of VOC and HAP emissions.

Modifications made to 6 NYCRR, Part 212 in 1994 require major VOC facilities to reduce their VOC emissions at each significant stack to levels representing RACT. The DuPont Yerkes Plant must submit by June 1, 1995 a compliance plan that outlines the steps necessary to comply with this regulation.

The MACT standards of the CAAA require technology based controls for the reduction of HAP emissions. Methyl methacrylate is both a VOC and HAP, therefore, within the next few years, either the EPA will develop MACT regulations for the operations emitting methyl methacrylate at the facility, or the NYS DEC will be required to develop a source specific MACT standard.

Another area of the CAAA affecting the DuPont Yerkes Plant is the Title V permitting requirements. A Title V permit is a facility wide air emission permit that differs from the current New York system in which a permit is required for each emission point. As the New York schedule is currently drafted, the DuPont Yerkes Plant will be required to submit an application for a Title V permit during 1996-1997. In preparation for the Title V permitting requirements, the facility conducted an environmental mass balance study and a complete stack inventory to determine baseline emission and process operation data. Some emission testing was included in these programs to update previous emission test data and/or estimates. As a result, DuPont submitted numerous permit applications to modify existing certificates to operate by updating emissions or hours of operation, and to permit previously unpermitted emission points. The unpermitted emission points are, in general, small vents with minor emissions that were installed by the DuPont maintenance staff. All of the applications are under review by the Division.

No violations of the air pollution control regulations were identified during the multi-media inspection of the DuPont Yerkes Plant.

II-VIII MULTI-MEDIA INSPECTION

An announced multi-media inspection was conducted at the DuPont Yerkes Plant on May 27, 1994. The purpose of this inspection was to evaluate the entire facility at one moment in time to

determine compliance with the Department's environmental laws and regulations. It also gave team members the opportunity to learn about facility operations, ask questions, and improve their knowledge of other program activities at the Plant.

The day began with a pre-inspection meeting between M2P2 team members and facility representatives. The Facility Manager, Mr. Glenn M. May, opened this meeting with a discussion concerning the M2P2 program, its' goals, and objectives. The team members then introduced themselves and briefly explained their role in the multi-media inspection. Presentations were the made by the following DuPont Yerkes Plant representatives:

Robert Hughes Jr., Plant Manager	- Introduction
Margy Davis	- Tedlar™ Process Line
Dave Knickles	- Corian™ Process Line

These presentations provided an overview of the facility and relevant environmental issues.

At the conclusion of the pre-inspection meeting, the team conducted the multi-media inspection of the Plant. Both manufacturing production lines were observed, as was the inactive hazardous waste site disposal area, the petroleum and chemical bulk storage tanks, the hazardous waste storage areas, the on-site water treatment plant, and the storm water discharge locations.

MULTI-MEDIA/POLLUTION PREVENTION INSPECTION REPORT

PART III: RECOMMENDATIONS AND CONCLUSIONS

III-I: RECOMMENDATIONS

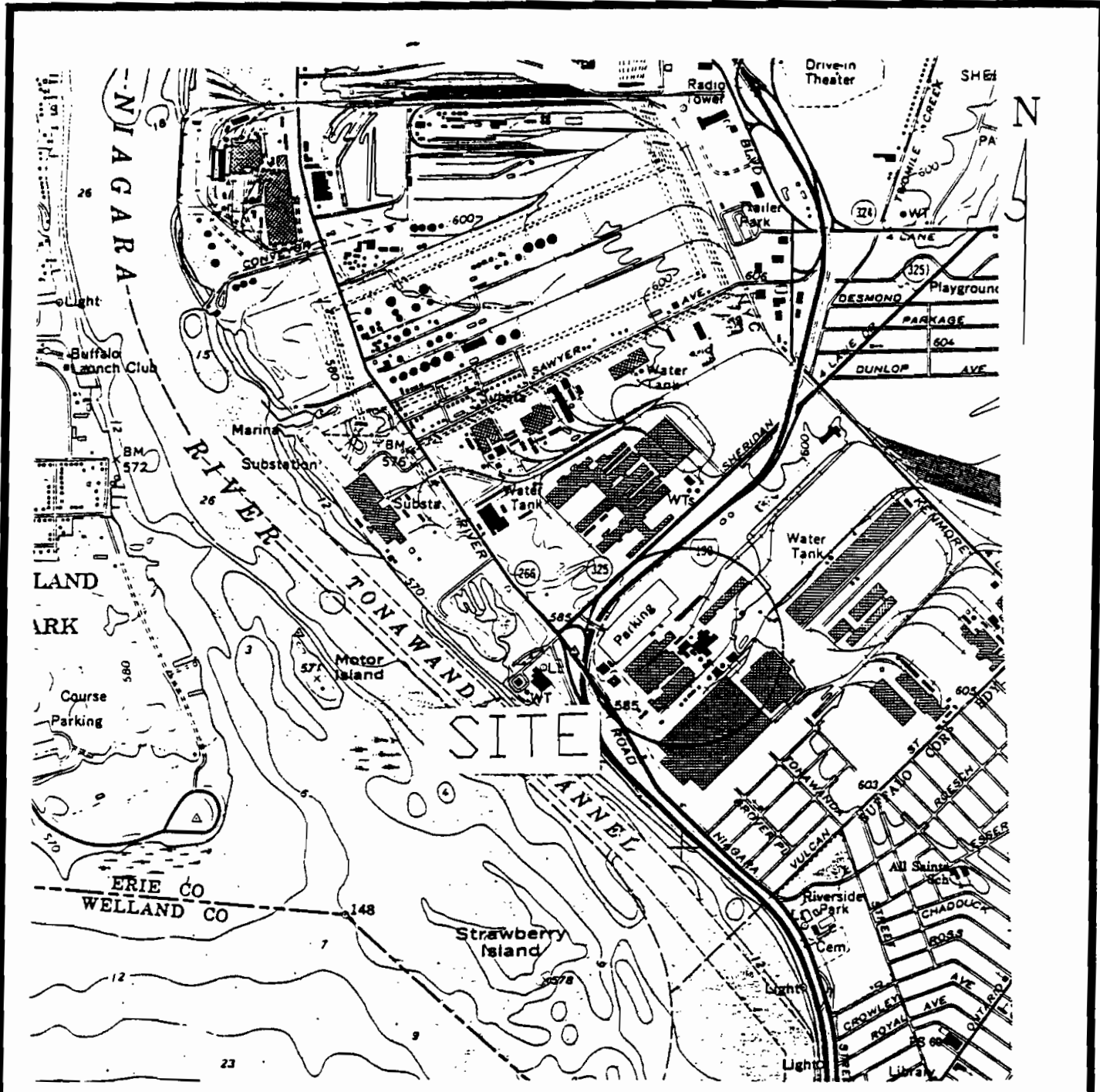
The multi-media inspection of the DuPont Yerkes Plant did not reveal any violations of the Department's environmental regulations. The DRS M2P2 member, however, identified spalling of the concrete pedestal footers for the outdoor pipebridges. Plant representatives indicated that these structures are inspected for structural integrity routinely, therefore, only continued maintenance is recommended. Additional comments or concerns raised during the inspection have been satisfactorily addressed by the company.

The DuPont Yerkes Plant has submitted to the Department a Hazardous Waste Reduction Plan. This plan has been approved by the DHSR. The facility has taken steps to reduce the volume of waste generated and is researching methods to reduce these volumes further. It is the teams' recommendation that the Department work closely with the DuPont Yerkes Plant to ensure that the goals stated in the HWRP are met.

III-II: CONCLUSIONS


No significant environmental issues or concerns were observed during the multi-media inspection of the DuPont Yerkes Plant. In addition, the facility has already instituted pollution prevention/waste minimization activities at the plant and are investigating future pollution prevention measures.

APPENDIX 1
FIGURES



From U.S.G.S. Buffalo NW, N.Y.-Ont. Quadrangle
 NW/4 Buffalo 15'
 N4252.5-W7852.5/7.5

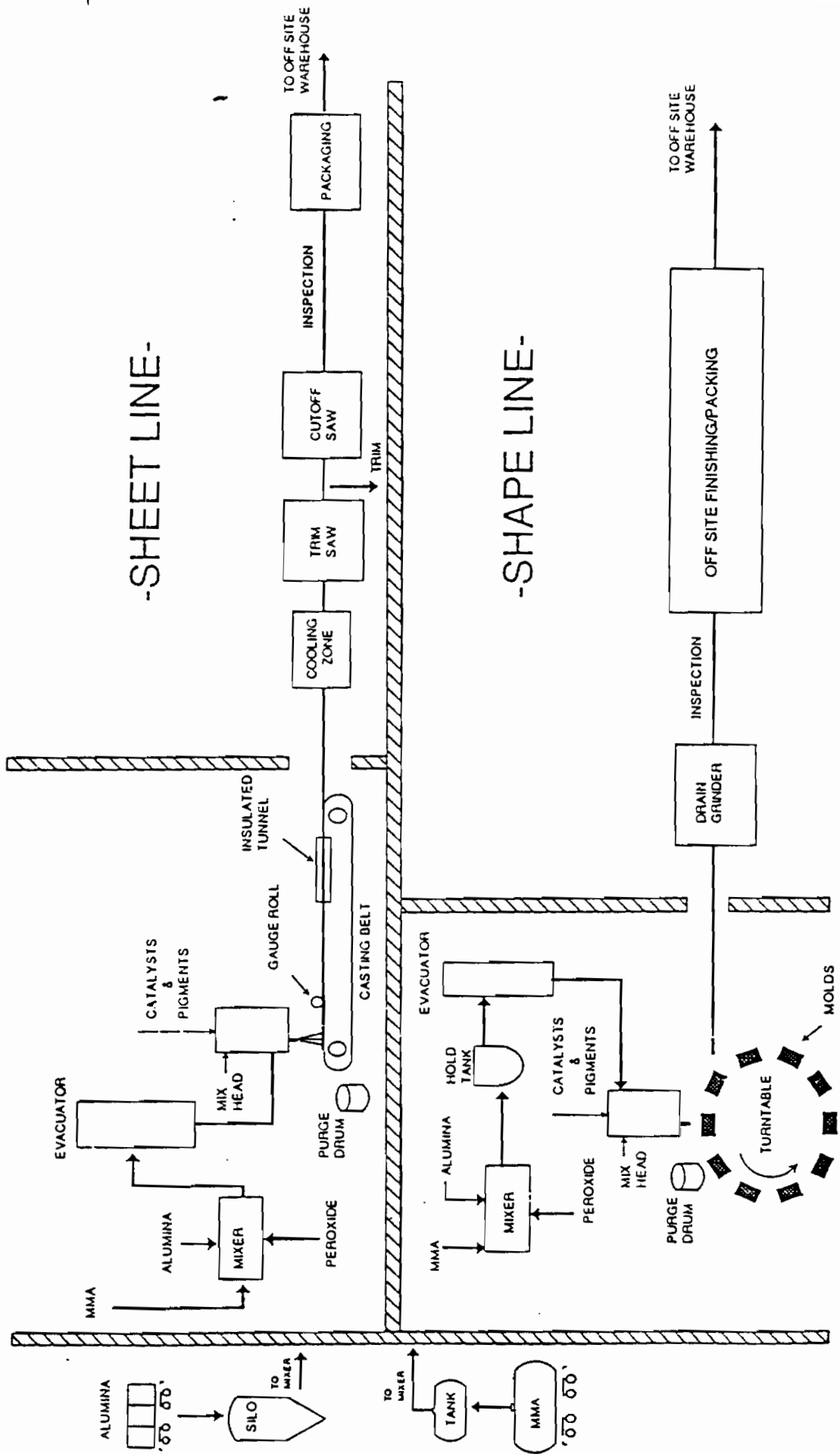
E.I. du Pont de Nemour and Company Inc.
 Yerkes Facility ; Tonawanda, New York
 Phase II Investigation

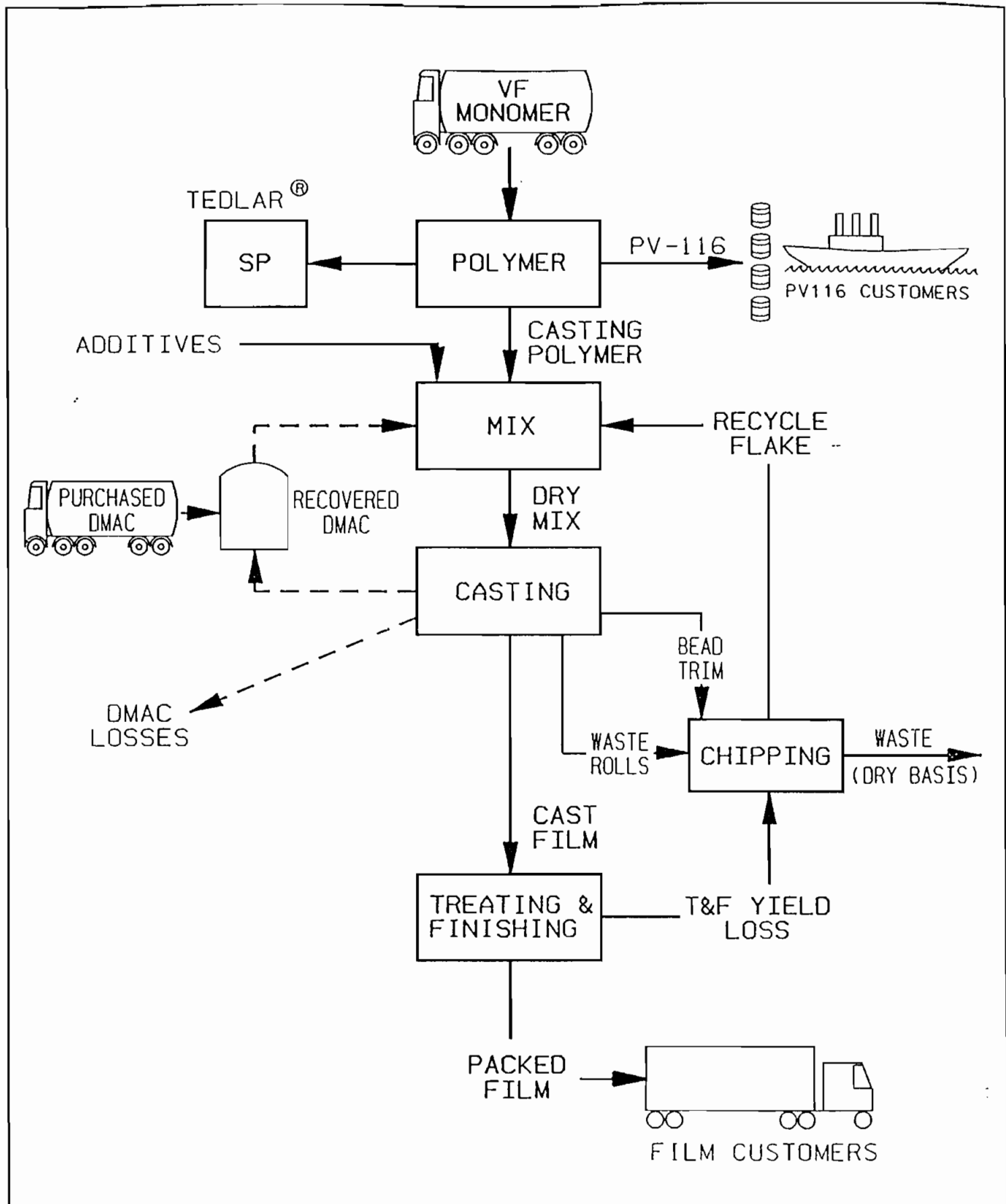
 **WOODWARD-CLYDE CONSULTANTS**
 Consulting Engineers, Geologists and Environmental Scientists


SITE LOCATION MAP

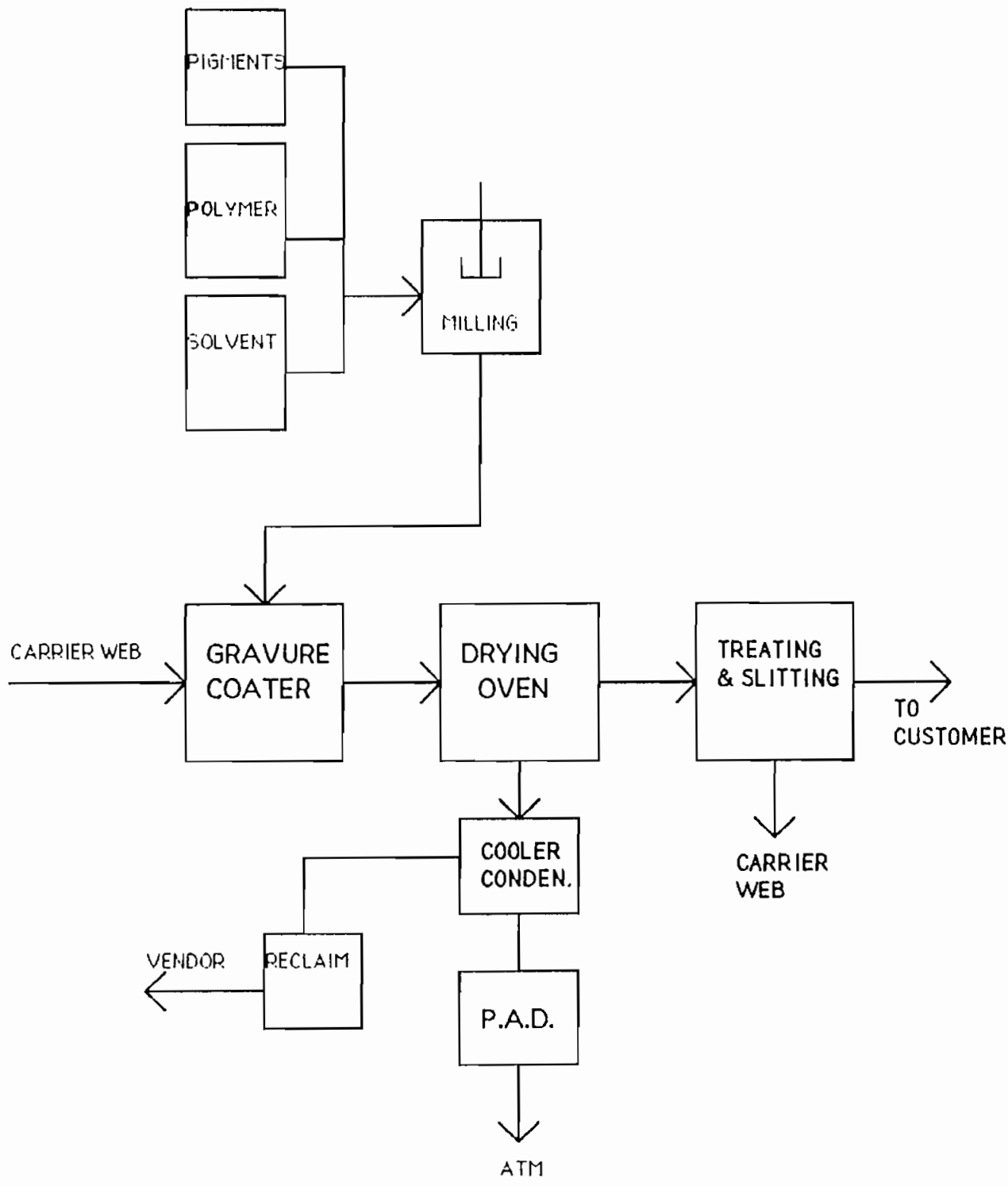
Job No. 92C2284-1	Drawing No.	Date 7-07-93
Checked by KRM	Rev. No.	
Scale	1" = 2000'	
		Figure 1-1

PROCESS OUTLINE

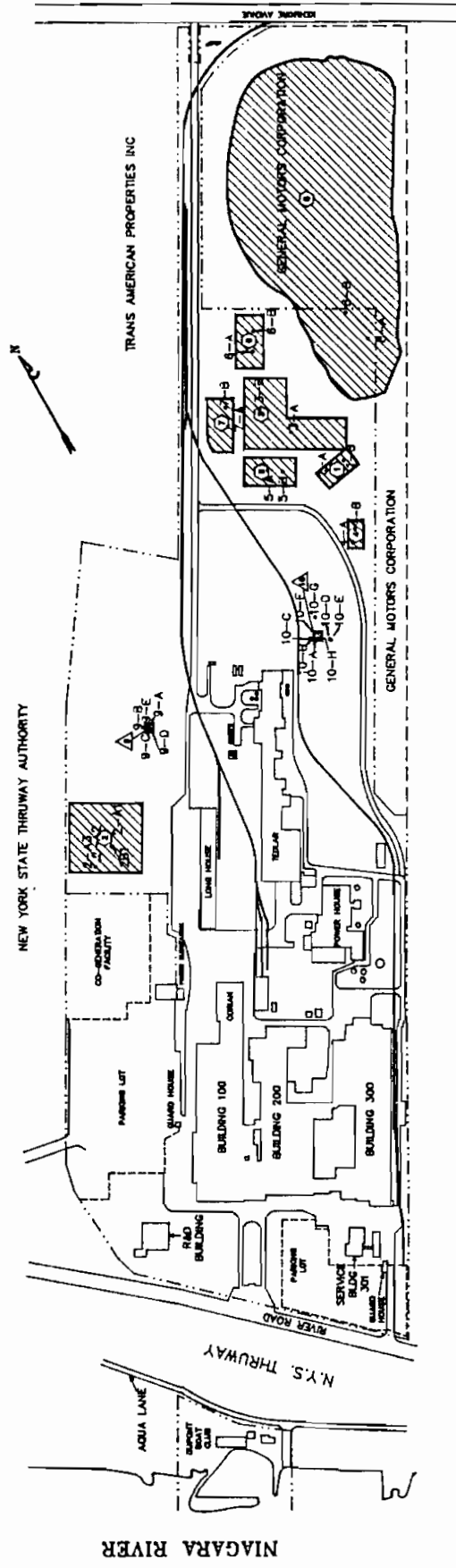





TEDLAR®
 PROCESS FLOW DIAGRAM



**TEDLAR[®] SP
PROCESS FLOW
DIAGRAM**



UNIT	WASTE CLASSIFICATION	LENGTH	APPROXIMATE WIDTH	DEPTH	DATE EXCAVATED
1	GENERAL WASTE	150'	80'	12'	1980
2	TENDLAR WASTE	250'	250'	20'	1982
3	GENERAL WASTE	380/160'	110/285'	30'	1983
4	GENERAL WASTE	125'	65'	15'	3/74
5	GENERAL WASTE	200'	100'	15'	10/74
6	GENERAL WASTE	200'	100'	15'	10/75
7	GENERAL WASTE	200'	100'	15'	10/78
8	GENERAL WASTE	ORIGINALLY A TOPOGRAPHIC LOW - NO EXCAVATION FILLED 3' TO 5' AND COVERED			
9	R&D WASTE	25'	25'	10'	1958
10	R&D WASTE	25'	25'	10'	1957

- LEGEND
- PROPERTY BOUNDARY/FENCE LINE
 - OLD PROPERTY BOUNDARY
 - FENCE LINE
 - ⊠ PHASE II MONITORING WELL LOCATION
 - ⊙ SOIL BORING
 - ⊙ PREVIOUS MONITORING WELL LOCATION

E.I. du Pont de Nemours and Company Inc.
Yerkes Facility, Tonawanda, New York
Phase II Investigation

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists

LOCATION OF LANDFILL AREAS
AND SOIL BORINGS

Job No.: 90C233-1 Drawing No. Date: 7-07-93
Checked by KRM Rev. No. Scale: 0' 200' 400' 600'

Figure 1-2

APPENDIX 2
SARA TITLE III, TOXIC RELEASE INVENTORY DATA FACILITY REPORT

New York State Department of Environmental Conservation
 SARA Title III, Toxic Release Inventory Data, Facility Report
 May 31, 1994

Site : E.I.DUPONT DE NEMOURS & CO.(YERKES
 SHERIDAN DR & RIVER
 BUFFALO, NY 14207
 County: ERIE
 Sortkey : 140640

Public Contact : WILLIAM ERVIN
 Phone : (716) 869-4551
 SIC Code : 3081
 POTW Used : TONAWANDA (T)
 Receiving Waterbodies : NIAGARA RIVER

RCIS # : 9146400031
 EPA TRI # : 14207DPNTYSHERI
 Air Emissions Permit # : 1464000563
 RCRA # : 002103513
 SPDES Permit # : 0001601

Form R Submitted : 6

CAS Number Chemical Name	(Year)	N010 (92) ANTIMONY COMPOUNDS	N010 (91) ANTIMONY COMPOUNDS	N010 (90) ANTIMONY COMPOUNDS	N010 (89) ANTIMONY COMPOUNDS	N495 (92) NICKEL COMPOUNDS	N495 (90) NICKEL COMPOUNDS
Max. Stored on Site (lbs.)		1 K+ - < 10 K	10 K+ - < 100 K	1 K+ - < 10 K	1 K+ - < 10 K	1 K+ - < 10 K	1 K+ - < 10 K
RELEASES TO THE ENVIRONMENT		lbs./year	lbs./year	lbs./year	lbs./year	lbs./year	lbs./year
AIR EMISSIONS							
Fugative or Non Point.....		None	None	None	None	None	None
Stack or Point.....		None	None	None	None	None	None
DISCHARGES TO WATER							
Water 1.....		None	None	None	None	None	None
Water 2.....		None	None	None	None	None	None
Water 3.....		None	None	None	None	None	None
UNDERGROUND INJECTION.....							
RELEASES TO LAND							
On Site Landfill.....		None	None	None	None	None	None
Application Farming.....		None	None	None	None	None	None
Surface Impoundment.....		None	None	None	None	None	None
Other Disposal.....		None	None	None	None	None	None
OFF SITE TRANSFERS IN WASTE							
Discharge to POTW.....		None	7,099	None	None	None	None
In State Transfers.....		5,532	0	450	0	156	135
Out of State Trans.....		269	0	0	0	7	0
Spills.....		0	0	0	0	0	0

New York State Department of Environmental Conservation
 SARA Title III, Toxic Release Inventory Data, Facility Report
 May 31, 1994

Site : E.I.DUPONT DE NEMOURS & CO.(YERKES)
 SHERIDAN DR & RIVER
 BUFFALO, NY 14207
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Public Contact : WILLIAM ERVIN
 Phone : (716) 869-4551
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 POTW Used : TONAWANDA (T)
 Receiving Waterbodies : NIAGARA RIVER

RCIS # : 9146400031
 EPA TRI # : 14207DPNTVSHERI
 Air Emissions Permit # : 1464000563
 RCRA # : 002103513
 SPDES Permit # : 0001601

Form R Submitted : 6

CAS Number Chemical Name Max. Stored on Site (lbs.)	N495 (89) NICKEL COMPOUNDS 1 K+ - < 10 K	N982 (92) ZINC COMPOUNDS 10 K+ - < 100 K	N982 (91) ZINC COMPOUNDS 10 K+ - < 100 K	75092 (91) METHYLENE CHLORIDE (D ICHLOROMETHANE) 1 K+ - < 10 K	75092 (90) METHYLENE CHLORIDE (D ICHLOROMETHANE) 10 K+ - < 100 K	75092 (89) METHYLENE CHLORIDE (D ICHLOROMETHANE) 10 K+ - < 100 K	lbs./year	lbs./year	lbs./year	lbs./year
RELEASES TO THE ENVIRONMENT										
AIR EMISSIONS										
Fugative or Non Point...	None	None	None	18,000	43,950	125,214				
Stack or Point.....	None	None	None	None	61,000	61,386				
DISCHARGES TO WATER										
Water 1.....	None	None	None	None	None	None				
Water 2.....	None	None	None	None	None	None				
Water 3.....	None	None	None	None	None	None				
UNDERGROUND INJECTION.....	None	None	None	None	None	None				
RELEASES TO LAND										
On Site Landfill.....	148	None	None	None	None	None				
Application Farming.....	None	None	None	None	None	None				
Surface Impoundment.....	None	None	None	None	None	None				
Other Disposal.....	None	None	None	None	None	None				
OFF SITE TRANSFERS IN WASTE										
Discharge to POTW.....	None	None	953	0	None	None				
In State Transfers.....	0	1,819	0	0	50	0				
Out of State Trans.....	0	2	0	4,000	0	0				
Spills.....	0	0	0	0	0	0				

APPENDIX 3
E.I DUPONT CORPORATE ENVIRONMENTAL PLAN

CORPORATE ENVIRONMENTAL PLAN 1992

DU PONT CORPORATE GOALS:

AIR TOXICS - U.S.

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
60% REDUCTION	1987	1993	0	***

*** Due to start-up of Tedlar SP adhesive coating process in 1993, Toluene is now used. A new Goal will have to be set.

EPA 33/50

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
50% REDUCTION	1988	1995	0.1 (Nickel)	***

*** Due to Tedlar SP's use of Xylene and Toluene in 1993, this number will not reflect a 50% reduction and a new goal will have to be set.

HAZARDOUS WASTE - U.S.

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
35% REDUCTION	1990	2000	36.7	23.9

- Reduction should be achieved through D-limonene resale and Tedlar SP Flammable Waste minimization.

PACKAGING WASTE

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
50% REDUCTION	1991	2000	250.0 (1993)	125.0

- On-going programs with customers to return and reuse cores and end plates used to ship film. Also looking at new types of drums for shipping polymer so they can be reused.

SBU GOALS:

NON-HAZARDOUS LANDFILLED WASTE

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
20% REDUCTION	1993	2000	1,100	880.0

- Through yield improvement projects, Tedlar expects to see reduction in PVF film landfilled which makes up greatest part of 1.1MM lbs. Projects include: XP-8, Wet Mix Color, Wind-up Improvements, Increased Flake Load.

TEDLAR BUSINESS GOAL:

VINYL FLUORIDE EMISSION REDUCTION

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
70 M REDUCTION	1990	1997	77.1	7.1

- Two projects planned to reduce VF emissions. Phase I begins during 1994 shutdown.

Corian

AIR CARCINOGENS - U.S.

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
90% REDUCTION	1987	2000	208	21

STRATEGIES

- * Replace methylene chloride with alternate solvents.
- * Maintain reduced consumption status.

STATUS

- * Goal surpassed in 1992 & 1993.
- * Methylene chloride emissions reduced 97% to 7M lb in 1992 & 1993.
- * DMR joint venture investigating Yerkes mix head cleaning system

AIR TOXICS - U.S.

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
30% REDUCTION	1993	1998	216	151

STRATEGIES

- * Install vapor return systems for sirup & MMA unloading.
- * Convert Shape production from open mold to closed mold process.
- * Quantify MMA emissions and develop source reduction programs.
- * Consolidate sirup manufacturing operations at Yerkes.

STATUS

- * Earlier corporate goal was of 60% reduction was surpassed, with a 74% reduction from base year.
- * 1993 emissions were 176M lbs at Yerkes and 40M lbs from sirup manufacture at Washington Works.
- * Yerkes sirup process to start up in July 1994.
- * DMR joint venture investigating Yerkes methylene chloride reduction program.

EPA 33/50

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
50% REDUCTION	1988	1995	239	120

STRATEGIES

- * Methylene chloride and methyl ethyl ketone are the only Corian* used chemicals on the EPA 33/50 list.
- * Methylene chloride reduction strategies noted above.
- * MEK usage limited to cleaning ink jet printer.

STATUS

- * Goal surpassed with a 97% reduction from base year.
- * 1933 releases/transfers totaled 8M lb.

HAZARDOUS WASTE - U.S.

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
35% REDUCTION	1991	2000	1,191	774

STRATEGIES

- * Ensure proper state classification of solid purge, waste
- * Process/procedure changes to reduce purge generation
- * Manage seam adhesive inventories to avoid out-of-date product

STATUS

- * Goal surpassed, with a 99+% reduction from goal year.
- * NYDEC reclassified solid purge drums as non-hazardous.
- * 1993 hazardous waste (incl 50% of site general) was 8.2M lb.
- * Seam adhesive disposal reduced to zero.
- * All hazardous waste is incinerated, none is land disposed.

SCRAP CORIAN* TO LANDFILL

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
30% REDUCTION	1991	1996	13,800	9,700

STRATEGIES

- * Improve process yields in Sheet and CCMC Shape.
- * Reduce sheet edge trim width.
- * Generate new markets for non-standard product.
- * Recycle scrap edge trim and Shape.
- * Develop markets for ground Corian*.
- * Develop programs for customer generated waste.

STATUS

- * Goal approached, with a 28% reduction from base year.
- * 1993 Yerkes landfilled Corian* reduced to 9.9MM lb.
- * DMR joint venture has established a subsidiary company to develop markets for off-grade product and is following the above Yerkes strategies.
- * Converters developed for some European customer generated waste.

PACKAGING WASTE

<u>COMMITTMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (M LBS.)</u>	<u>GOAL YEAR (M LBS.)</u>
50% REDUCTION	1991	2000	6,800	3,400

STRATEGIES

- * Impliment a wooden skid recycle program with customers.
- * Recycle plant packaging waste.
- * Purchase raw materials in returnable containers.
- * Develop a global skid with return potential from overseas to U.S.

STATUS

- * 25% of U.S. distributors recycling some of their wooden skids.
- * 1993 packaging waste reduced to 6,300M lbs.
- * 99+% of essential materials purchased in returnable containers.
- * DMR joint venture began skid recycle program, recycled 15% of skids in 1993

WILDLIFE HABITAT

<u>COMMITMENT</u>	<u>BASE YEAR</u>	<u>GOAL YEAR</u>	<u>BASE YEAR (ACRES)</u>	<u>GOAL YEAR (ACRES)</u>
ESTABLISH 10 ACRES	1992	1996	0	10

STRATEGIES

- * Obtain state approval to officially close old R&D on-site landfill at Yerkes
- * Landscape old landfill area.

STATUS

- * Testing of landfill completed and results submitted to NYDEC.
- * Awaiting formal reply from NYDEC.

Distribution:

TO: Robert P. Hughes	(HUGHESRP)
CC: STEVEN R MCCRACKEN	(MCCRACSR AT ISCDCVM1)
CC: DAVID S ALLEN	(ALLEND AT ISCDCVM1)
CC: KATSUMI TAMAI	(TAMAIAK AT A1 AT YOVMX00)
CC: YUJI HIRASAWA	(HIRASAY AT A1 AT YOVMX00)
CC: Gregory Vas Nunes	(VASNUNG AT EUROPE)
CC: Dominique Tombeur	(TOMBEUD AT EUROPE)
CC: John R. Scott	(SCOTTJR)
CC: Roger M. Brooks	(BROOKSRM)
CC: Paul E. Brown	(BROWNPE)
CC: Charles F. DesJardins Jr.	(DESJARCF)
CC: Michael S. Michlovich	(MICHLOMS)
CC: Edward L. Morris, Jr.	(MORRISEL)
CC: Brian B. Murphy	(MURPHYBB)
CC: JAMES A. KELLEY	(KELLEYJA)
CC: BRUCE N VOGEL	(VOGELBN)
CC: James R. Evitts	(EVITTSJR)
CC: Charles H. Beckmann	(BECKMACH)
CC: William W. Ervin	(ERVINWW)
CC: Clifford M. Olson	(OLSONCM)
CC: Catherine R. Frega	(FREGACR)
CC: JEFFERY E. HAASE	(HAASEJE AT A1 AT WMVX)
CC: JAMES M. STONEBURNER	(STONEBJM AT A1 AT WMVX)
CC: Kenneth B. Heer	(HEERKB)
CC: Paul R. Gorski	(GORSKIPR)
CC: FELIX DAVIS, JR	(DAVISF)
CC: MARGIE E. DAVIS	(DAVISME)

**APPENDIX 4
HAZARDOUS WASTE REDUCTION PLAN**

Hazardous Waste Reduction Plan

DuPont Company
Buffalo, NY 14207
EPA ID #: NYD002103513

June 30, 1993

Hazardous Waste Reduction Plan
DuPont Company
Buffalo, NY 14207
EPA ID #: NYD002103513

1. Introduction
2. Waste Stream WFY-017
3. Waste Streams WFY-061A/061B

1.7 Introduction

Safety, health, and environmental quality have long been of primary importance to the DuPont Company. The company recognizes that outstanding safety, health and environmental performance is essential to business excellence. DuPont routinely reviews its operations for the purpose of making safety, health, and environmental quality improvements, beyond those legally required, where such improvements provide significant benefits at reasonable cost. Furthermore, the DuPont Company is committed to a policy of minimizing the generation of solid wastes to the extent which is technically and economically feasible, and to handle all solid waste in an environmentally sound manner.

The DuPont Buffalo Plant continually looks for ways in which to minimize the generation of waste which must be disposed of or treated. This practice, which is consistent with Sections 27-0105 and 27-0908(4)(a) of the NYS Environmental Conservation Law, always considers the following:

1. The use of alternate raw materials to reduce or eliminate waste.
2. Recovery, recycle, or sale of the waste.
3. Process and operational changes to eliminate or reduce the volume or quantity and toxicity of the waste.

Should a waste require treatment or disposal, it is to be done at the plantsite whenever practicable or, if it is necessary to send the waste offsite, at other DuPont sites with suitable waste management facilities. Company policy also states that the preferred treatment options are those resulting in the destruction of waste (e.g. incineration, neutralization, deactivation, etc.) as opposed to those which result in the containment of waste (such as land disposal deepwell injection, etc.). Furthermore, if no treatment options exist within the company that result in the destruction of the waste then, preference is to be given to outside contractors that have such capabilities as opposed to using DuPont Company facilities which result in the containment of the waste.

Since 1987, the DuPont Buffalo plant has annually prepared and updated several corporate reports which are prepared by each plant site to provide the sites, business units and corporate environmental personnel with current waste generation and disposal information. This enables the sites and business units to set waste minimization and internalization goals and a system to monitor the progress of these goals. It enables each business to:

The waste generation data provided in these reports contains such information as a description of the waste, the production area and business that generate the waste, the source of the waste, any applicable EPA and state hazardous codes, the amount of waste generated, projected amounts of waste generated, the amount of waste shipped offsite, pretreatment and final treatment, applicable offsite disposition of the waste, and specific waste minimization programs for the site.

Beginning in 1991, each business has annually prepared and updated a Corporate Environmental Plan (CEP). The CEP is a planning tool to integrate environmental and business thinking throughout the company. It indicates planned environmental initiatives and their expected results based upon the best available information. The CEP forecasts resource requirements to meet regulations, corporate policy, and environmental goals based upon business, engineering, manufacturing, and technical data. It also serves as a tool to measure and predict progress toward these goals, prioritize environmental initiatives, and collect data to help develop strategies for future initiatives..

The goals addressed in the CEP are:

- Reduce toxic air emissions.
- Reduce carcinogenic air emissions.
- Reduce hazardous waste generation.
- Eliminate land disposal of hazardous wastes.
- Reduce product packaging.
- Reduce SARA 313 chemicals emissions.
- Reduce EPA 33/50 emissions.
- Phase out CFC manufacturing.
- Improve energy utilization efficiency.
- Improve the environment through wildlife habitat enhancement of company lands.

Training

DuPont continually provides training to their employees in order to improve their safety and environmental performance. Various means are used in order to communicate to employees corporate, business, and site philosophies and goals as well as state and federal regulations. Waste minimization practices are communicated through the following programs:

- Safety, health and environmental meetings and conferences. These meetings have been used to discuss the DuPont company's commitment to waste minimization and protecting the environment, to discuss the economics of waste management, and how various state and federal regulations (e.g. NYS Hazardous Waste Reduction Law, RCRA, SARA, Pollution Prevention Act, etc.) affect the site.

- New Employee Training.
- The site's procedures manual which assists employees in correctly managing various solid waste streams and maintaining waste generation to a minimum.
- The formation of "task teams" to eliminate, reduce or recycle specific solid waste streams. (I.e. A methylene chloride reduction team was formed in 1990. Since then usage of the solvent has decreased by over 98%.)
- Monthly environmental inspections through all production areas.
- Comprehensive training, on an annual basis, for those employees that regularly handle and manage hazardous wastes. Areas that produce very large amounts (several tons annually) are continuously investigating ways to reduce its generation.

One way the DuPont Buffalo site has seen the results of these efforts has been by receiving several corporate "Environmental Respect" awards and environmental awards from outside corporations (e.g. McDonald's® McRecycle award) for programs which focused on solid and hazardous waste reduction and solid waste recycling/reuse.

This year the site will begin a new video program that will focus on increasing environmental awareness among employees. Several of the video segments are specifically targeted towards waste minimization.

Hazardous Waste Identification

The 1990 amendment to the Environmental Conservation Law (the Hazardous Waste Reduction Act) requires that any generator of equal to or greater than fifty (50) tons of hazardous waste in the calendar year 1992 shall prepare, implement and submit to the NYSDEC a written Hazardous Waste Reduction Plan (HWRP) on or before July 1 of the following year (1993). In 1992, the DuPont Buffalo Plant generated 425 tons of hazardous waste but, did not generate any acute hazardous waste. Therefore, in accordance with Section 27-0908(4)(a) of the Law, only those wastes generated in amounts greater than 5 tons or which account for at least 90% of all hazardous waste generated at the Buffalo Plant are identified and discussed in this HWRP.

The hazardous wastes subject to the requirements of the Environmental Conservation Law are:

<u>Plant Code</u>	<u>Name</u>	<u>Waste Type/Code</u>	<u>Business</u>
WFY-017	Filled Poly(Methyl Methacrylate)	Ignitable (D001)	Corian®
WFY-061A	Transformer Casings	Toxic (B004)	Plant
WFY-061B	Waste Oil	Toxic (B002)	Plant

Evaluation of Waste Minimization Alternatives

Only one of the businesses at the DuPont Buffalo plant, Corian®, was required to participate in the preparation of this HWRP based upon the requirements of Section 27-0908(4)(a) of the Environmental Conservation Law. In preparing this plan, waste minimization alternatives were evaluated using the company environmental goals/policies outlined previously and the consideration of the technical and economic feasibility of each alternative. Safety, health, technical and product quality considerations eliminated such options as raw material substitution and the modification or redesign of the product and most processes. Because of the nature of the waste generated, recycle and reuse alternatives were those found to be the most technically feasible and economically practicable. None of the alternatives considered would result in a transference of the waste material to another environmental medium.

2. Waste Stream WFY-017

Hazardous Waste Identification

Corian® shape solid surface products are sold for use as kitchen and bathroom bowls and sinks. Corian® bowls and sinks are solid polymers produced in the shape line process from the polymerization of a mixture of MMA sirup, which is a liquid solution of poly(methyl methacrylate) in methyl methacrylate, ATH (alumina trihydrate) and peroxide paste. As the process diagram indicates (see Figure A), MMA sirup, ATH, and peroxide paste are fed to a solids/liquids mixer, and the resulting raw mix is pumped to an evacuator where entrained air is removed. The raw mix is typically 60-65% ATH, 34-39% MMA sirup and 1% peroxide paste and, based on process knowledge, is believed to have a total organic carbon (TOC) content greater than 10%. From the evacuator, the reacting mix is cast onto a semi-continuous line consisting of several molds for bowls and sinks. The mix polymerizes exothermically within the molds and is then cooled prior to finishing, inspection and packaging.

Shape line products are currently manufactured on two production lines, the old classic shape line and the new closed mold shape line. The classic shape line has been in operation for a number of years while the new closed mold shape line has been in a start-up phase for the last eighteen months and is now being commercialized. During frequent campaign changes (i.e. start-ups, shutdowns, and color transitions) some reacting mix is purged into fiber drums located under a ventilation hood. The polymerization reaction continues as the mix accumulates in the drum and normally hardens to a rock-hard solid in less than 10 minutes. All the peroxide present in the raw mix is consumed during this process.

Shape line purge (Filled Poly(Methyl Methacrylate)) material cannot be recycled back into the process and must be discarded. In 1992, 297.3 tons of purge waste were generated resulting in a waste per production index of 0.2. 45.7 tons of the waste were sent off-site in 1992 for incineration. Disposal costs totaled \$40,000 including transportation, treatment and final disposition of the waste. TCLP analysis of the solid surface material indicates that it does not exceed the RCRA Toxicity Characteristic Regulatory thresholds for metals and organics. Once the entire drum of material has completely hardened, it no longer exhibits the characteristics of an ignitable hazardous waste pursuant to 6NYCRR 371.3(b). The solidified waste does not, therefore, require to be managed or manifested as a hazardous waste. However, all shipments for disposal are accompanied by a Land Disposal Notification form and treatment of the waste is in keeping with that of a D001 waste with a TOC content greater than 10% pursuant to 6NYCRR Part 376.4(c) Table 2.

Evaluation of Waste Minimization Alternatives

Raw material substitution and redesign/reformulation of Corian® shape products are not technically nor economically feasible options. Because of the nature of the shape line waste, closed loop recycle/reuse of the waste stream is also not technically feasible. Two programs currently which will significantly reduce the amount of WFY-017 waste generation and of the waste that is generated, the amount which will require disposal are:

- 1) Improve the operating efficiency of the new closed mold shape line and classic shape line.
- 2) The recycle and resale of ground shape line purge waste.

Improve the operating efficiency of the new closed mold shape line and classic shape line.

The primary reasons that the generation of WFY-017 was high in 1992 was due to start-up and other unforeseen problems in the operation of the process. This has resulted in a larger number of shutdowns than originally planned. The business' primary goal is to eliminate these problems and make the process efficient enough to reduce the frequency of troubleshooting and maintenance shutdowns. Ultimately, the process will run far more continuously which translates into fewer shutdowns and, therefore, less waste generation. Waste will still be generated due to shutdowns for color changes and necessary maintenance operations, however, an estimated 20% reduction in waste is expected by 1995 from the improved efficiency of the closed mold operation.

The current difficulties with the new closed mold line has caused the Corian® business to still rely heavily on the older classic shape line to meet customer demands. This process is only semi-continuous and has a higher waste/product ratio as compared to the new closed mold line. Once the newer line is operating as it was intended to, the classic shape line will be less utilized. It will be used primarily for experimental work and small amounts of specialty colored bowls. An estimated reduction of 6% of WFY-017 waste is expected by the partial closure of this line and operator retraining (around specialty items) by year end 1994.

It should be noted that in 1992, the new closed mold line operated as an experimental unit for the first part of the year. In 1993, it is currently operating less than 50% of the available time. As sales and production expand, the total volume of waste may also expand, even while the waste/product ratio decreases. Since increasing operating efficiency and increasing production are occurring simultaneously, it is difficult to predict what a typical year's waste generation will be. Waste minimization efforts, however, will continue to focus not only on reducing the waste/product ratio but, in reducing the total amount of purge waste generated from this process.

The recycling and resale of ground shape line purge waste.

There is a waste minimization team currently working with outside vendors to find markets for ground shape line purge waste as a filler material for other products. The Corian® technology group is also investigating ways to recycle more ground purge material back into some of our sheetline products. Currently, 10% of total waste Corian® is recycled back into our products. It is difficult to accurately predict how much of the shape line purge can be diverted from disposal by these two projects because one (resale) will be market driven and the other (in-house recycling) is based upon technology still being developed. The best estimates to date indicate that by 1995 the resale/recycle program could achieve a 34% reduction in the amount of shape line hazardous waste not requiring treatment and disposal.

CORIAN[®] BOWL AND SINK PROCESS

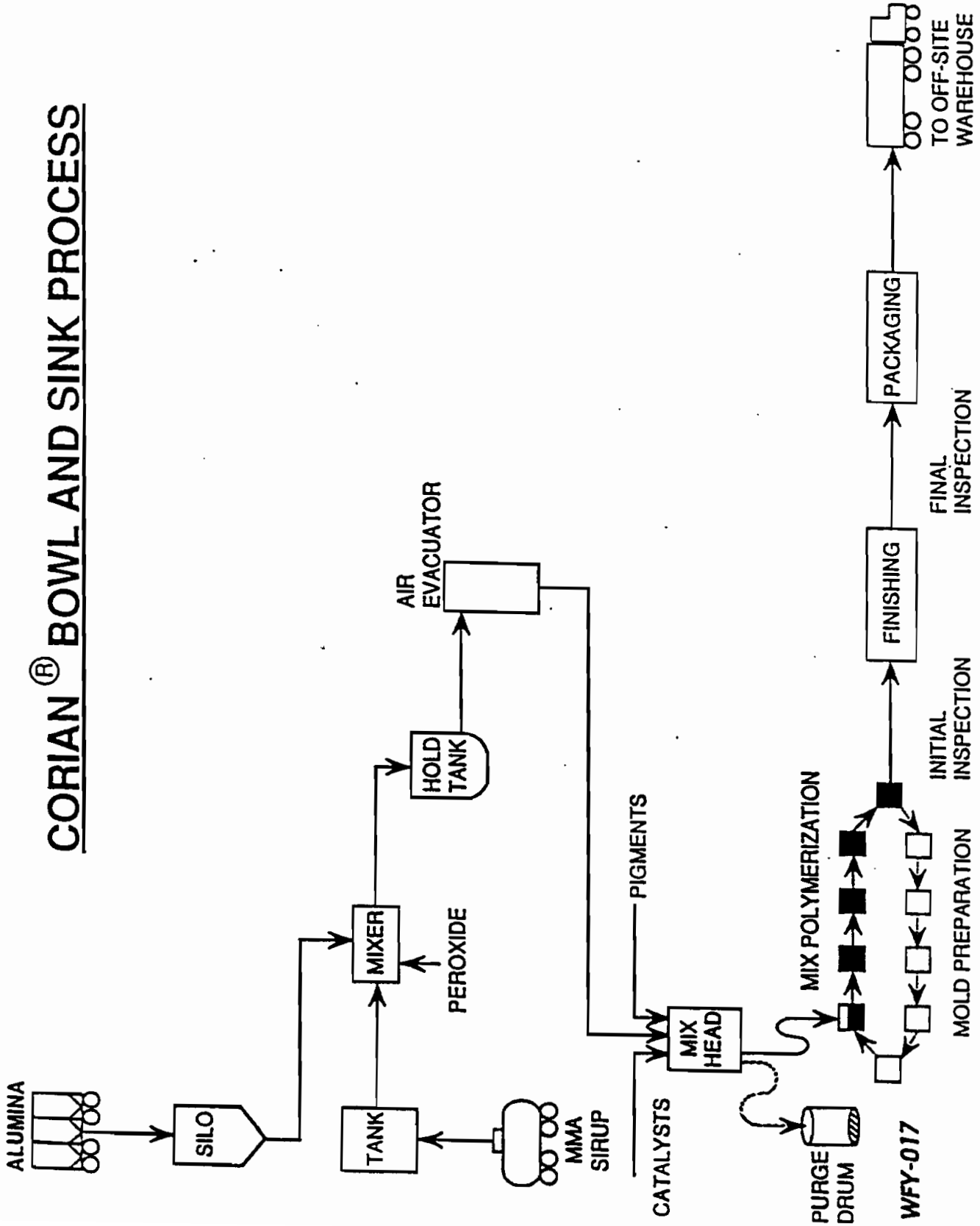


Figure A

3. Waste Streams WFY-061A/061B

Hazardous Waste Identification

During 1992, the DuPont Buffalo Plant removed and disposed of the last of 13 known PCB contaminated transformers (WFY-061A & 061B). The transformers (PCB concentration >50 ppm but <500 ppm) converted incoming electricity from the Niagara Mohawk Power Plant to the appropriate voltage and current levels required to meet the power and lighting needs for the Buffalo Plant. They were replaced with non-PCB transformers.

In 1992, 61.62 tons of PCB contaminated oil and 32.23 tons of PCB contaminated transformer carcasses were generated and sent off-site for incineration (Figure B). Disposal costs for the two waste streams amounted to \$76,890 including labor, transportation, treatment and final disposition of the waste. A waste production index is not provided since replacement of the transformers was driven by corporate directives around groundwater protection, alternate power requirements for the plant, and the need to remove obsolete equipment.

Evaluation of Waste Minimization Alternatives

Since it is anticipated that these waste streams will no longer be generated, a Waste Minimization plan for WFY-061A & 061B is not included in this HWRP.

**PCB Contaminated Transformers
DuPont Buffalo Plant**

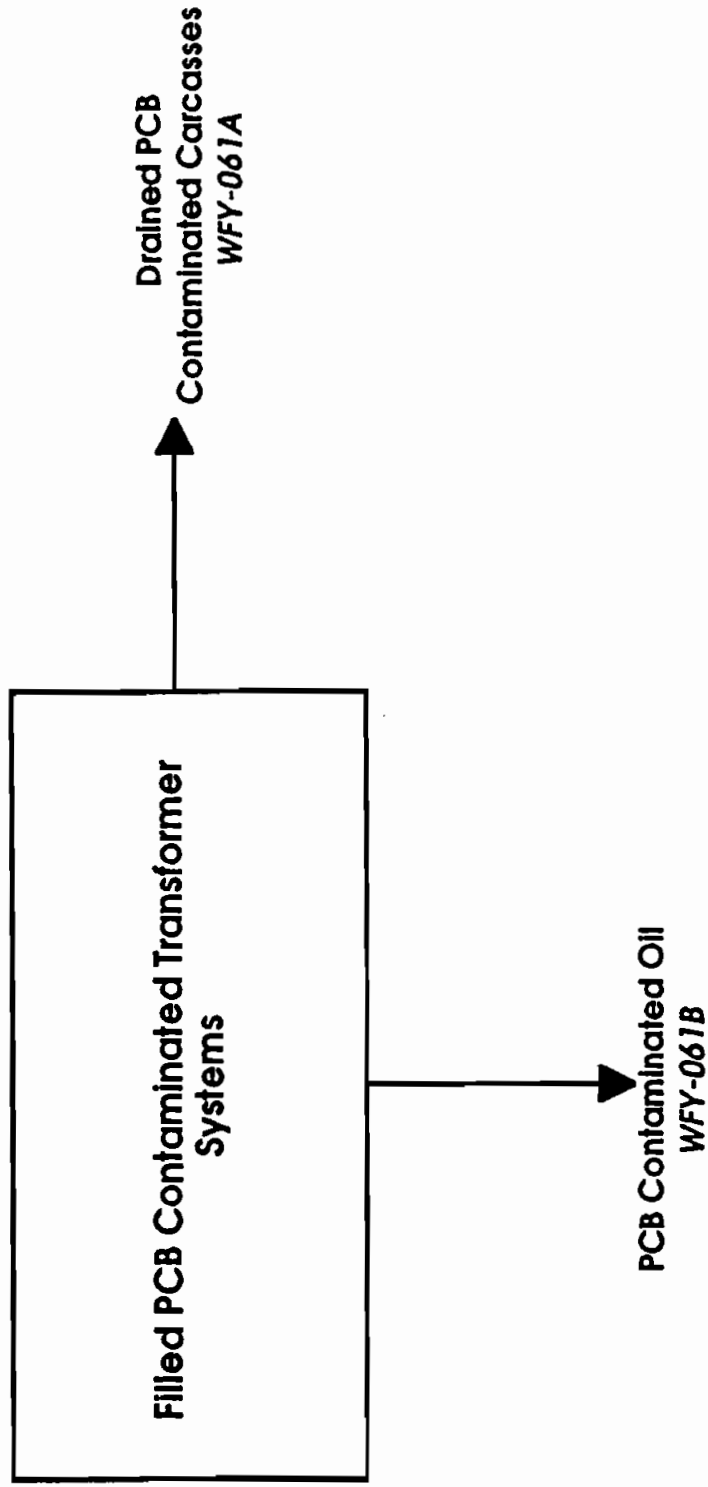


Figure B

APPENDIX 5
ENVIRONMENTAL REVIEW CHECKLIST
2 MILE RADIUS ENVIRONMENTAL CONSTRAINTS/RESOURCES SUMMARY
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM (RCIS) ACTIVE AND
HISTORIC APPLICATION PRINTOUTS

MULTIMEDIA ENVIRONMENTAL REVIEW CHECKLIST

FACILITY ID # _____
 PROJECT NAME/ADDRESS Du Pont-Terkes
 APPLICANT/SPONSOR _____
 CITY/TOWN/VILLAGE Horawanda (H) County COUNTY One
 USGS QUAD Buffalo NW NYTM E 180.7 N 4764.4
 REVIEWED BY N Maniak DATE 1/18/94

	FACILITY	TWO MILE RADIUS
FRESHWATER WETLANDS	YES <input type="radio"/>	NO <input checked="" type="radio"/>
WETLAND NAME <u>East River Wetland #</u> <u>BW-2</u> CLASS <u>1</u> <small>Beaver Is. State</small> <u>Bw-8 - class</u> <u>Bw-6 - 1</u>		
PROTECTED STREAM <u>Facility is near bank of Niagara River</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
STREAM NAME <u>on back</u> CLASS _____ STANDARD _____ 6NYCRR ITEM # _____ PAGE _____		
NAVIGABLE WATERS	YES <input checked="" type="radio"/>	NO <input type="radio"/>
COASTAL MANAGEMENT AREA <u>*on border of.</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
SIGNIFICANT HABITAT	YES <input checked="" type="radio"/>	NO <input type="radio"/>
LWRP DRAFT / FINAL	YES <input type="radio"/>	NO <input type="radio"/>
(TAL EROSION AREA (PART 505)	YES <input type="radio"/>	NO <input checked="" type="radio"/>
ARCHAEOLOGICAL / HISTORICAL SITE	YES <input checked="" type="radio"/>	NO <input type="radio"/>
PRINCIPAL / PRIMARY AQUIFER	YES <input type="radio"/>	NO <input checked="" type="radio"/>
AGRICULTURAL DISTRICT No. _____	YES <input type="radio"/>	NO <input checked="" type="radio"/>
100 YEAR FLOOD PLAIN <u>on back</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
FLOODWAY MAP # _____ FIRM MAP # _____		
HAZARDOUS WASTE SITE	YES <input checked="" type="radio"/>	NO <input type="radio"/>
SITE NAME _____ SITE # _____ PRIORITY _____ <u>on separate sheet.</u>		
NATURAL HERITAGE SITE / SIGNIFICANT HABITAT <u>Fac. - NO. Radius - yes</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
QUAD CODE <u>4207888</u> LUNAR CODE <u>2787</u> DOT CODE _____ <u>Sign. Habit - SW-15-003</u> <u>SW-15-003</u>		
NIAGARA RIVER AREAS OF CONCERN (A.O.C.) <u>#2, 3, 4: weed beds</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
CRITICAL ENVIRONMENTAL AREA	YES <input type="radio"/>	NO <input checked="" type="radio"/>
<small>CHTG. - REINSTEIN WOODS/WETLANDS/STIGLMEIER PARK/CAYUGA CREEK & FP HAMBURG-18 MILE CREEK, S. BRANCH 18 MILE CREEK (EDEN BRANCH), HAMPTON BROOK</small>		
OIL/GAS WELL # <u>included on attached map.</u>	YES <input type="radio"/>	NO <input checked="" type="radio"/>
WILD, SCENIC & RECREATIONAL RIVER	YES <input type="radio"/>	NO <input checked="" type="radio"/>
<u>GENESEE RIVER IN LETCHWORTH PARK</u>		
HYDRIC SOILS (Projects greater than 1 acre) <u>1/4</u> acres	YES <input type="radio"/>	NO <input type="radio"/>
REMARKS _____		

Streams

- ① Niagara River - American Side, ° A-Special, 837.4 Pg 1607. #1
- ② Two mile Creek + tribs. + P22-° B.B. 837.4 Pg 1618 #114

Flood plain.

- (+) Tonawanda, 360260-4, 1, - Yes along Niagara River.
- " " 360260-2, 5, 7 ~~PO~~ - Panels not printed.

- (+) Grand Island - Strawberry Island to International border - Yes
360242-14.

- " " " 360242-12 Yes
- " " " 360242-11 Yes

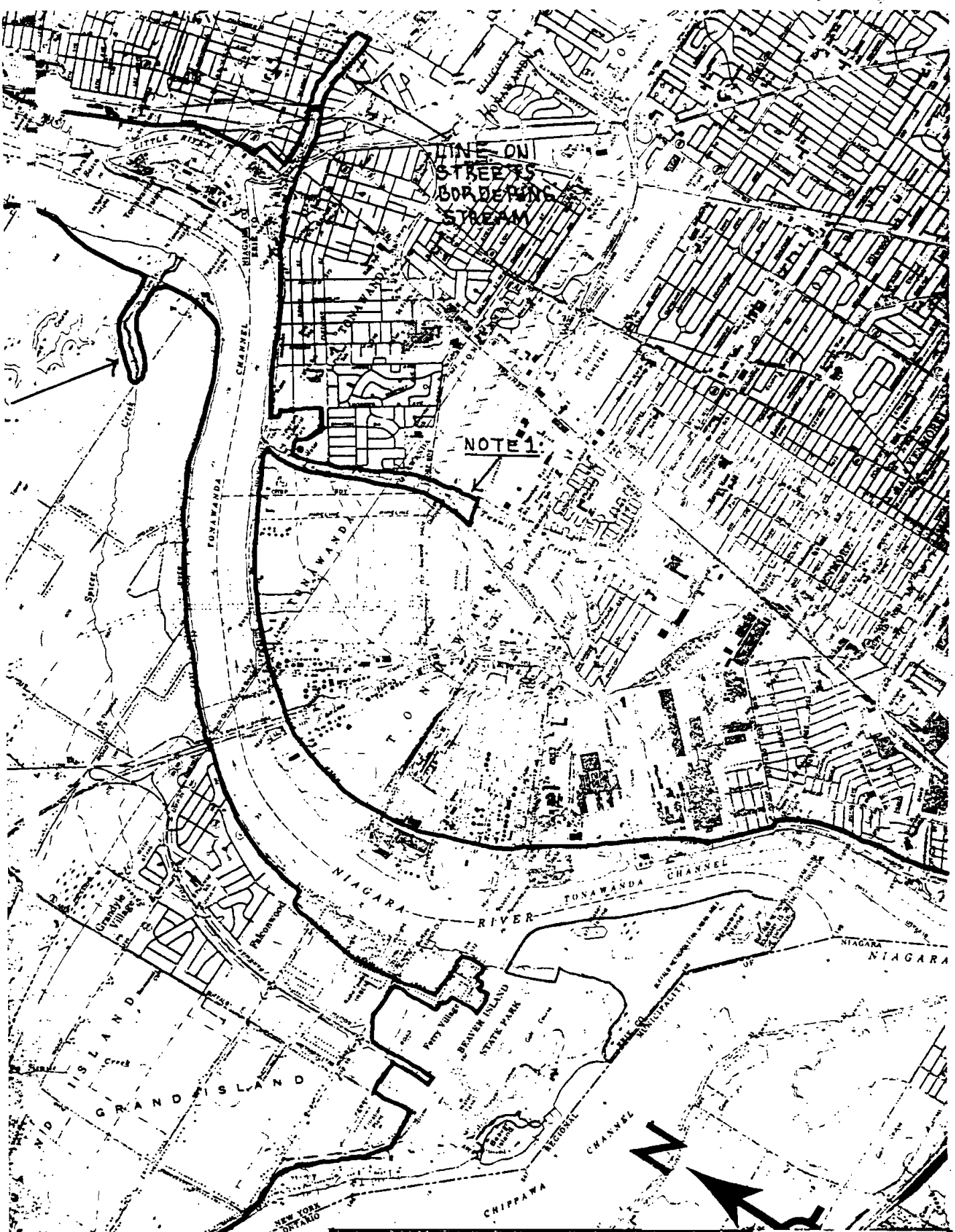
Natural Heritage

Strawberry Island - # \triangle_2 \triangle_3

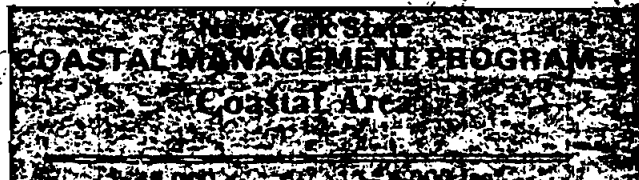
Motor Island - # $\textcircled{8}$

**INACTIVE HAZARDOUS WASTE SITES WITHIN A TWO MILE
RADIUS OF THE DUPONT YERKES PLANT**

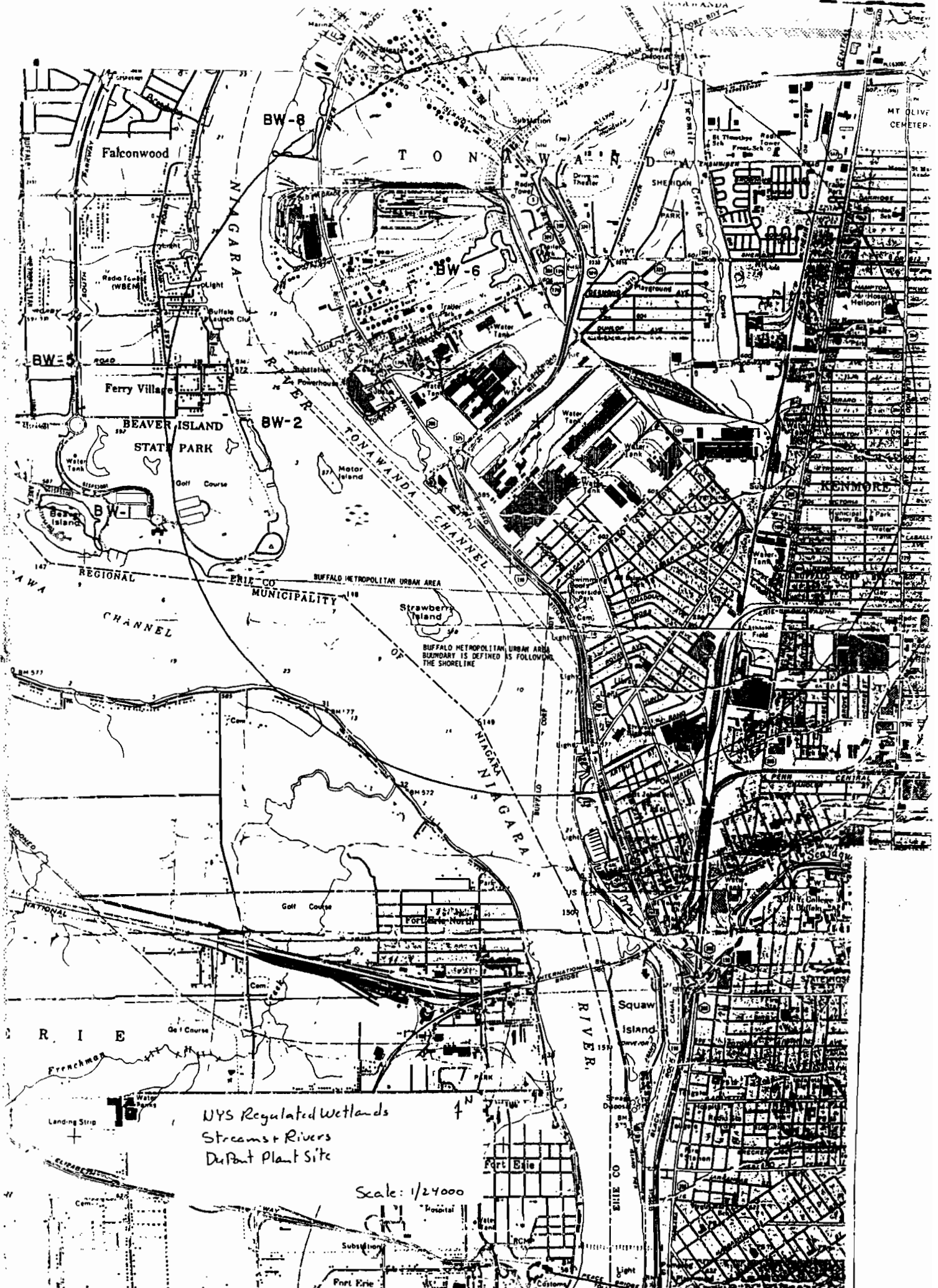
SITE NAME	REGISTRY NUMBER	CLASSIFICATION
FACILITY		
E.I DuPont Company	915019	2a
TWO MILE RADIUS		
Allied Specialty Chemical	915003B	2a
Aluminum Matchplate	915005	2a
Anaconda Company/American Brass	915007	3
Ashland Oil Company	915008A,B,C	Delisted
Dunlop Tire Corporation	915018A,B,C	3
FMC Corporation - Chemical Division	915025	2a
Pennwalt-Lucidol	915035	Delisted
River Road Site	915031	2
Polymer Applications	915044	2
Shanco Plastics	915048	2a
Tonawanda Coke	915055	2
Roblin Steel	915056	2
Seaway/Niagara Landfill	915074	4
O-Cel-O Sponge Facility	915148	3



See Map 5



COASTAL MANAGEMENT PROGRAM
 Coastal Area
 JANUARY 1981
 MAP NUMBER
 6



NYS Regulated Wetlands
Streams + Rivers
DuPont Plant Site

Scale: 1/24000

TWO MILE RADIUS ENVIRONMENTAL CONSTRAINTS/RESOURCES SUMMARY

- Three freshwater wetlands regulated pursuant to Article 24 of the Environmental Conservation Law and comprising 52 acres. Freshwater Wetlands BW-2 (9 acres) and BW-8 (13 acres) are designated Class I (the most important of the four wetland classes). BW-2 being only 9 acres in size was also deemed to be of unusual local importance and is associated with the Strawberry Island-Motor Island Significant Coastal Habitat. Freshwater Wetland BW-6 (30 acres) is designated Class II.
- 20,400 feet of the Niagara River including parts of the East and West Branches having an "A-Special (international boundary waters)" water quality classification (best use: drinking).
- 16,600 feet of the Two Mile Creek, its tributaries, and P22 (Sheridan Golf Course Pond with a surface area of about six acres) having a "B" water quality classification (best use: primary contact recreation).
- 400 feet of Tributary 14 to the Niagara River having a "C" water quality classification (best use: fisheries).
- The Niagara River is navigable, with its Tonawanda Channel maintained for commercial shipping of coal, petroleum products, etc.
- Coastal Management Area subject to state/federal certification requirements for consistency with New York State's 44 coastal policies borders the Yerkes Plant and extends along the Niagara River.
- Significant Coastal Habitat consisting of the "Strawberry Island - Motor Island Shallows". This is the largest riverine littoral zone and wetland in the Niagara River and is a rare ecosystem type in the Great Lakes Plain ecological region. It is used by one of the largest concentrations of wintering waterfowl in the northeastern United States and is a major muskellunge spawning area in the Great Lakes Region. It is considered an irreplaceable habitat.
- Riverside Park is listed in the State Register of Historic Places.
- The Yerkes Plant is within an archaeologically sensitive area as mapped using information from the NYS Museum and the NYS Historic Preservation Office. Other sensitive areas are encompassed within the two mile radius.
- 100-year floodplains are located along the Niagara River shore and at Strawberry Island.
- The Yerkes Plant contains an inactive hazardous waste site that is assigned a "2a" classification (i.e. a temporary classification assigned to sites that have inadequate and/or insufficient data for inclusion in any of the other classifications). Fourteen other inactive hazardous waste sites are located within the radius.
- The Great Blue Heron, a New York State protected species, nests, feed, and rests in the Motor Island Area. The uncommon species Quillback and Greater Redhorse were identified at Strawberry Island.
- Seventeen unplugged gas wells are located within the radius.

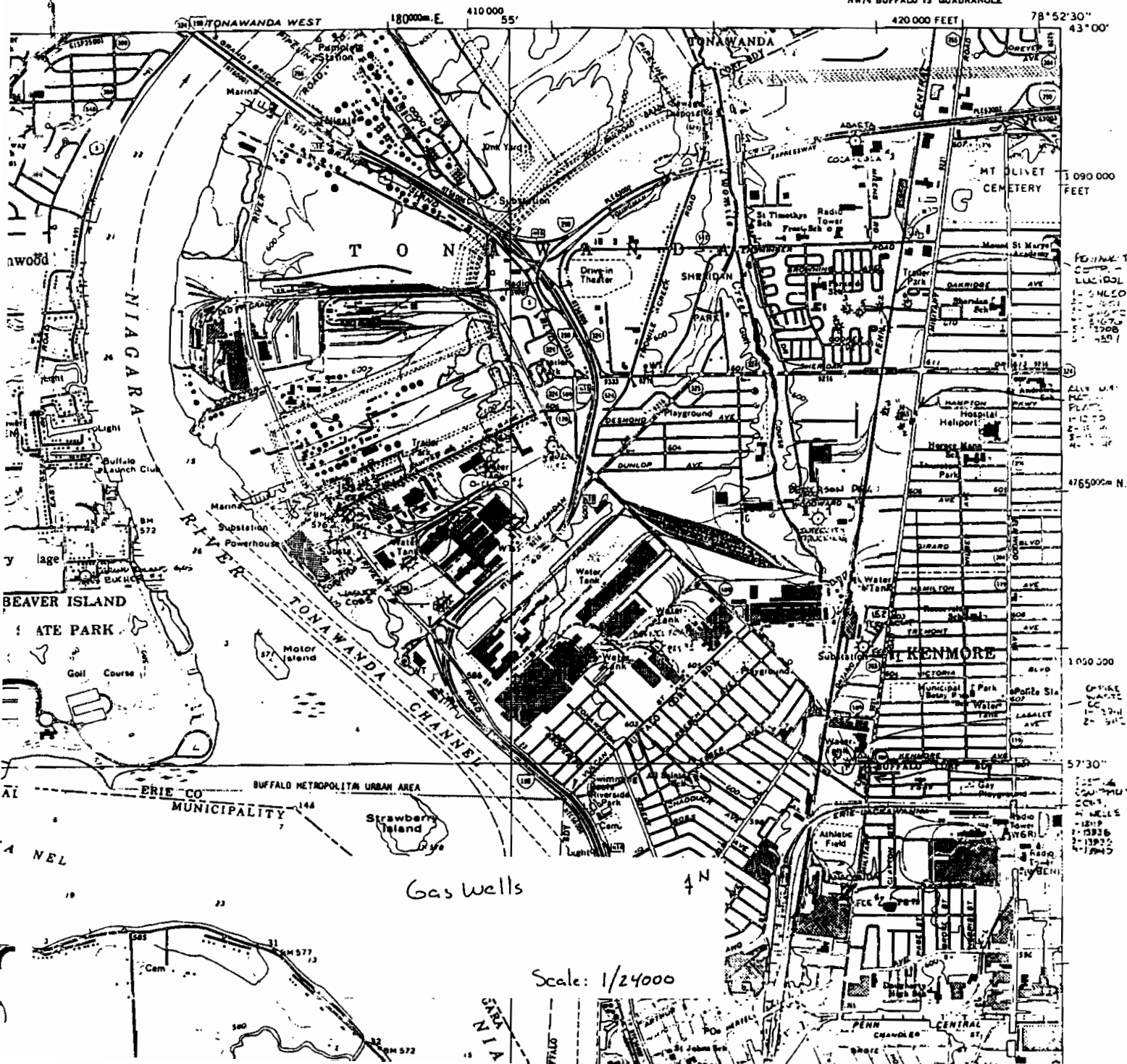


DO NOT FOLD

427

BUFFALO NW QUADRANGLE
NEW YORK-ONTARIO
7.5 MINUTE SERIES PLANIMETRIC
NW 1/4 BUFFALO 15' QUADRANGLE

TONAWANDA
EAST



Gas Wells

Scale: 1/24000

420 000 FEET
78° 52' 30"
43° 00"
1 090 000 FEET
4765000 N.
1 050 000
57° 30"

POINDEXE
CORP -
LUCIGLOL
1-24150
1-24151
1-24152
1-24153
1-24154
1-24155
1-24156
1-24157
1-24158
1-24159
1-24160

ALY U.S.
PLANNING
1-10-50
1-10-51
1-10-52
1-10-53
1-10-54
1-10-55

CRANE
CORP
1-13-51
1-13-52
1-13-53
1-13-54
1-13-55
1-13-56
1-13-57
1-13-58
1-13-59
1-13-60

ST. NIA

SELECTION >

SEARCH VALUE >

ID [9 - 1464 - 00031]
 NAME [E I DUPONT YERKES PLANT]
 STREET [SHERIDAN DR AT RIVER RD]
 CITY [BUFFALO] ZIP [14207 -]
 NYTM-E [180 . 7] NYTM-N [4 764 . 4] SWIS CODE [1464]

CONTACT [WILLIAM W ERWIN]
 COMPANY [] PHONE [(716) 879 - 4551]
 STREET []
 CITY [] STATE [] ZIP [-]
 PRGM ID [NY0001601] PRGM ID [1464000563] PRGM ID [RC2]
 PRGM ID [NYD002103513] PRGM ID [] PRGM ID []

OWNER ID [10448] OWNER NAME [E I DUPONT DE NEMOURS & CO]

SUMMARY > 40 APPLICATIONS 202 HISTORICAL APPLICATIONS 200 PERMITS
 MESSAGE > RETURN TO CONTINUE OR F6 FOR SUMMARY LIST
 F1) MAIN MENU F2) HELP F9) PAGE BACK F10) EXIT

4.4.1

APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

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TRACK IND	BATCH	DESCRIPTION			
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	T 184069	PC, EP 00027	TEDLAR J	CASE & K	CASE
-	9146400031000050	AO2	MOD 940720	PDE	E I DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION	POINTS	
-	9146400031000060	AO2	MOD 940720	PDE	E I DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION	POINTS	
-	9146400031000570	AO2	MOD 940720	PDE	E I DUPONT DE NEMOURS & C
	T 192567	CO, 28	EMISSION	POINTS	
-	9146400031000580	AO2	MOD 940720	PDE	E I DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION	POINTS	
-	9146400031000590	AO2	MOD 940720	PDE	E I DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION	POINTS	

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 34 MORE APPLICATIONS
 F1) MAIN MENU F5) HISTORICAL APPS F9) PAGE BACK F10) EXIT

4.4.1

APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

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192567	CO,	28	EMISSION POINTS			
9146400031000620	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
192567	CO,	28	EMISSION POINTS			
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192567	CO,	28	EMISSION POINTS			
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192567	CO,	28	EMISSION POINTS			
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192567	CO,	28	EMISSION POINTS			

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 28 MORE APPLICATIONS

F1) MAIN MENU F5) HISTORICAL APPS F9) PAGE BACK F10) EXIT

4.4.1

APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

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SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	ANLST	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION				
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9146400031000670	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
192567	CO,	28	EMISSION POINTS			
9146400031000680	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
192567	CO,	28	EMISSION POINTS			
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192567	CO,	28	EMISSION POINTS			
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192567	CO,	28	EMISSION POINTS			
9146400031000720	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
192567	CO,	28	EMISSION POINTS			

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 22 MORE APPLICATIONS

F1) MAIN MENU F5) HISTORICAL APPS F9) PAGE BACK F10) EXIT

4.4.1

APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	ANLST	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION				
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- 9146400031000740	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION POINTS			
- 9146400031000750	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION POINTS			
- 9146400031000990	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION POINTS			
- 9146400031001070	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION POINTS			
- 9146400031001080	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO, 28	EMISSION POINTS			

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 16 MORE APPLICATIONS

F1) MAIN MENU

F5) HISTORICAL APPS

F9) PAGE BACK

F10) EXIT

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APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

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SEARCH VALUE >

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APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

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- 9146400031001100	AO2	MOD	940110	PDE	E I	DUPONT DE NEMOURS & C
T	178249	CO,EP	00032,00101	CHANGE	CHEMICALS &	CORIAN SINK
- 9146400031001110	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO,	28	EMISSION	POINTS	
- 9146400031001150	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO,	28	EMISSION	POINTS	
- 9146400031001190	AO2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
	173375	CO,EP	00041,42,51,52,158-160,PC	00157		
- 9146400031001200	AO2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
	173375	CO,EP	00041,42,51,52,158-160,PC	00157		
- 9146400031001290	AO2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
	173375	CO,EP	00041,42,51,52,158-160,PC	00157		

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 10 MORE APPLICATIONS

F1) MAIN MENU F5) HISTORICAL APPS F9) PAGE BACK F10) EXIT

4.4.1

APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	ANLST	OWNER	NAME
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	192567	CO,	28	EMISSION	POINTS	
- 9146400031001340	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO,	28	EMISSION	POINTS	
- 9146400031001440	AO2	MOD	940720	PDE	E I	DUPONT DE NEMOURS & C
	192567	CO,	28	EMISSION	POINTS	
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	178249	CO,EP	00032,00101	CHANGE	CHEMICALS &	CORIAN SINK
- 9146400031001900	AC2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
T	173375	CO,EP	00041,42,51,52,158-160,PC	00157		

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 4 MORE APPLICATIONS

F1) MAIN MENU F5) HISTORICAL APPS F9) PAGE BACK F10) EXIT

SELECTION >

SEARCH VALUE >

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- 9146400031001920	AO2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031001930	AO2	MOD	931027	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031002050	AC2	NEW	940110	PDE	E I	DUPONT DE NEMOURS & C
	T	178248	PC,EP	00164		CORIAN FINISHING LINE DUST COLLECTOR

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 0 MORE APPLICATIONS

F1) MAIN MENU

F5) HISTORICAL APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

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SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
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- 9146400031000360	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031000370	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031000380	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031000390	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031000400	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					
- 9146400031000410	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 160 MORE APPLICATIONS
F1) MAIN MENU F5) ACTIVE APPS F9) PAGE BACK F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
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	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					
- 9146400031000440	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					
- 9146400031000450	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					
- 9146400031000460	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					
- 9146400031000470	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
	060165	PC,EP00031-00100 CORIAN SHEET & SHAPE LINES					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 154 MO

SELECTION >

SEARCH VALUE >

APPLICATION ID	P	A	D	D	A	O	N
TRACK IND	B	D					
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060165	PC,EP00031-00100						CORIAN SHEET & SHAPE LINES
- 9146400031000490	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
060165	PC,EP00031-00100						CORIAN SHEET & SHAPE LINES
- 9146400031000500	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
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- 9146400031000510	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
060165	PC,EP00031-00100						CORIAN SHEET & SHAPE LINES
- 9146400031000520	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
060165	PC,EP00031-00100						CORIAN SHEET & SHAPE LINES
- 9146400031000530	AC2	NEW	901024	I	PDE	E I	DUPONT DE NEMOURS & C
060165	PC,EP00031-00100						CORIAN SHEET & SHAPE LINES

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 148 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK F10) EXIT

SELECTION >

SEARCH VALUE >

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TRACK IND	BATCH	DESCRIPTION					
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120996	CO,	69 EMISSION POINTS, CORIAN					
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120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001270	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001280	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
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120996	CO,	69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 70 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
9146400031001310	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001320	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001330	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001340	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001350	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001360	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 64 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

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SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
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	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001380	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001390	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001400	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001410	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001420	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 58 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

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SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
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	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001450	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001460	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001470	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
- 9146400031001480	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 52 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
9146400031001490	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001500	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001510	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001520	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001530	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001540	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 46 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK F10) EXIT

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
9146400031001550	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001560	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001570	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001580	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001590	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					
9146400031001600	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
120996	CO,	69 EMISSION POINTS, CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 40 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
- 9146400031001610	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001620	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001630	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001640	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001650	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001660	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 34 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
- 9146400031001670	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001680	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001690	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001700	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001710	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	
- 9146400031001720	AO2	NEW	920306	I	PDE	E I	DUPONT DE NEMOURS & C
	120996	CO,	69	EMISSION	POINTS,	CORIAN	

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 28 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
-	9146400031001730	AO2	NEW	920306	I	PDE E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
-	9146400031001740	AO2	NEW	920306	I	PDE E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
-	9146400031001750	AO2	NEW	920306	I	PDE E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
-	9146400031001760	AO2	NEW	920306	I	PDE E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
-	9146400031001770	AO2	NEW	920306	I	PDE E I	DUPONT DE NEMOURS & C
	120996	CO, 69 EMISSION POINTS, CORIAN					
-	9146400031001780	AO2	NEW	920324	I	PDE E I	DUPONT DE NEMOURS & C
	X 122211	CO,EP 56; PC,EP 108, 109 CORIAN					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 22 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
-	9146400031001790	AC2	NEW	920324	I	PDE E I	DUPONT DE NEMOURS & C
	T 122211	CO,EP 56; PC,EP 108, 109 CORIAN					
-	9146400031001800	AC2	NEW	920324	I	PDE E I	DUPONT DE NEMOURS & C
	122211	CO,EP 56; PC,EP 108, 109 CORIAN					
-	9146400031001810	AO2	NEW	930119	I	PDE E I	DUPONT DE NEMOURS & C
	T 148745	CO,EP# 00101 - 00109 CORIAN & TEDLAR					
-	9146400031001820	AO2	NEW	930119	I	PDE E I	DUPONT DE NEMOURS & C
	148745	CO,EP# 00101 - 00109 CORIAN & TEDLAR					
-	9146400031001830	AO2	NEW	930119	I	PDE E I	DUPONT DE NEMOURS & C
	148745	CO,EP# 00101 - 00109 CORIAN & TEDLAR					
-	9146400031001840	AO2	NEW	930119	I	PDE E I	DUPONT DE NEMOURS & C
	148745	CO,EP# 00101 - 00109 CORIAN & TEDLAR					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 16 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
9146400031001850	AO2	NEW	930119	I	PDE	E I	DUPONT DE NEMOURS & C
T	148745	CO,EP# 00101 - 00109			CORIAN	& TEDLAR	
9146400031001860	AO2	NEW	930119	I	PDE	E I	DUPONT DE NEMOURS & C
T	148745	CO,EP# 00101 - 00109			CORIAN	& TEDLAR	
9146400031001870	AO2	NEW	930119	I	PDE	E I	DUPONT DE NEMOURS & C
T	148745	CO,EP# 00101 - 00109			CORIAN	& TEDLAR	
9146400031001880	AO2	NEW	930119	I	PDE	E I	DUPONT DE NEMOURS & C
T	148745	CO,EP# 00101 - 00109			CORIAN	& TEDLAR	
9146400031001890	AO2	NEW	930119	I	PDE	E I	DUPONT DE NEMOURS & C
T	148745	CO,EP# 00101 - 00109			CORIAN	& TEDLAR	
9146400031001940	AO2	MOD	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176168	PC, EP 00021 MONOMER TANK VENT					

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 10 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

4.6.1

HISTORICAL APPLICATIONS LIST
NYSDEC REGULATORY COMPLIANCE INFORMATION SYSTEM

94-08-11

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
9146400031001950	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	
9146400031001960	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	
9146400031001970	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	
9146400031001980	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	
9146400031001990	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	
9146400031002000	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
T	176169	PC,EP#149-156			CORIAN	SYRUP MANUFACTURING PROCESS	

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 4 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK

F10) EXIT

SELECTION >

SEARCH VALUE >

APPLICATION ID	PTYPE	ATYPE	DATE	DISP	ANLS	OWNER	NAME
TRACK IND	BATCH	DESCRIPTION					
- 9146400031002010	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
	176169	PC, EP#149-156	CORIAN				SYRUP MANUFACTURING PROCESS
- 9146400031002020	AC2	NEW	931207	I	PDE	E I	DUPONT DE NEMOURS & C
	176169	PC, EP#149-156	CORIAN				SYRUP MANUFACTURING PROCESS
- 9146400031002030	AC2	NEW	931230	I	PDE	E I	DUPONT DE NEMOURS & C
	T	177741	PC. EP 00161				VAZO & MEHQ LOADING PORT EXHAUST
- 9146400031002040	AO2	MOD	931230	I	PDE	E I	DUPONT DE NEMOURS & C
	T	177743	CO, EP 00137				MOD VAZO STORAGE ROOM EXHAUST

MESSAGE > PLACE A LETTER NEXT TO CHOICE - 0 MORE APPLICATIONS

F1) MAIN MENU

F5) ACTIVE APPS

F9) PAGE BACK F10) EXIT

APPENDIX 6
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

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

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 915019
EPA ID: NYD000521823

NAME OF SITE : E.I. DuPont Company
STREET ADDRESS: Sheridan Drive and River Road
TOWN/CITY: COUNTY: ZIP:
Tonawanda Erie 14217

SITE TYPE: Open Dump- X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: 30-40 Acres

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER NAME....: E.I. DuPont de Nemours & Company
CURRENT OWNER ADDRESS.: Sheridan Dr., Station B, Buffalo, NY
OWNER(S) DURING USE...: E.I. DuPont de Nemours & Company
OPERATOR DURING USE...: E.I. DuPont de Nemours & Company
OPERATOR ADDRESS.....: Sheridan Dr., Station B, Buffalo, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1921 To 1978

SITE DESCRIPTION:

Waste "Corion", "Tedlar", "Vexar", Rayon, cellophane, polyvinyl alcohol film, paint and laboratory chemicals were disposed in ten pits, each 15-20 feet deep. These pits were then backfilled with foundry sand. Monitoring wells have been installed around the site. Samples by DuPont indicate that concentrations of sulfate, chloride, barium, lead, and mercury exceeded N.Y.S. DEC groundwater standards. Groundwater samples collected in 1982 by the USGS did not indicate any organic priority pollutants, although 30 nonpriority pollutants were detected. Soil samples collected by NUS in 1984 contained polynuclear aromatic hydrocarbons (PAHs), methylene chloride, and several phthalates. Groundwater samples contained phenols, PAHs, pesticides and benzene. A Phase I Investigation was completed in 1990. DuPont has conducted a Phase II Investigation at this site. The report has been submitted and reviewed with comments forwarded to Du Pont. A response is pending. Only one of the ten disposal pits were found to contain elevated contaminant levels. Du Pont proposes to complete additional investigations in this area.

HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY (units)
-----	-----
Lab Chemicals and paint	76 tons
Polyvinyl alcohol film	100 tons
Various organic wastes from manufacturing processes.	91,350 tons

SITE CODE: 915019

ANALYTICAL DATA AVAILABLE:

Air- Surface Water- Groundwater-X Soil-X Sediment-

CONTRAVENTION OF STANDARDS:

Groundwater-X Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE...: Consent Order P-II State- X Federal-
STATUS: Negotiation in Progress- Order Signed- X

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-
NATURE OF ACTION: None

GEOTECHNICAL INFORMATION:

SOIL TYPE: Fill overlying dense silty clay, reddish
GROUNDWATER DEPTH: 4 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Groundwater samples have exceeded standards for sulfate, chloride, barium, lead, mercury, phenol, 4,4-DDD, 4,4-DDT and benzene. Additional data is needed to determine the extent of possible contamination at one of the ten disposal pits that contained elevated contaminant levels.

ASSESSMENT OF HEALTH PROBLEMS:

Access to the plant is limited to plant employees. Groundwater samples have shown low-level metal contamination. No known private drinking wells are present as the area is serviced by public water however, there are numerous industrial wells in the area. The potential for human exposure to contaminants from this site is minimal. Continued monitoring of groundwater is recommended.

APPENDIX 7
CHEMICAL AND PETROLEUM BULK STORAGE PROGRAMS
FACILITY INFORMATION REPORTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Chemical Bulk Storage Program
 Facility Information Report

CBS # : 9-000025

Site : YERKES PLANT-FABRICATED PRODUCTS DEPT.
 SHERIDAN DR. STATION 8
 BUFFALO, NY 14207

Owner : E.I. DUPONT DE NEMOURS & CO.
 SHERIDAN & RIVER RD.
 TONAWANDA, NY 14150

County : ERIE Town : TONAWANDA
 Latitude : 42|57|40 N Longitude : 78|55|20 W
 Oper : R.P. HUGHES JR. (716) 876-4420
 Emer : WILLIAM W. ERVIN (716) 879-4551
 Type of Site : Manufacturing

Phone : (716) 876-4420
 Owner Type : Corporate/Commercial
 Mail : E.I. DUPONT DE NEMOURS & CO.
 SHERIDAN & RIVER RD.
 PO BOX 88
 BUFFALO, NY 14207
 Att : WILLIAM W. ERVIN (716) 876-4420

SPDES # : 0-001601
 PBS # : 9-125407 MOSF # :

Site Stat. : 1 -No Errors
 Own Stat. : 1 -No Errors
 Tank Stat. : 1 -No Errors

Site Status : 1 -Active
 Total Tanks : 3
 Total Capacity : 41,000
 Date App. Rcvd : 12/30/92
 Amount Paid : 675
 Cert. Date : 03/31/94
 Renewal Date : 12/01/92
 Expiration Date : 03/10/95

TankNo	TankLoc	Stat	DateIn	Capac (g)	Casno	Chemical Name	TankType	TankIP	TankE	TankSC	PipeLoc	PipeType	PipeIP	PipeEP	PipeSC	Leak	Spill	SubDes	%Haz	TStat
001	1	1	08/86	34,000	80626	2-Propenoic acid, 2-	2	0	1	1	1	3	0	1	0	0	2	1	100	1
006	1	1	09/89	3,800	1310732	Sodium hydroxide	1	0	1	1	1	3	0	1	0	0	2	1	50	1
007	1	1	09/89	3,200	7664939	Sulfuric acid	1	0	1	1	1	3	0	1	0	0	2	1	99	1
002	1	3	09/86	750	7664939	Sulfuric acid	1					1								REMOVED:00/00
003	1	5	08/71	4,400	80626	2-Propenoic acid, 2-	9	0	1	1	1	3	0	1	0	0	2	1	100	CONVERT:03/94
004	1	5	10/89	200	80626	2-Propenoic acid, 2-	1	0	1	0	1	3	0	1	0	0	2	1	100	CONVERT:03/94
005	1	5	02/90	20,000	80626	2-Propenoic acid, 2-	1	0	1	1	1	3	0	1	0	0	2	1	100	CONVERT:03/94

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Petroleum Bulk Storage Program
 Facility Information Report

PBS # : 9-125407

Site : EI DUPONT DE NEMOURS & CO INC
 SHERIDAN DRIVE & RIVER ROAD
 BUFFALO, NY 14207

Owner : EI DU PONT DE NEMOURS & CO INC
 P.O. BOX 88
 BUFFALO, NY 14207

Site status : Active
 Total Active Tanks : 8
 Active Capacity : 361,000 gals.

Phone : (716) 876-4420
 Owner Type : Corporate/Commercial

County : ERIE Town : BUFFALO (C)
 Latitude : 42|57|40 N Longitude : 78|55|20 W
 SPDES# : 0-001601 CBS# : 9-000025
 Site Type : Manufacturing

Reg Expires : 07/20/97
 Last Inspection : 08/09/93
 Cert Printed : 07/15/94

Site Errors : Complete
 Owner Error : Complete
 Tank Errors : Complete

Operator : EI DU PONT DE NEMOURS & CO INC (716) 879-4551
 Emergency : WILLIAM W. ERVIN (718) 876-4420

Att : MR. WILLIAM W ERVIN (716) 876-4420

Mail : EI DU PONT DE NEMOURS & CO INC
 P.O. BOX 88
 BUFFALO, NY 14207

TankNo	TankLoc	Stat	DateIn	Capac (g)	Product	TankType	TankInt	TankExt	PipeLoc	PipeType	PipeInt	PipeExt	SecCont	Leak	OverFil	Disp	LastTest	NextTest	TStat
1	1	2	01/66	28,000	4	1	0	10	1	1	0	60	B	0	4	2			1
2	1	2	01/66	48,000	4	1	0	10	1	1	0	60	B	00	40	2			1
3	1	2	01/66	48,000	4	1	0	10	1	1	0	60	B	00	40	2			1
4	1	2	01/71	225,000	4	1	0	10	1	1	0	60	B	00	40	2			1
5	1	2	01/66	10,000	3	1	0	10	1	1	0	60	B	00	40	2			1
6	1	1	07/94	500	6	1	0	10	1	1	0	00	27	10	20	2			1
7	4	1	01/83	1,000	2	1	0	00	2	2	0	00	02	01	40	2			1
8	2	1	07/90	500	6	1	0	10	1	1	0	00	50	00	00	3			1
6	4	3	01/78	2,000	6	1	0	00	2	2	0	00	00	00	40	2			REMOVED : 04/94
8	4	3	00/00	1,000	3	1	0	00	2	2	0	00	00	00	40	2			REMOVED : 05/92

APPENDIX 8
OIL AND HAZARDOUS MATERIAL SPILL - FACT SHEETS

NYS DEC Region 9
Oil & Hazardous Material Spill - Fact Sheet
09/02/94

Spill Name: DUPONT - YERKES PLANT
Spill No: 9205560

Spill Time: 1000
Spill Date: 08/05/92

Central Office Date: 08/13/92
Central Office Time: 1720

Answering Service Date: 08/13/92
Answering Service Time: 1645

Regional Office Date: 08/13/92
Regional Office Time: 1735

Material Class: Non petroleum/Non hazardous material
Petroleum Spilled: OTHER or NON-PETRO
Other Material: ETHYLENE GLYCOL

Quantity Spilled: 16.00 GALLONS
Quantity Recovered: 16.00 G
Spill Cause: EQUIPMENT FAILURE

Spiller: DUPONT
Street: SHERIDAN DRIVE
City, State, Zip: TONAWANDA, NY
Telephone:

Spill Source: COMMERCIAL EST. (no petro for sale)
Spill Location: SHERIDAN DRIVE
Municipality: TONAWANDA
County: ERIE

Waterbody:
Notifier: Responsible entity/spiller

Resources Affected: ON LAND
Drainage Basin: 102

Remarks:
RADIATOR HOSE ON GENERATOR RUPTURED

Caller: WILLIAM IRVINE
Affiliation: DUPONT
Telephone: 716-879-4551

Pin Number: 0
Status: COMPLETE
Cleaner: Spiller

T/A: 0
Cost Center Code (St.):
Clean Date: 12/28/93
Date I.S.R. sent to C.O.: / /

UST Trust Eligible?: No
Cost Center Code (Fed):

PBS Number: 0
Tank ID Numbers:

Close Date: 12/28/93

Investigator: MJS
Last Update: 12/30/93

NYS DEC Region 9
Oil & Hazardous Material Spill - Fact Sheet
09/02/94

Spill Name: DUPONT
Spill No: 9205746

Spill Time: 1630
Spill Date: 08/18/92

Central Office Date: 08/18/92
Central Office Time: 1930

Answering Service Date: 08/18/92
Answering Service Time: 1920

Regional Office Date: 08/18/92
Regional Office Time: 1935

Material Class: Non petroleum/Non hazardous material
Petroleum Spilled: OTHER or NON-PETRO
Other Material:

Quantity Spilled: 18.00 POUNDS
Quantity Recovered: 18.00 P
Spill Cause: EQUIPMENT FAILURE

Spiller: DUPONT
Street: RIVER ROAD
City, State, Zip: TONAWANDA, NY
Telephone: 716-879-4551

Spill Source: COMMERCIAL EST. (no petro for sale)
Spill Location: SHERIDAN DR AND RIVER RD
Municipality: TONAWANDA
County: ERIE

Waterbody:
Notifier: Responsible entity/spiller

Resources Affected: ON LAND
Drainage Basin: 101

Remarks:
CHILLER JOINT RUPTURED ON ROOF

Caller: TOM SAMPLES
Affiliation: DUPONT
Telephone: 716-879-4551

Pin Number: 0
Status: COMPLETE
Cleaner: Spiller
T/A: 0
Cost Center Code (St.):
Clean Date: 08/18/92
Date I.S.R. sent to C.O.: / /

UST Trust Eligible?: No
Cost Center Code (Fed):

PBS Number: 0
Tank ID Numbers:

Close Date: 08/18/92

Investigator: JDC
Last Update: 08/25/92

