

7/6 Paul Counterman

RECEIVED

JUL 05 1988

DIRECTOR'S OFFICE
DIVISION OF HAZARDOUS
SUBSTANCES REGULATION

June 30, 1988

Mr. Steven J. Doleski
Regional Permit Administrator
NYSDEC
600 Delaware Ave.
Buffalo, NY 14202

CERTIFIED MAIL --
RETURN RECEIPT REQUESTED

Re: Information Regarding Potential Hazardous Waste
and Hazardous Waste Constituent Releases From
Solid Waste Management Units

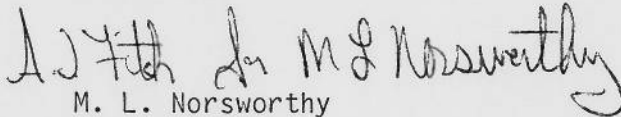
Olin Corporation
Niagara Falls, N.Y.
EPA I.D. No. NYD002123461

Dear Mr. Doleski:

Enclosed is the completed questionnaire: "Information Regarding Potential Hazardous Waste and Hazardous Waste Constituent Releases from Solid Waste Management Units" for Olin's response to your letter of May 4, 1988.

If you have any questions concerning the enclosed, please contact Mr. A. F. Kapteina at (716)278-6584 or Mr. A. L. Feldman at (615)336-4510.

Sincerely,


M. L. Norsworthy
Plant Manager

cc: Edward Belmore
Regional Hazardous Waste Engineer
NYSDEC
600 Delaware Ave.
Buffalo, NY 14202

N. G. Kaul
Division of Hazardous Substances Regulation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-4016

Chief
Hazardous Waste Facility Branch
USEPA Region II
26 Federal Plaza
New York, NY 12078

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION REGARDING SOLID WASTE
MANAGEMENT UNITS

FACILITY NAME: Olin Corporation
FACILITY EPA I.D. NO. NYD002123461

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

M. L. Norsworthy, Plant Manager
Name & Official Title (type or print)

Atty for M L Norsworthy 6/30/88
Signature Date Signed

CHECKLIST

The following is a checklist that identifies a completed questionnaire response package. Each box indicates a required portion of the submittal. Note that Part 2, the facility characterization form, the facility site plan (with SWMU code), and questionnaire certification forms are required. The number of Part 3 sections submitted will be facility-specific. The lines corresponding to 3-1 through 3-8 should indicate the number of units at your facility within each SWMU category and should correspond to the number of questionnaire packets submitted for these sections. Please return a copy of this checklist with your responses.

PART 2. FACILITY CHARACTERIZATION

☒

FACILITY SITE PLAN WITH SWMU CODE

☒

PART 3. SWMU IDENTIFICATION/RELEASE/REMEDIATION

☒

	<u>Active</u>	<u>Inactive</u>
3-1 CSAs AND TRANSFER STATIONS	<u>1</u>	<u>3</u>
3-2 LAND DISPOSAL (excluding land application and injection wells)	<u> </u>	<u>2</u>
3-3 WASTEWATER TREATMENT/RECYCLING UNITS	<u>3</u>	<u>3</u>
3-4 STORAGE/TREATMENT TANKS (excluding 3-3 units)	<u>1</u>	<u>1</u>
✓ 3-5 LAND APPLICATION AREAS	<u> </u>	<u>4</u>
3-6 INJECTION WELLS	<u> </u>	<u>1</u>
3-7 INCINERATOR AND THERMAL TREATMENT UNITS	<u>2</u>	<u> </u>
3-8 OTHER	<u> </u>	<u> </u>

QUESTIONNAIRE CERTIFICATION

☒

RESPONSE CHECKLIST

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2-1. FACILITY IDENTIFICATION AND LOCATION

1. Facility Name: Olin Corporation

2. EPA I.D. No.: NYD 002123461

3. SIC Code: 2812, 2869, 2819

4. Location: Street 2400 Buffalo Avenue
City Niagara Falls State NY County Niagara

5. Telephone No.: 716-278-6469

6. Check: Owner X Operator

1. Raw Materials Used: _____

2. Products: _____

3. Byproducts: _____

Recycled? _____ Specify: _____

Treated? _____ Specify: _____

1. Distance to nearest drinking water source (well or aquifer): 0.25 mi (Niagara River)

2. Depth to uppermost aquifer: Approx. 5 FT

3. Distance to nearest surface water body: In Plant (Gill Creek)

4. Surface water use: None

5. Distance to nearest offsite building: Adjacent

6. Distance to nearest sensitive environment (e.g., wet-preserved areas, or critical habitat): Not Known

7. Percent of facility lying within 100 year floodplain: 0 (acres of total acres = %)

8. Land use/zoning:

completely remote	<u> </u>
agricultural	<u> </u>
commercial or industrial	<u> X </u>
residential	<u> </u>

9. Net annual precipitation (estimate): -

0. Soil permeability (e.g., clay, sand; particle size):
See Attached Chart On Page 21A

1. Population within 5 miles: Approx. 70,000

OLIN CORPORATION
 NIAGARA FALLS PLANT
PRODUCTS, RAW MATERIALS AND WASTES

PRODUCTS	RAW MATERIALS	WASTES
1. Chlorine, Hydrogen, Sodium Hydroxide, Potassium Hydroxide, Sodium Hypochlorite (a)	Mercury, Sodium Chloride, Potassium Chloride, Sulfuric Acid, Hydrochloride Acid, Sodium Carbonate, Ammonia (Refrigerant), Methylene Chloride (Refrigerant)	D001, D002, D009, K071, K106
2. Sodium Methylate (a)	Methanol, Sodium Amalgam	D009, Methanol (Recycle)
3. Sodium Chlorite (a)	Sodium Chlorate, Hydrogen Peroxide, Sulfuric Dioxide	D002
4. Calcium Hypochlorite (b)	Calcium Oxide, Chlorine	Off-spec Calcium Hypochlorites (Treated)
5. Sodium Chlorate, Hydrogen (b)	Sodium Chloride, Sodium Chromate	Chromium Contaminated Solids
6. Sodium Methylate (b)	Sodium Ingots, Methanol	-Unknown-
7. Tin Tetrachloride (b)	Tin (c), Chlorine (c)	-Unknown-
8. Sulfur Monochloride (b)	Sulfur (c), Chlorine (c)	-Unknown-
9. Ammonia (b)	Hydrogen	-Unknown-
10. Diglycollic dihydrazide (b)	Hydrazine, Diglycollic Acid	Off-spec product
11. Monohydrazine Sulfate (b)	Hydrazine, Sulfuric Acid	Sulfuric Acid
12. Trichlorobenzene (b)	Alpha and Beta Hexachlorobenzene, Hydrochloric Acid	None
13. Trichlorophenol, (b) Tetrachlorobenzene (b)	Trichlorobenzene, Chlorine, Sodium Hydroxide, Methanol	Off-spec Trichlorophenol, Tetrachlorobenzene
14. Benzenehexachloride (BHC) (b)	Benzene, Chlorine	Alpha & Beta isomers Benzene-hexachloride (Recycled)

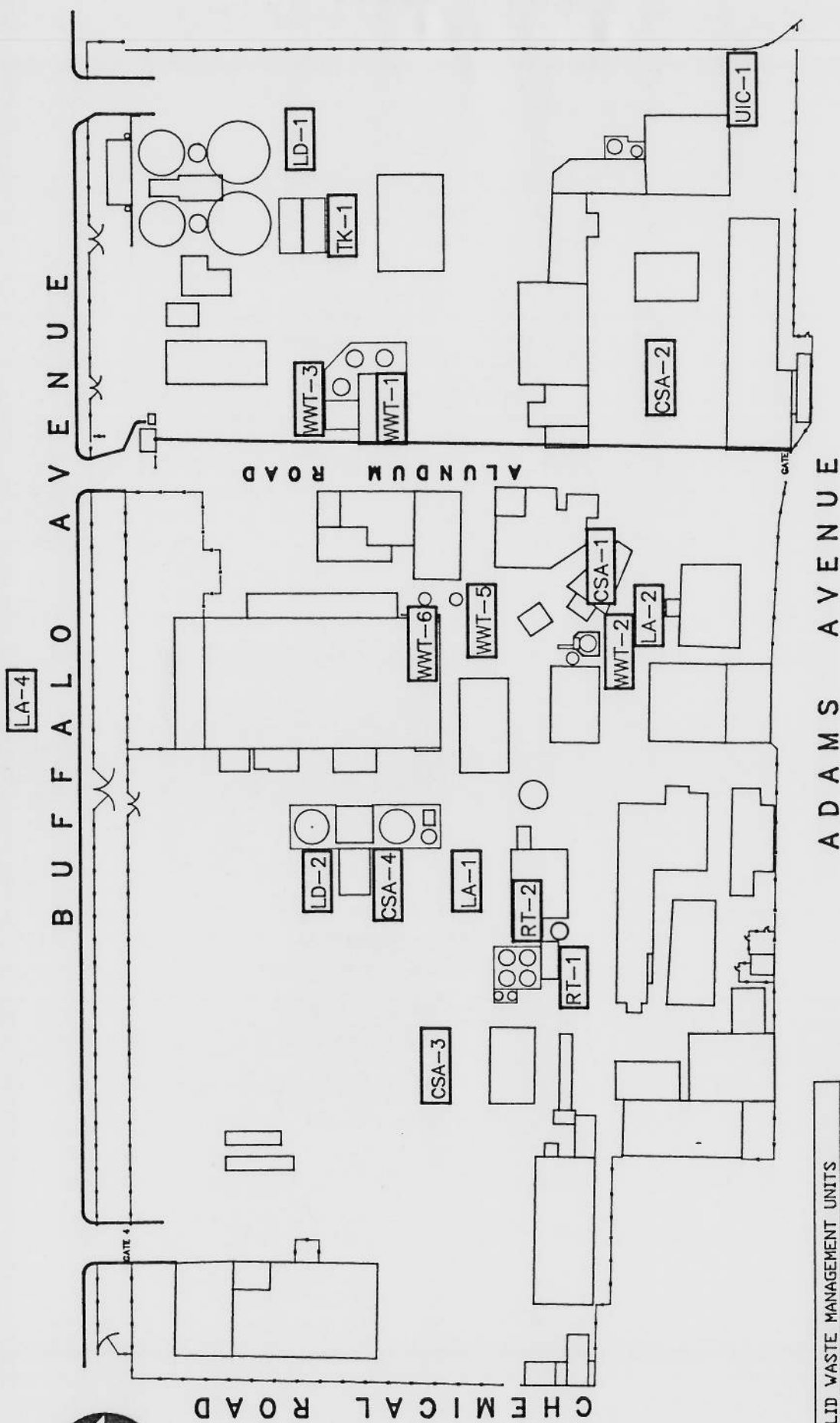
(a) Current Process
 (b) Product/Process Discontinued
 (c) Assumed

FIGURE 6 --Water-bearing characteristics of unconsolidated deposits and bedrock in the Hyde Park area.
(Maslia and Johnston, 1982)

Water-bearing unit	Thickness (feet)	Lithologic description	Water-bearing characteristics	Hydraulic properties
Undifferentiated lake deposits	0-20	Laminated clay and silt and thin beds of fine sand.	Clay and silts have low permeability and yield little water.	Hydraulic conductivity range: 0.0014 to 0.27 ft/d ¹ .
Glacial till ("Hardpan")	0-10	Mixture of boulders and pebbles in a matrix of sand, silt, and clay.	Water occurs principally in thin sand lenses in till and a "washed zone" at the top of the bedrock.	
Lockport Dolomite	90-130	Dark-gray to grayish-brown massive to thin bedded dolomite, locally containing algal reefs, small masses of gypsum, limestone, and shaly beds at base.	Only important aquifer in Niagara Falls area. Ground water occurs principally in water-bearing zones parallel to bedding which are much more permeable than the surrounding rock. The upper 10 to 15 feet is the most permeable interval and contains vertical joints and small cavities formed by solution of gypsum. Well yields 10 to 100 gal/min mostly.	Average transmissivity is 300 ft ² /d; ² / probable hydraulic conductivity range: 10 ft/d (upper 15 feet) to 1 ft/d (lower part).
Rochester Shale	60	Dark-gray calcareous shale.	Very low permeability shale. Yields no significant water to wells.	Unknown. Hydraulic conductivity assumed to be 2 to 3 orders of magnitude less than that of Lockport Dolomite.

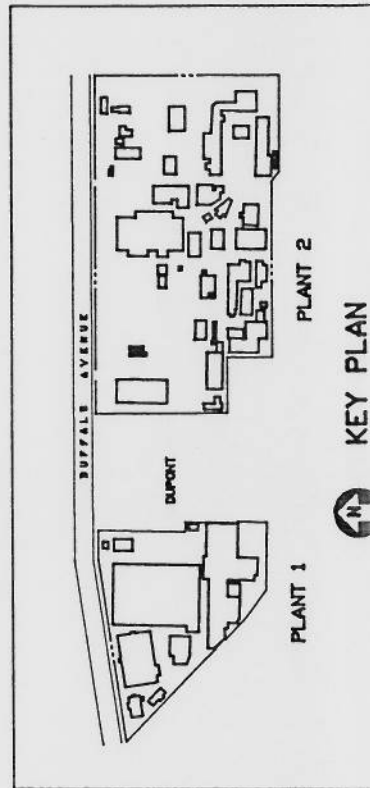
¹/Based on well-recovery test data from Conestoga-Rovers Associates.

²/Based on steady-state analysis of 18,000-foot section of dewatered conduit penetrating the Lockport Dolomite; average gradient (0.017 ft/ft) and average pumping rate (1,400,000 gal/d) (Johnston, 1964).



GILL CREEK

SOLID WASTE MANAGEMENT UNITS		
CODE	TYPE	STATUS
CSA-1	CONTAINER STORAGE	ACTIVE
CSA-2	CONTAINER STORAGE	INACTIVE
CSA-3	CONTAINER STORAGE	INACTIVE
CSA-4	CONTAINER STORAGE	INACTIVE
LD-1	WASTE PILE	ACTIVE
LD-2	SURFACE IMPOUNDMENT	INACTIVE
WWT-1	TANK TREATMENT	ACTIVE
WWT-2	TANK TREATMENT	ACTIVE
WWT-3	TANK TREATMENT	ACTIVE
WWT-5	TANK TREATMENT	INACTIVE
WWT-6	TANK TREATMENT	INACTIVE
TK-1	TREATMENT TANK	ACTIVE
LA-1	ROAD REPAIR	INACTIVE
LA-2	ROAD REPAIR	INACTIVE
LA-4	PARKING LOTS	INACTIVE
UIC-1	INJECTION WELL	INACTIVE
RT-1	THERMAL TREATMENT	ACTIVE
RT-2	THERMAL TREATMENT	ACTIVE



PLANT 2

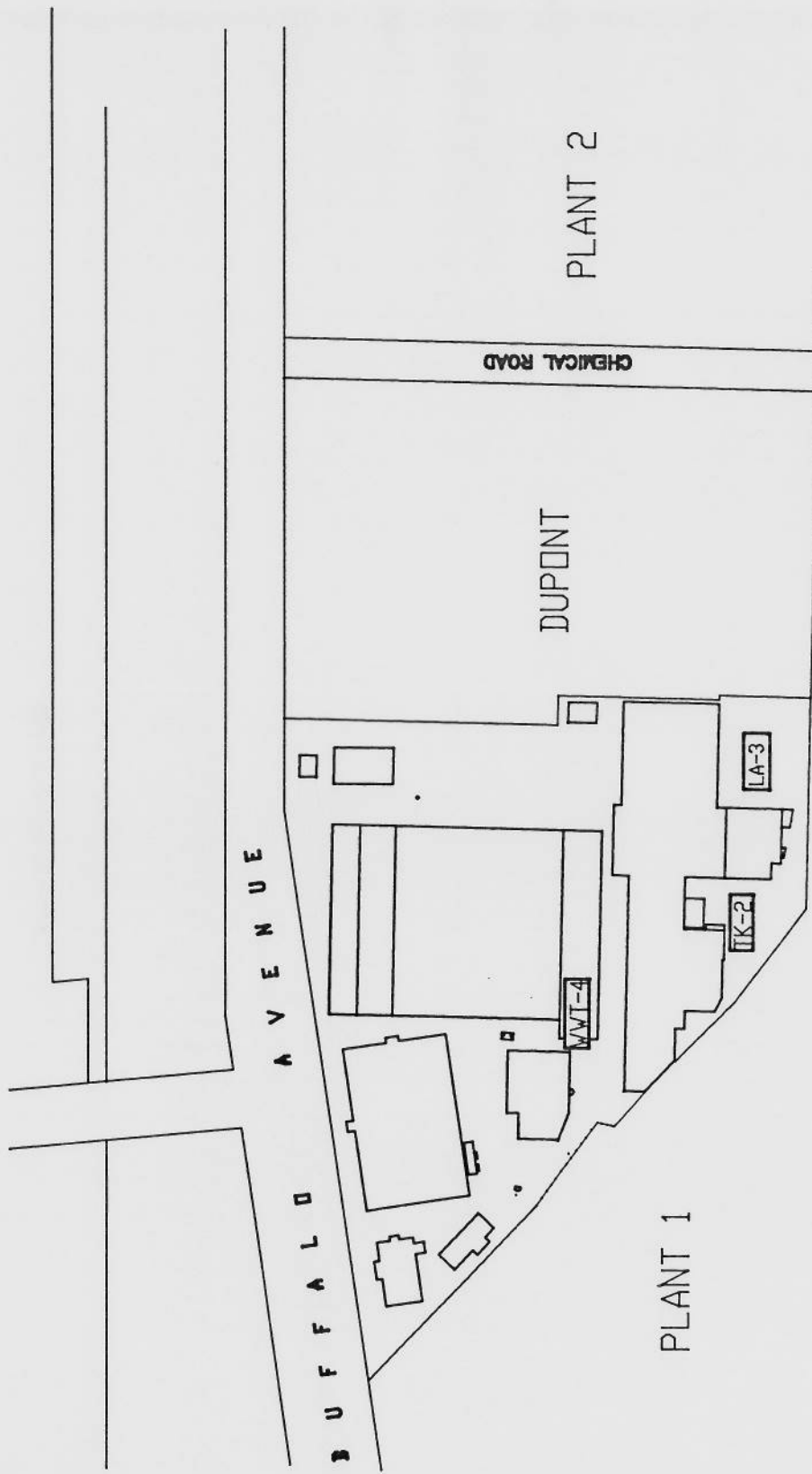
ACTIVE & INACTIVE SOLID
WASTE MANAGEMENT UNITS

DWG. NO. PLATE #71

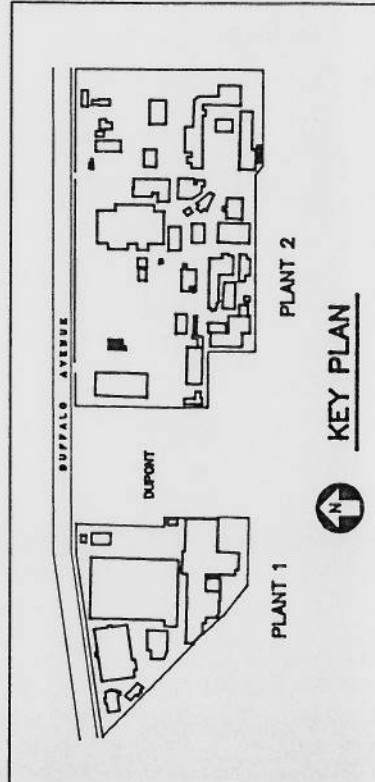
PLANT 2

KEY PLAN

PLANT 1



SOLID WASTE TREATMENT		
CODE	TYPE	STATUS
WWT-4	TANK TREATMENT	INACTIVE
TK-2	TANK TREATMENT	INACTIVE
LA-3	ROAD REPAIR	INACTIVE



PLANT 1	
ACTIVE & INACTIVE SOLID	
WASTE MANAGEMENT UNITS	

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the transfer station/CSA identified on the preceding page.

1. If containers or drums are/were used, please specify their condition. Describe materials of construction if known.

Excellent	Good	Fair	NK	Comment
X				Dot 17C and 17H Steel Drums

2. What was/is the average residence time of chemicals in the transfer station/CSA?

NK	Chemical	Residence Time (units)/COMMENT
	D002	<90 days
	D009	<90 days

3. Were/are reactive, ignitable, or incompatible wastes placed in the unit?

Yes	No	NK	Description/COMMENT
	X		

If so, are/were the wastes stored, treated, rendered or mixed so that it no longer poses/posed a hazard?

Yes	No	NK	If yes, mitigative treatment?	Comment

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CLAS)3-1.2 (Cont'd)

4. Was/is the unit surrounded by a containment system? What was/is the capacity of the containment system?

Yes No HK Capacity(units)/COMMENT

X 2371 Gallons

Indicate whether the unit is/was located indoors or outdoors. If located outdoors, indicate if the area is/was protected from the weather (e.g., rain, snow).

INDOORS OUTDOORS HK COMMENT

X

PROTECTED UNPROTECTED HK COMMENT

Please describe any precautionary measures that are/were taken (e.g., roofed area, tarp graded).

PRECAUTIONARY MEASURES

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the transfer station/CSA described in the preceding pages.

Evidence of Release

None Indirect* Positive Proof from Direct Observation Positive Proof from Laboratory Analyses

Description/Document

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DECHazardous Waste 1
or Waste Description 2

Estimated Quantity or
Volume Released (Units)

Date(s) of
Release

Nature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.3 (Cont'd)

For the unit described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and/or the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously
Implemented

Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently

Implemented

Yes	No	NK	Starting Dates	Description/COMMENT

Planned to

be Implemented

Yes	No	NK	Starting Date	Description/COMMENT

3-1 TRANSFER STATISTICS & CONTAINER STORAGE AREAS (CSCS)

NOTE: COMPLETE 3-1.1 THROUGH 3-1.3 FOR EACH INDIVIDUAL TRANSFER STATION & CONTAINER STORAGE AREA (CSA) WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

3-1.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/were stored in each transfer station/CSA on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from - to] for units presently inactive. Include the hazardous waste code from 6NYCRR 371.4 for each listed hazardous waste handled at the unit.² If you handle/handled hazardous wastes which are not cited in 371.4, enter the code(s) from 6NYCRR 371.5 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes. For any wastes which do not have a corresponding DEC hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an ANNUAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit described.

SDMU TYPE/ UNIT IDENTIFIER ¹	DIMENSIONS STORAGE AREA	OPERATIONAL STATUS	EPA PROCESS CODE	DEC HAZARDOUS WASTE ID., OR WASTE DESCRIPTION ²	ESTIMATED ANNUAL QUANTITY (CAPACITY UNITS)	ASSOCIATED RELEASE?
Container Storage		ACTIVE _____				
CSA-2	50' x 60'	YEAR START: _____	S01	D002	10 Tons	
	VOLUME _____	INACTIVE X _____		D009	70 Tons	
Est. 6000 Gal	DRUMS _____	INCLUSIVE YEARS: 1986 - 87		D001	5 Tons	
(55 Gal Each)	NUMBER _____			B002	2 Tons	
	DRUMS _____					
	110					

¹ UNIT ID as coded on your facility site map.

² EPA Process Codes, DEC Hazardous Waste Codes, criteria constituting hazardous waste are identified by asterisk (*)

1 UNIT ID as coded on your facility site map.

2 EPA Process codes, DEC Hazardous Waste Codes, and RCRA codes are defined in Part I Definitions of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the transfer station/CSA identified on the preceding page.

1. If containers or drums are/were used, please specify their condition. Describe materials of construction if known.

Excellent Good Fair NK Comment

X

2. What was/is the average residence time of chemicals in the transfer station/CSA?

Chemical Residence Time (units)/COMMENT

D002

D009

D001

B002

<90 Days

3. Were/are reactive, ignitable, or incompatible wastes placed in the unit?

Description/COMMENT

D001 Ignitable

If so, are/were the wastes stored, treated, rendered or mixed so that it no longer poses/posed a hazard?

Yes No If yes, mitigative treatment? Comment

X Treated/Recycled

Off- Site

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)3-1.2 (cont'd)

4. Was/is the unit surrounded by a containment system? What was/is the capacity of the containment system?

Capacity(units)/COMMENT

Yes No HK

X

Indicate whether the unit is/was located indoors or outdoors. If located outdoors, indicate if the area is/was protected from the weather [e.g., rain, snow].

COMMENT

INDOORS OUTDOORS HK

X

COMMENT

PROTECTED UNPROTECTED HK

X

Please describe any precautionary measures that are/were taken [e.g., roofed area, tarp graded].

PRECAUTIONARY MEASURESDaily Inspection

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the transfer station/CSA described in the preceding pages.

Evidence of Release

None Indirect* Positive Proof from Direct Observation Positive Proof from Laboratory Analyses

Description/Comment

X

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DECHazardous Waste 1 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

NA

- 1 UNIT ID as coded on your facility site map.
- 2 EPA Process Codes, DECHazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)3-1.3 (Cont'd)

For the unit described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and/or the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

<u>GW Monitoring</u> <u>Data Attached</u>	<u>SW Analytical</u> <u>Data Attached</u>	<u>Soil Analytical</u> <u>Data Attached</u>	<u>Air Monitoring</u> <u>Data Attached</u>
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously
Implemented

<u>Yes</u>	<u>No</u>	<u>NK</u>	<u>Inclusive Dates</u>	<u>Description/COMMENT</u>

CurrentlyImplemented

<u>Yes</u>	<u>No</u>	<u>NK</u>	<u>Starting Dates</u>	<u>Description/COMMENT</u>

Planned tobe Implemented

<u>Yes</u>	<u>No</u>	<u>NK</u>	<u>Starting Date</u>	<u>Description/COMMENT</u>

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (C/S)

NOTE: COMPLETE 3-1.1 THROUGH 3-1.3 FOR EACH INDIVIDUAL TRANSFER STATION & CONTAINER STOWAGE AREA (CSA) WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

3-1.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/were stored in each transfer station/CSA on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from - to] for units presently inactive. Include the hazardous waste code from 6NYCRR 371.4 for each listed hazardous waste handled at the unit.² If you handle/handled hazardous wastes which are not cited in 371.4, enter the code(s) from 6NYCRR 371.5 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes. For any wastes which do not have a corresponding DEC hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an Annual basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit described.

[illegible]

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DECONTAMINATING WASTE CODES, are defined in PART I DEFINITORS of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the transfer station/CSA identified on the preceding page.

1. If containers or drums are/were used, please specify their condition. Describe materials of construction if known.

Excellent Good Fair NK Comment

 X

Dot 17C and 17H

2. What was/is the average residence time of chemicals in the transfer station/CSA?

NK Chemical Residence Time (units)/COMMENT

 All 90 Days

3. Were/are reactive, ignitable, or incompatible wastes placed in the unit?

Yes No NK Description/COMMENT

X D001 Ignitable

If so, are/were the wastes stored, treated, rendered or mixed so that it no longer poses/posed a hazard?

Yes No NK If yes, mitigative treatment? Comment

X Treated/ Recycled
Off-Site

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 (Cont'd)

4. Was/is the unit surrounded by a containment system? What was/is the capacity of the containment system?

Yes	No	HK	Capacity(units)/COMMENT
X			5000 Gallons

Indicate whether the unit is/was located indoors or outdoors. If located outdoors, indicate if the area is/was protected from the weather (e.g., rain, snow).

INDOORS	OUTDOORS	HK	COMMENT
	X		

PROTECTED	UNPROTECTED	HK	COMMENT
X			

Please describe any precautionary measures that are/were taken (e.g., roofed area, tarp graded).

PRECAUTIONARY MEASURES

Roofed With Collection Sump; Daily Inspections; Security Fence With Locked Gate.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the transfer station/CSA described in the preceding pages.

Evidence of Release

<u>None</u>	<u>Positive Proof from</u>	
	<u>Indirect*</u>	<u>Direct Observation</u>
X		

Description/Comment

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of ReleaseDEC Hazardous Waste 1
or Waste Description 2Estimated Quantity or
Volume Released (Units)Date(s) of
ReleaseNature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.3 (Cont'd)

For the unit described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and/or the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously
Implemented

Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently

Implemented	Yes	No	NK	Starting Dates	Description/COMMENT

Planned to

be Implemented	Yes	No	NK	Starting Date	Description/COMMENT

3-1 TRANSFER STATISTICS & COUNTER STORAGE AREAS (CHAS)

NOTE: COMPLETE 3-1.1 THROUGH 3-1.3 FOR EACH INDIVIDUAL TRANSFER STATION & CONTAINER STORAGE AREA (CSA) INMU WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

3-1.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/were stored in each transfer station/CSA on your site. Identify the unit according to your map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, including identifying the first year of operation for active units or the inclusive dates of operation [from - to] for units presently inactive. Include the hazardous waste code from 6NCRR 371.4 for each listed hazardous waste handled at the unit.² If you handle/handled hazardous wastes which are not cited in 371.4, enter the code(s) from 6NCRR 371.5 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes. For any wastes which do not have a corresponding DEC hazardous waste number, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under 371 and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an ANNUAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit described.

SWMU TYPE/ UNIT IDENTIFIER ¹	DIMENSIONAL STORAGE AREA	OPERATIONAL STATUS	EPA PROCESS ² CODE	DEC HAZARDOUS WASTE ID, OR WASTE DESCRIPTION ²	ESTIMATED ANNUAL QUANTITY(SPECIFY UNITS)	ASSOCIATED RELEASE ²
Container Storage CSA-4	30x30'	ACTIVE _____ YEAR START: _____	S01	D002	NK	
	VOLUME _____	INACTIVE X		D009	NK	
	DRUMS _____	INCLUSIVE YEARS: 1978 - 1980*		K071	NK	
	5500 gal (55 gal each)	*Pre-RCRA		K106	NK	
	NUMBER _____					
	DRUMS _____					
	100					

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes,
including wastes regulated criteria constituents are defined

1 UNIT ID as coded on your facility site map.

² EPA Process Codes, DECLIZARDIOUS Waste Codes, criteria constituting wastes regulated in part 1 DEFINITIONS of this questionnaire.

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the transfer station/CSA identified on the preceding page.

1. If containers or drums are/were used, please specify their condition. Describe materials of construction if known.

Excellent	Good	Fair	NK	Comment
	X			Steel Drums

2. What was/is the average residence time of chemicals in the transfer station/CSA?

NK	Chemical	Residence Time (units)/COMMENT
	All	< 90 Days

3. Were/are reactive, ignitable, or incompatible wastes placed in the unit?

Yes	No	NK	Description/COMMENT
	X		

If so, are/were the wastes stored, treated, rendered or mixed so that it no longer poses/posed a hazard?

Yes	No	NK	If yes, mitigative treatment?	Comment

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSAs)

3-1.2 (Cont'd)

4. Was/is the unit surrounded by a containment system? What was/is the capacity of the containment system?

Yes	No	HK	Capacity(units)/COMMENT
X			2200 Gallons

Indicate whether the unit is/was located indoors or outdoors. If located outdoors, indicate if the area is/was protected from the weather (e.g., rain, snow).

INDOORS	OUTDOORS	HK	COMMENT
	X		

PROTECTED	UNPROTECTED	HK	COMMENT
	X		

Please describe any precautionary measures that are/were taken (e.g., roofed area, tarp graded).

PRECAUTIONARY MEASURES

Fenced

3-1 TRANSFER STATIONS & CONTAINER STORAGE AREAS (CSES)

3-1.3 (Cont'd)

For the unit described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and/or the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously
Implemented

Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently

Implemented

Yes	No	NK	Starting Dates	Description/COMMENT

Planned to

be Implemented

Yes	No	NK	Starting Date	Description/COMMENT

NOTE: COMPLETE 3-2.1 THROUGH 3-2.3 FOR EACH INDIVIDUAL, LAND DISCLOSURE, SURETY WHICH EITHER IS CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED AT YOUR SITE.

3-2.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/have been stored, treated, or disposed of in the identified land disposal unit. Identify the unit according to your map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from - to] for units presently inactive. Include the hazardous waste code from 6NCYRR 371.4 for each listed hazardous waste handled at each unit. If you handle/handled hazardous wastes which are not cited in 371.4, enter the code(s) from 6NCYRR 371.3 that describe(s) the characteristics and/or the toxic constituents of those hazardous wastes.² For any wastes which do not have a corresponding VEC hazardous waste number, please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under RCRA and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an Annual basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit described.

[illegible]

1 UNIT ID as coded on your facility site map.

² EPA Process Codes, Dec Hazardous Waste Codes and criteria constituting wastes in Part 1 DEFINITIONS of this questionnaire.

3-2 LAND DISPOSAL

3-2.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the land disposal unit identified on the preceding page.

1. Were/are measures taken to divert run-on from the unit?

Yes No NK COMMENT

X

Description of Measures Taken:

Curbed And Elevated

2. Are/were bulk or non-containerized liquid wastes or wastes containing free liquid placed in the unit?

Yes No NK COMMENT

X

Collection sump for process recycle.

3. Were/are liners used? If yes, specify liner type.

Yes No NK Liner type (e.g., clay or other liner resistant to organic compounds):/COMMENT

X

Concrete (No Organic Wastes)

4. Did/does the unit have a functioning leachate collection system? Please describe.

Yes No NK Description/COMMENT

X

5. Did/does the unit have containment and drainage control systems (e.g., protective cover)? Please describe.

Yes No NK Description/COMMENT

X

Sloped To Sump; Liquid Recovered As Process Raw Material

6. Are/were liquid wastes treated chemically or physically so that free liquids are/were no longer present? Specify treatment method.

Yes No NK COMMENT

X

Not A Liquid Waste System

3-2 LAND DISPOSAL

3-2.2 Cont'd

7. Were/are reactive, ignitable, or incompatible wastes placed in the unit? If so, was/is the waste treated, rendered or mixed so that it no longer posed/poses a hazard? Please specify.

Yes	No	NK	If yes, mitigative treatment?	Unknown Treatment	Description/COMMENT
	X				

8. Did/does the unit contain waste that generates methane (e.g., biodegradable organics) or volatile constituents?

Yes	No	NK	If Yes, Constituents	COMMENT
	X			

- If yes, were/are emission controls in place that would prevent gas migration from the unit? Describe the controls.

Yes	No	NK	Description/COMMENT

9. If the unit is/was a surface impoundment, are/were procedures in place to maintain at least 2 feet (60 cm) of freeboard?

Yes	No	NA	NK	COMMENT
		X		

- If yes, were/are the procedures manual or automatic? Please describe.

Manual	Automatic	Procedure Description/COMMENT

3-2 LAND DISPOSAL

3-2.2 Cont'd

Was/is there any evidence of overtopping of the dike?

Yes	No	NK	COMMENT

10. Were/are groundwater monitoring programs in place to detect contamination due to seepage from this unit?

Seepage Observed?		Comment
Yes	No	
	X	

11. If not addressed above, please describe briefly any other engineered features designed to prevent releases (to groundwater, surface water, air and soil) from this unit.

Lined concrete unit, cubed and elevated. Waste is non volatile. Inspections completed quarterly since 1984 with no releases indicated.

12. Structural Integrity: If there are/were any indications that releases may have occurred due to the physical condition of the unit, briefly describe the nature of the problem.

No indications of release.

3-2 LAND DISCREET

3-2.3 EVIDENCE OF RELEASE/MEDIATION

Please provide the following information on any prior or current release of hazardous waste or constituents associated with the SWU described in the preceding pages.

Evidence of Release

Phone	Indirect*	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses	Comment
X				

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

[illegible]

- 1 UNIT ID as coded on your facility site map.
- 2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-2 LAND DISposal

3-2.3 (Cont'd)

For the SWM described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that covers prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes	No	NK	Start Date	Description/COMMENT

Planned to be Implemented Yes	No	NK	Start Date	Description/COMMENT

3-2 LAND DISPOSAL

3-2.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the land disposal unit identified on the preceding page.

1. Were/are measures taken to divert run-on from the unit?

Yes No NK COMMENT

X

Description of Measures Taken:

Diked

2. Are/were bulk or non-containerized liquid wastes or wastes containing free liquid placed in the unit?

Yes No NK COMMENT

X

3. Were/are liners used? If yes, specify liner type.

Yes No NK Liner type (e.g., clay or other liner resistant to organic compounds)/COMMENT

X

4. Did/does the unit have a functioning leachate collection system? Please describe.

Yes No NK Description/COMMENT

X

5. Did/does the unit have containment and drainage control systems (e.g., protective cover)? Please describe.

Yes No NK Description/COMMENT

X

6. Are/were liquid wastes treated chemically or physically so that free liquids are/were no longer present? Specify treatment method.

Yes No NK COMMENT

X

3-2 LARD DISposal

3-2.2 Cont'd

7. Were/are reactive, ignitable, or incompatible wastes placed in the unit? If so, was/is the waste treated, rendered or mixed so that it no longer posed/poses a hazard? Please specify.

Yes	No	NK	If yes, mitigative treatment?	Unknown Treatment	Description/COMMENT
	X				

8. Did/does the unit contain waste that generates methane (e.g., biodegradable organics) or volatile constituents?

Yes	No	NK	If Yes, Constituents	COMMENT
	X			

If yes, were/are emission controls in place that would prevent gas migration from the unit? Describe the controls.

Yes	No	NK	Description/COMMENT

9. If the unit is/was a surface impoundment, are/were procedures in place to maintain at least 2 feet (60 cm) of freeboard?

Yes	No	NA	NK	COMMENT
			X	

If yes, were/are the procedures manual or automatic? Please describe.

Manual	Automatic	Procedure Description/COMMENT

3-2 LAND DISCREPANCY

3-2.2 Cont'd

Was/is there any evidence of overtopping of the dike?

Yes	No	NK	COMMENT
	X		

10. Were/are groundwater monitoring programs in place to detect contamination due to seepage from this unit?

Seepage Observed?		Comment
Yes	No	
	X	

11. If not addressed above, please describe briefly any other engineered features designed to prevent releases (to groundwater, surface water, air and soil) from this unit.

12. Structural Integrity: If there are/were any indications that releases may have occurred due to the physical condition of the unit, briefly describe the nature of the problem.

1 UNIT ID as coded on your facility site map.

3-2 LAND DISCAL

3-2.3 (Cont'd)

For the SMD described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates

Description/COMMENT

Currently Implemented Yes	No	NK	Start Date

Description/COMMENT

Planned to be Implemented Yes	No	NK	Start Date

Description/COMMENT

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include NPDES No. or equivalent.

Yes	No	NK	NPDES No.	Prior Exceedances?		COMMENT
				Yes	No	
X				X		City of Niagara Falls Wastewater Discharge Permit No. 23

2. Briefly describe treatment/recycling processes. If unknown, indicate.

NK Description/COMMENT

Mercury Contaminated Wastewaters Are pH Adjusted And Treated With Sodium Sulfide To Precipitate Mercury For Removal By Filtration.

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

NK Effectiveness

+99.9% Mercury Removal Based Upon Before Treatment And After Filter Mercury Analyses

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are/were there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes No NK NA Monitoring Device/Procedure Description/COMMENT

Tanks Are Vented To Sodium Hypochlorite Scrubbers (EP 16 and 17)

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.2 (Cont'd)

Similarly, are/were there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

Yes	No	NK	NA	Control Device/Procedure Description/COMMENT
			X	

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING: UHITS

3-3.3 EVIDENCE OF RELEASE/REMEDICATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWMU described in the preceding pages.

Evidence of Release

None	Indirect*	Positive Proof from Direct Observation	Positive Proof from Laboratory Analysis
		X	

COMMENT

Reported RQ release of D009 waste water on March 15, 1988 in correspondence to NYSDEC dated March 24, 1988.

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste # or Waste Description ²

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

D009 est. 200 gal 3-12-88 Wastewater holding tank overflowed into containment dike which apparently leaked to groundwater.

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 (Ont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

<u>GW Monitoring</u> Data Attached	<u>SW Analytical</u> Data Attached	<u>Soil Analytical</u> Data Attached	<u>Air Monitoring</u> Data Attached
<u>X</u>			

Refer to attached
better to NYSDEC.

For the prior/current release documented above please describe relevant remediation implemented or planned.

<u>Previously</u> <u>Implemented</u>	<u>Inclusive Dates</u>	<u>Description/COMMENT</u>
<u>Yes</u> <u>No</u>	<u>NK</u> <u>3-12 - 3-19-88</u>	<u>Pumped groundwater to containment tank</u>
<u>X</u> <u>—</u>	<u>(est)</u>	

<u>Currently</u> <u>Implemented</u>	<u>Start Date</u>	<u>Description/COMMENT</u>
<u>Yes</u> <u>No</u>	<u>NK</u> <u>—</u>	
<u>—</u> <u>X</u>		

<u>Planned to</u> <u>Implementation</u>	<u>Start Date</u>	<u>Description/COMMENT</u>
<u>Yes</u> <u>No</u>	<u>NK</u> <u>—</u>	
<u>—</u> <u>X</u>		



NIAGARA FALLS PLANT, P.O. BOX 748, NIAGARA FALLS, NY 14302

March 24, 1988

Re-issued April 22, 1988 *

Mr. John Spagnoli
NYSDEC-Region 9
600 Delaware Avenue
Buffalo, NY 14202

Subject: Olin Corporation
Niagara Falls Plant
Wastewater Spill on March 15, 1988

Dear Mr. Spagnoli:

A mercury contaminated wastewater spill occurred at Olin-Niagara Falls on March 15, 1988. After reporting to and consultation with NYSDEC-Region 9 on March 16, this spill event was additionally reported to the National Response Center and Niagara County Health Department as a CERCLA reportable quantity release to the environment. Unlisted hazardous wastes which exhibit EP toxicity for mercury above 0.2 ppm have a reportable quantity of one pound.

The wastewater spill event on March 15 was caused by an apparent containment dike leak at our mercury contaminated wastewater pretreatment facility. Wastewater overflowed from the Secondary Treatment holding tank into the concrete containment dike at approximately 4 PM on this date. Shortly after this occurred, an increased flow was noted in an open, four feet deep excavation adjacent to the dike. A portable sump pump was in operation at the time of the overflow to pump potentially contaminated groundwater into the pretreatment system prior to discharge to the City of Niagara Falls Wastewater Treatment Plant. Based upon an observed pumping rate of approximately 2 gpm, it is estimated that less than 250 gallons of wastewater escaped through the dike during this incident. It is believed that the continued pumping at this excavation limited any potential migration of mercury as a result of the dike leak.

In order to minimize any exfiltration through the dike, all wastewaters were completely pumped out from the dike by approximately 6:30 PM. The Secondary Treatment diked area was completely cleaned of all sediments on March 17 and inspected for cracks and deterioration on March 18. Temporary caulking repairs at observed cracks were completed on March 23. A project has been initiated to examine alternative materials of construction to upgrade the condition of this containment dike.

Should you have any questions or desire any additional information concerning this incident, please do not hesitate to contact us.

Very truly yours,

OLIN CORPORATION

M. L. Norsworthy
M. L. Norsworthy
Plant Manager

AFK/MLN/dmh

cc: Mr. Robert Speed - NYSDEC-Region 9
Mr. Paul Dicky - NCHD

cc: Mr. Martin Doster 4/22/88

* This letter was originally issued on March 24, 1988 but may not have been distributed to all parties due to a clerical oversight.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include TYPES No. or equivalent.

		Prior Exceedances?		COMMENT
Yes	No	Yes	No	

<u>X</u>				<u>City of Niagara Falls Waste Water Discharge Permit No. 23</u>

2. Briefly describe treatment/recycling processes. If unknown, indicate.

NK	Description/COMMENT
----	---------------------

	<u>Sodium hypochlorite is decomposed by thermal catalytic reaction in a tank prior to POTW discharge.</u>

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

NK	Effectiveness
----	---------------

	<u>100% effective for the destruction of available chlorine</u>

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are/were there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes	No	NK	NA	Monitoring Device/Procedure Description/COMMENT
-----	----	----	----	---

			<u>X</u>	

UNIT ID: WWT-2 1

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3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.2 (Cont'd)

Similarly, are/were there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

Yes	No	NK	NA	Control Device/Procedure Description/Comments
			<u>X</u>	

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMDU described in the preceding pages.

Evidence of Release

None	Indirect*	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
	X		

Amount

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste 1 or Waste Description 2

NA

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 (Cont'd)

For the SMMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
<u>NA</u>	<u> </u>	<u> </u>	<u> </u>

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented	Inclusive Dates	Description/COMMENT
Yes	No	
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

Currently Implemented	Start Date	Description/COMMENT
Yes	No	
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

Planned to Implementation	Start Date	Description/COMMENT
Yes	No	
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include NPDES No. or equivalent.

Yes	No	NK	NPDES NO.	Prior Exceedances?		COMMENT
				Yes	No	
X						Effluent pH monitoring as per City of Niagara Falls Sewer Use Ordinance and Wastewater Discharge Permit No. 23.

2. Briefly describe treatment/recycling processes. If unknown, indicate.

NK	Description/COMMENT
	Wastewaters are pH adjusted in a two stage treatment with sulfuric acid and / or caustic soda prior to POTW discharge.

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

NK	Effectiveness
	+ 99% control to pH > 5.0 and pH < 12.0.

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are/were there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes	No	NK	NA	Monitoring Device/Procedure Description/COMMENT
			X	

UNIT ID: WWT-3 1

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3-3 WASTEWATER TREATMENT AND WASTE RECYCLING: UNITS

3-3.2 (Cont'd)

Similar, are/were there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

<u>Yes</u>	<u>No</u>	<u>NK</u>	<u>NA</u>	<u>Control Device/Procedure Description/COMMENT</u>
<u> </u>	<u> </u>	<u> </u>	<u>X</u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

1 UNIT ID as coded on your facility map.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMMU described in the preceding pages.

Evidence of Release

None	Indirect	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
X			

COMMENT

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste 1 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

<u>GW Monitoring</u> <u>Data Attached</u>	<u>SW Analytical</u> <u>Data Attached</u>	<u>Soil Analytical</u> <u>Data Attached</u>	<u>Air Monitoring</u> <u>Data Attached</u>
<u>NA</u>			

For the prior/current release documented above please describe relevant remediation implemented or planned.

<u>Previously</u> <u>Implemented</u>	<u>NK</u>	<u>Inclusive Dates</u>	<u>Description/COMMENT</u>
<u>Yes</u>	<u>No</u>		

<u>Currently</u> <u>Implemented</u>	<u>NK</u>	<u>Start Date</u>	<u>Description/COMMENT</u>
<u>Yes</u>	<u>No</u>		

<u>Planned to</u> <u>Implementation</u>	<u>NK</u>	<u>Start Date</u>	<u>Description/COMMENT</u>
<u>Yes</u>	<u>No</u>		

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include table No. or equivalent.

Yes	No	NK	RULES No.	Prior Exceedances?		COMMENT
				Yes	No	
X						Continuous monitoring for effluent pH.
						Available chlorine analyses completed
						for effluent grab sample 18 times per day.

2. Briefly describe treatment/recycling processes. If unknown, indicate.

NK	Description/COMMENT
	Wastewaters containing available chlorine were overchlorinated to chlorate and chlorides using vaporized chlorine and steam.

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

NK	Effectiveness
	+ 95% removal of available chlorine based upon before treatment and after treatment sample analyses.

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are/were there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes	No	NK	NA	Monitoring Device/Procedure Description/COMMENT
			X	Closed tanks vented to a venturi scrubbers followed by thermal catalytic destruction of available chlorine (EP 26).

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.2 (Cont'd)

Similar, are/were there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

Control Device/Procedure Description/Comment

<u>Yes</u>	<u>No</u>	<u>NK</u>	<u>NA</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>X</u>

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.3 (Cont'd)

For the SMMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes	No	NK	Start Date	Description/COMMENT

Planned to Implementation Yes	No	NK	Start Date	Description/COMMENT

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include TABLE No. or equivalent.

Yes		No		Prior Exceedances?		COMMENT
Yes	No	Yes	No	Yes	No	
X						Each batch tested for available chlorine and mercury concentration and discharged through pH control system.

2. Briefly describe treatment/recycling processes. If unknown, indicate.

NK Description/COMMENT

Sodium hypochlorite was decomposed by thermal catalytic reaction in a tank prior to POTW discharge.

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

NK Effectiveness

100% effective for the destruction of available chlorine.

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are/were there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes		No		Monitoring Device/Procedure Description/COMMENT	
Yes	No	Yes	No		
			X		

UNIT ID: WWT-5

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3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.2 (Cont'd)

Similar, are there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

Yes	No	NA	Control Device/Procedure Description/Comments

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMO described in the preceding pages.

Evidence of Release

None	Indirect	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
	X		

Comments

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of ReleaseDescribe Hazardous Waste 1 or Waste Description 2Estimated Quantity or Volume Released (Units)Date(s) of ReleaseNature of Release

1 UNIT ID as coded on your facility site map.

2 EHA Process Codes, Hc Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 (Qnt'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concern prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

<u>GW Monitoring</u> <u>Data Attached</u>	<u>SW Analytical</u> <u>Data Attached</u>	<u>Soil Analytical</u> <u>Data Attached</u>	<u>Air Monitoring</u> <u>Data Attached</u>
<u>NA</u>			

For the prior/current release documented above please describe relevant remediation implemented or planned.

<u>Previously</u> <u>Implemented</u> <u>Yes</u> <u>No</u>	<u>NK</u>	<u>Inclusive Dates</u>	<u>Description/COMMENT</u>

<u>Currently</u> <u>Implemented</u> <u>Yes</u> <u>No</u>	<u>NK</u>	<u>Start Date</u>	<u>Description/COMMENT</u>

<u>Planned to</u> <u>Implementation</u> <u>Yes</u> <u>No</u>	<u>NK</u>	<u>Start Date</u>	<u>Description/COMMENT</u>

SL110 20110301 145W 40V 11044V/RL 110V445W C-C
SL110 20110301 145W 40V 11044V/RL 110V445W C-C

3-3.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the wastewater treatment/recycling unit identified on the preceding page.

1. Were/are process and effluent quality monitoring programs in place? If yes, please specify and include DWS No. or equivalent.

Prior Exceedances?

[illegible]

Yes No

COMMITTEE

Each batch tested for available chlorine and mercury since 1977.

Prior testing is unknown.

- 2. Briefly describe treatment/recycling processes. If unknown, indicate.**

NK Description/Comments

Sodium hypochlorite was decomposed by thermal catalytic reaction in a tank prior to P0TW discharge.

Process unknown prior to 1972.

3. Briefly describe effectiveness of removal prior to sludge treatment and disposal or prior to effluent disposal. If unknown, indicate.

UK Effectiveness

100% effective for the destruction of available chlorine.

4. With certain wastewater treatment processes (e.g., aeration), toxic organic wastes may be volatilized. Are there devices/procedures in place for monitoring releases to the atmosphere? Please describe the monitoring devices/procedures.

Yes	No	NA	Monitoring Device/Procedure Description/Comments
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✕

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS

3-3.2 (cont'd)

Similar, are there devices/procedures in place for controlling volatilized organic waste releases to the atmosphere?
Please describe the control devices/procedures.

Control Device/Procedure Description/Comment

Yes	No	NK	NA
			X

3-3 WASTEWATER TREATMENT AND WASTE RECYCLING UNITS3-3.3 (Ont'd)

For the SMO described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists/existed as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concern prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	PK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes	No	PK	Start Date	Description/COMMENT

Planned to Implementation Yes	No	PK	Start Date	Description/COMMENT

3-4 STORAGE/TREATMENT TANKS

3-4.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the S340 identified on the preceding page.

1. Was/is the tank above or below ground? Please describe basic design parameters and materials of construction.

<u>Above Ground</u>	<u>Below Ground</u>	<u>PK</u>	<u>Description/COMMENT</u>
	X		Concrete Lined Tank

Is/was the unit covered or uncovered? If covered, briefly describe.

<u>Covered</u>	<u>Uncovered</u>	<u>PK</u>	<u>Description/COMMENT</u>
	X		

2. Describe inspection procedures for tanks and ancillary equipment (e.g., ultrasound, tank tightness tests, etc) and provide date of latest inspection.

Date of Latest Inspection	<u>PK</u>	<u>Inspection Procedures/COMMENT</u>
6/22/88		Semi Annual Detailed Inspection And Standing Water Leak Test

3. If the tank is/was uncovered, are/were procedures in place to maintain at least 2 feet (60 cm) freeboard? Describe the procedures.

Yes	No.	<u>PK</u>	<u>IA</u>	<u>Description/COMMENT</u>
X				Manual
				Automatic
				Daily Inspection

3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

4. If the tank is/was uncovered, are/were devices or procedures in place to monitor releases to the atmosphere? Describe.

Monitoring Description/COMMENT

Yes	No	NK	NA
			X

- If the tank is/was uncovered, are/were devices or procedures in place to control releases to the atmosphere? Describe.

Control Description/COMMENT

Yes	No	NK	NA
			X

5. Was/is the tank equipped with a secondary containment structure (e.g., dike or trench)? Please describe.

Description/COMMENT

Yes	No	NK	NA
	X		

6. Was/is the tank equipped with a drainage control system or a diversion structure (e.g., standby tank)? Describe.

Description/COMMENT

Yes	No	NK	NA
X			

Contained Diked Area For Tank Overflows

7. If hazardous waste was/is continuously fed into the tank, was/is the tank equipped with a means to stop inflow (e.g., waste cutoff or by-pass to a standby tank)? Please specify.

Description/COMMENT

Yes	No	NK	NA
	X		

Non-Continuous Feed

3-4 SUBSPACE/TREAFMPT TALKS

3-4.2 (Cont'd)

8. Was/is there evidence of external corrosion? If yes, briefly describe the extent of the problem. If no, describe corrosion protection provided (e.g., corrosion resistant coatings or linings, or cathodic protection systems).

Description/Comments

	<u>Yes</u>	<u>No</u>	<u>NK</u>
1. The company has a clear vision and mission statement.			
2. The company has a strong leadership team.			
3. The company has a solid financial foundation.			
4. The company has a competitive advantage.			
5. The company has a diverse customer base.			
6. The company has a strong brand identity.			
7. The company has a robust marketing strategy.			
8. The company has a talented workforce.			
9. The company has a positive corporate culture.			
10. The company has a strong track record of success.			

—
—
X

9. If the tank was/is used for waste treatment, briefly describe the treatment process.

Process	Description/Comment
1	...
2	...
3	...
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94	...
95	...
96	...
97	...
98	...
99	...
100	...

<u>NA (no treatment)</u>	<u>NK</u>
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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97	97
98	98
99	99

Sedimentation

10. If the tank was/is used for storage of hazardous waste, what was/is average residence time?

HA (no storage)	NK (Residence Time Unknown)
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
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86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Residence Time (units)

THE UNIVERSITY OF CHICAGO

30 days

3-4 STORAGE/TREATMENT TANKS

3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMU described in the preceding pages.

Evidence of Release

None	Indirect*	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
	X		

UNIT ID

Semi- annual standing leak test with water have indicated possible leakage.

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

Hazardous Waste # 2 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

NK

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes	No	NK	Start Date	Description/COMMENT

Planned to be Implemented Yes	No	NK	Start Date	Description/COMMENT

3-4 STRUCTURAL/INTAKE/TANKS3-4.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SHAW identified on the preceding page.

1. Was/is the tank above or below ground? Please describe basic design parameters and materials of construction.

<u>Above Ground</u>	<u>Below Ground</u>	<u>PK</u>	<u>Description/COMMENT</u>
	X		Concrete lined tank.

Is/was the unit covered or uncovered? If covered, briefly describe.

<u>Covered</u>	<u>Uncovered</u>	<u>PK</u>	<u>Description/COMMENT</u>
	X		

2. Describe inspection procedures for tanks and ancillary equipment (e.g., ultrasound, tank tightness tests, etc) and provide date of latest inspection.

<u>Date of Latest Inspection</u>	<u>PK</u>	<u>Inspection Procedures/COMMENT</u>
June 1987		Structural inspection and standing water leak test
		completed during RCAA closure during June 1987.

3. If the tank is/was uncovered, are/were procedures in place to maintain at least 2 feet (60 cm) freeboard? Describe the procedures.

<u>Yes</u>	<u>No.</u>	<u>PK</u>	<u>PK</u>	<u>Description/COMMENT</u>
X				Manual
				Automatic
				Daily Inspection

3-4 STORAGE/TREATMENT TANKS

3-4.2 (Cont'd)

4. If the tank is/was uncovered, are/were devices or procedures in place to monitor releases to the atmosphere? Describe.

Monitoring Description/COMMENT

NA

NK

No

Yes

X

If the tank is/was uncovered, are/were devices or procedures in place to control releases to the atmosphere? Describe.

Control Description/COMMENT

NA

NK

No

Yes

X

5. Was/is the tank equipped with a secondary containment structure (e.g., dike or trench)? Please describe.

Description/COMMENT

NK

No

Yes

X

6. Was/is the tank equipped with a drainage control system or a diversion structure (e.g., standby tank)? Describe.

Description/COMMENT

NK

No

Yes

X Overflow pipe to wastewater treatment facility

(unit ID: WWT-4).

7. If hazardous waste was/is continuously fed into the tank, was/is the tank equipped with a means to stop inflow (e.g., waste cutoff or by-pass to a standby tank)? Please specify.

Description/COMMENT

NA

NK

Yes

X Non-continuous feed.

3-4 SURFACE/PREFACE/PF TALKS

3-4.2 (Cont'd)

8. Was/is there evidence of external corrosion? If yes, briefly describe the extent of the problem. If no, describe corrosion protection provided (e.g., corrosion resistant coatings or linings, or cathodic protection systems).

Yes	No	UK	Description/COMMENT
-----	----	----	---------------------

✕

9. If the tank was/is used for waste treatment, briefly describe the treatment process.

	NK	Process Description/COMMENT ¹⁾
NA (no treatment)		

Calcium hypochlorite wastes were dissolved in water. Non-hazardous solids were allowed to settle and the liquid was decanted and treated at the plant waste water pretreatment facility.

10. If the tank was/is used for storage of hazardous waste, what was/is average residence time?

PK (Residence Time Unknown)	Residence Time (units)	$\alpha_{\text{eff}} \text{LT}$
NA (no storage)		

< 90 days

3-4 SURVIVAL/TREATMENT TABLES

3-4.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMO described in the preceding pages.

Evidence of Release

Name	Positive Proof from	
	Indirect*	Direct Observation
X		

Positive Proof from Laboratory Analyses

COMMIT

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

Hazardous Waste 1 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-4 STORAGE/TREATMENT TANKS

3-4.3 (cont'd)

For the SMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes <u> </u> No <u> </u>	NK <u> </u>	Inclusive Dates <u> </u>	Description/COMMENT <u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
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<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Currently Implemented Yes <u> </u> No <u> </u>	NK <u> </u>	Start Date <u> </u>	Description/COMMENT <u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
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<u> </u>	<u> </u>	<u> </u>	<u> </u>

Planned to be Implemented Yes <u> </u> No <u> </u>	NK <u> </u>	Start Date <u> </u>	Description/COMMENT <u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
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3-5 LAND APPLICATION AREAS

3-5.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMU identified on the preceding page.

11. Was/is the spread material/sludge monitored by a regulatory agency? If so, under what permit number and for what parameters? Any previous or current exceedances?

[illegible]

2. Are/were measures taken to divert run-on from the unit? Describe measures taken.

Yes	No	NK	Measures Description/COMMENT
X			Paved over

3. Are/were measures taken to collect run-off from the unit? Describe collection/handling procedures.

Yes	No	NK	Procedure/Description/Comment
	X		

UNIT ID: LA-1

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3-5 LAND APPLICATION AREAS

3-5.2 (Cont'd)

4. Are/were food chain crops grown? If so, provide information regarding crop and soil characteristics in the space provided.

Yes	No	NK	Crop and Soil Characteristics (e.g., soil pH)/COMMENTS
	X		

5. Are/were measures taken to continuously monitor soil pH and cadmium concentrations? Briefly describe monitoring procedures in the space provided.

Yes	No	NK	Monitoring Procedures/COMMENTS
		X	

3-5 LAND APPLICATION AREAS

3-5.3 (Cont'd)

For the SMDU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented			
Yes	No	NK	Inclusive Dates

Currently Implemented			
Yes	No	NK	Start Date

Planned to be Implemented			
Yes	No	NK	Start Date

3-5 LAND APPLICATION AREAS3-5.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMW identified on the preceding page.

1. Was/is the spread material/sludge monitored by a regulatory agency? If so, under what permit number and for what parameters? Any previous or current exceedances?

Exceedances?		Permit No.	Relevant Parameters/COMMENT
Yes	No		
<u>X</u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
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<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

2. Are/were measures taken to divert run-on from the unit? Describe measures taken.

Yes	No	NK	Measures Description/COMMENT
<u>X</u>	<u> </u>	<u> </u>	<u>Paved Over</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

3. Are/were measures taken to collect run-off from the unit? Describe collection/handling procedures.

Yes	No	NK	Procedure/Description/COMMENT
<u> </u>	<u>X</u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

3-5 LAND APPLICATION AREAS

3-5.2 (Cont'd)

4. Are/were food chain crops grown? If so, provide information regarding crop and soil characteristics in the space provided.

Yes	No	NK	Crop and Soil Characteristics (e.g., soil pH)/COMMENT
	X		

5. Are/were measures taken to continuously monitor soil pH and cadmium concentrations? Briefly describe monitoring procedures in the space provided.

Yes	No	NA	NK	Monitoring Procedures/COMMENT
		X		

3-5 LAND APPLICATION AREAS

3-5.3 (Cont'd)

For the SMD described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented	IK	Inclusive Dates	Description/COMMENT
Yes	No		

Currently Implemented	IK	Start Date	Description/COMMENT
Yes	No		

Planned to be Implemented	NK	Start Date	Description/COMMENT
Yes	No		

3-5 LAND APPLICATION AREAS

3-5.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMD identified on the preceding page.

1. Was/is the spread material/sludge monitored by a regulatory agency? If so, under what permit number and for what parameters? Any previous or current exceedances?

Exceedances?		Permit No.	Relevant Parameters/COMMENT
Yes	No		
☒	☐		
☐	☐		
☐	☐		
☐	☐		
☐	☐		
☐	☐		

2. Are/were measures taken to divert run-off from the unit? Describe measures taken.

Measures Description/COMMENT	
Yes	NK
☒	☒
☐	☐
☐	☐
☐	☐
☐	☐

3. Are/were measures taken to collect run-off from the unit? Describe collection/handling procedures.

Procedure/Description/COMMENT	
Yes	NK
☒	☒
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

3-5 LAND APPLICATION AREAS

3-5.2 (Cont'd)

4. Are/were food chain crops grown? If so, provide information regarding crop and soil characteristics in the space provided.

Yes	No	NK	Crop and Soil Characteristics (e.g., soil pH)/COMMENT
	X		

5. Are/were measures taken to continuously monitor soil pH and cadmium concentrations? Briefly describe monitoring procedures in the space provided.

Yes	No	NA	NK	Monitoring Procedures/COMMENT
		X		

3-5 LAND APPLICATION AREAS

3-5.3 EVIDENCE OF RELEASE/REMEDIATION

please provide the following information on any prior or current release of hazardous waste constituents associated with the SMU described in the preceding pages.

Evidence of Release

None	Indirect	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
1	2	3	4

 $(\chi)_{\text{MPL-711}}$

e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste 1
or Waste Description 2

**Estimated Quantity or
Volume Released (Units)**

Date(s) of Release

Nature of Release:

N/A

1. UNIT ID as coded on your facility site map.
2. EPA Process Codes, **h**azardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-5 LAND APPLICATION AREAS

3-5.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented	IRK	Inclusive Dates	Description/COMMENT
Yes	No		

Currently Implemented	IRK	Start Date	Description/COMMENT
Yes	No		

Planned to be Implemented	IRK	Start Date	Description/COMMENT
Yes	No		

3-5 LAND APPLICATION AREAS

3-5.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMDU identified on the preceding page.

1. Was/is the spread material/sludge monitored by a regulatory agency? If so, under what permit number and for what parameters? Any previous or current exceedances?

Yes	No	Permit No.	Exceedances?		Relevant Parameters/COMMENT
			Yes	No	
☒	☐				
☐	☐				
☐	☐				
☐	☐				
☐	☐				
☐	☐				

2. Are/were measures taken to divert run-on from the unit? Describe measures taken.

Yes	No	NK	Measures Description/COMMENT
☐	☒	☐	
☐	☐	☐	
☐	☐	☐	

3. Are/were measures taken to collect run-off from the unit? Describe collection/handling procedures.

Yes	No	NK	Procedure/Description/COMMENT
☐	☒	☐	
☐	☐	☐	
☐	☐	☐	
☐	☐	☐	
☐	☐	☐	

3-5 LAND APPLICATION ALFAS

3-5.2 (Cont'd)

4. Are/were food chain crops grown? If so, provide information regarding crop and soil characteristics in the space provided.

<u>Yes</u>	<u>No</u>	<u>NK</u>
------------	-----------	-----------

X

Crop and Soil Characteristics (e.g., soil pH)/(CROP/ET)

5. Are/were measures taken to continuously monitor soil pH and cadmium concentrations? Briefly describe monitoring procedures in the space provided.

Yes	No	NA	NK	Monitoring Procedures/(YMM)/NY

X

3-5 LAND APPLICATION AREAS

3-5.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SMD described in the preceding pages.

Evidence of Release

None	Indirect*	Positive Proof from Direct Observation	Positive Proof from Laboratory Analyses
	X		

COMMITTEE

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste 1 or Waste Description 2

NA

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-5 LAND APPLICATION AREAS

3-5.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please indicate below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
None			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented	Inclusive Dates	Description/COMMENT
Yes	No	

Currently Implemented	Start Date	Description/COMMENT
Yes	No	

Planned to be Implemented	Start Date	Description/COMMENT
Yes	No	

3-6 INJECTION WELLS

3-6.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the injection well shown identified on the preceding page.

1. Were/are monitoring programs in place to detect contamination due to seepage from the unit?

Yes	No	NK
—	X	—
—	X	—
—	X	—

In underground sources of drinking water passing through or near the well bore?

In the injection zone?

In the confining strata?

COMMENT

2. Were/are mechanical integrity tests performed as part of UIC permitting activities? If so, please indicate the frequency of the tests, the latest test date and briefly describe results. If frequency of testing or date of last test are unknown, indicate this in spaces provided.

Yes	No	NA	NK	Frequency	Last Test Date	Test Results/COMMENTS
—	X	—	—	—	—	—
—	—	—	—	Frequency Unknown	Most Recent Date Unknown	—
—	—	—	—	—	—	—

3. Were/are controls in place to prevent spills from waste handling operations at the well head? Please describe controls.

Yes	No	NA	NK	Control Description/COMMENT
X	—	—	—	Hard piped from process
—	—	—	—	—
—	—	—	—	—

4. Were/are annulus pressure and injection pressure monitored? If so, please indicate frequency of monitoring.

Yes	No	NA	NK	Frequency	Unknown Frequency	COMMENT
—	X	—	—	—	Gravity feed to well	—
—	—	—	—	—	—	—

1 UNIT ID as coded on your facility site map.

3-6 INJECTION WELLS

3-6.2 (Cont'd)

5. Was/is there any evidence of corrosion of well materials?

COMMENT

Yes No NK

X

6. Were/are measures taken to monitor any "losses" from the system (e.g., annular fluid escape, pump seal losses, evaporation from surface storage tanks)? Please describe how the system is/was monitored and any incidents where significant losses occurred.

Monitoring Description/COMMENT

Yes No NK

X

Incident Description (Date, Volume, etc.)

7. Were/are compatibility tests performed in waste streams to determine if a reduction of injection zone permeability will occur? If so, describe parameters that are used to evaluate compatibility.

COMMENT

Yes No NK

X

3-6 INJECTION WELLS3-6.2 (Cont'd)

8. In the space below, please render a vertical profile/brief sketch of all known aquifers above or below the injection zone. Indicate the depth of the injection zone, and the separation between injection zone and the nearest source of drinking water.

Injection Description and Pictorial Representation

Well was approximately 125 feet deep. Design of well unknown. Injection zone unknown. Attached is geological profile of area. No underground sources of drinking water in area. Niagara River is a drinking water source.

3-6 INJECTION WELLS3-6.3 EVIDENCE OF RELEASE/REMEDATION

Please provide the following information on any prior or current release of hazardous waste or hazardous waste constituents associated with the SWU described in the preceding pages.

Evidence of Release

<u>None</u>	<u>Indirect*</u>	<u>Positive Proof from Direct Observation</u>	<u>Positive Proof from Laboratory Analyses</u>
		<u>X</u>	

Comment Injection Well

is a direct release to the environment.

*e.g., discoloration of surrounding soil, dead vegetation

Characteristics of Release

DEC Hazardous Waste #
or Waste Description 2

Estimated Quantity or
Volume Released (Units)

Date(s) of
Release

Nature of Release

See above question

3-6.1

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-6 INJECTION WELLS

3-6.3 (Cont'd)

For the SMDU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil or groundwater (GW) should be attached. Include any information/data (including groundwater monitoring data) submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please specify below:

GW Monitoring Data Attached	Soil Analytical Data Attached
None	

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes No	NK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes No	NK	Start Date	Description/COMMENT

Planned to be Implemented Yes No	NK	Start Date	Description/COMMENT

FIGURE 6 --Water-bearing characteristics of unconsolidated deposits and bedrock in the Hyde Park area.
(Maslia and Johnston, 1982)

Water-bearing unit	Thickness (feet)	Lithologic description	Water-bearing characteristics	Hydraulic properties
Undifferentiated lake deposits	0-20	Laminated clay and silt and thin beds of fine sand.	Clay and silts have low permeability and yield little water.	Hydraulic conductivity range: 0.0014 to 0.27 ft/d ^{1/2} .
Glacial till ("Hardpan")	0-10	Mixture of boulders and pebbles in a matrix of sand, silt, and clay.	Water occurs principally in thin sand lenses in till and a "washed zone" at the top of the bedrock.	
Lockport Dolomite	90-130	Dark-gray to grayish-brown massive to thin bedded dolomite, locally containing algal reefs, small masses of gypsum, limestone, and shaly beds at base.	Only important aquifer in Niagara Falls area. Ground water occurs principally in water-bearing zones parallel to bedding which are much more permeable than the surrounding rock. The upper 10 to 15 feet is the most permeable interval and contains vertical joints and small cavities formed by solution of gypsum. Well yields 10 to 100 gal/min mostly.	Average transmissivity is 300 ft ² /d; ^{2/} probable hydraulic conductivity range: 10 ft/d (upper 15 feet) to 1 ft/d (lower part).
Rochester Shale	60	Dark-gray calcareous shale.	Very low permeability shale. Yields no significant water to wells.	Unknown. Hydraulic conductivity assumed to be 2 to 3 orders of magnitude less than that of Lockport Dolomite.

^{1/}Based on well-recovery test data from Conestoga-Rovers Associates.

^{2/}Based on steady-state analysis of 18,000-foot section of dewatered conduit penetrating the Lockport Dolomite; average gradient (0.017 ft/ft) and average pumping rate (1,400,000 gal/d) (Johnston, 1964).

B-3-7 INCINERATORS AND THERMAL "TREATMENT" UNITS

NOTE: COMPLETE 3-7.1 THROUGH 3-7.3 FOR EACH INDIVIDUAL INCINERATOR/THERMAL TREATMENT UNIT WHICH IS EITHER CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

3-7.1 WASTE CHARACTERISTICS

Provide the following information regarding the wastes that are/have been treated or disposed of in each incinerator/thermal treatment unit on your site. Identify the units according to how map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation (from - to) for units presently inactive. Include the hazardous waste code from 684.22-371.4 for each listed hazardous waste handled at each unit.² If you handle hazardous wastes which are not cited in Part 371.4, enter the code(s) from 684.22-371.3 that describes the characteristics and/or the toxic constituents of those hazardous wastes.² For any wastes which do not have a corresponding DEC hazardous waste number please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an AHAAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit identified.

[illegible]

UNIT ID as coded on your facility site map.

² EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMU identified on the preceding page. Questions 2-5 apply to incinerators. Question 6 applies to either incinerators or other thermal treatment units. Questions 7 and 8 refer to only thermal treatment units (other than incinerators). Please answer only as applicable.

1. Briefly describe incineration/thermal treatment processes. If unknown, indicate.

NK Description/COMMENT

Mercury sludges are placed in retort oven to vaporize mercury. The vapors are passed through a condenser to recover mercury and then vented to the atmosphere. Retort ash is sent off-site while recovered mercury is recycled back to process.

2. What was/is the unit's destruction and removal efficiency (DRE) for each principal organic hazardous constituent (POHC)?

WASTE CONSTITUENT ²	POHC	DRE	NK	COMMENT
D009	Mercury	99.9%		Stack tests for EP 308.

3. Were/are measures taken to monitor the organic destruction performance of the unit? Describe frequency of monitoring in the comment area.

Yes No NK COMMENT

X

4. What was/is the unit's HCl scrubbing efficiency? HCl emission rate?

HCl Scrubbing Efficiency NK NA HCl Emission Rate (kg/hour) NK NA COMMENT

X

5. Provide emission rate of particulate matter if available (mg per dry standard cubic meter):

NA

1 Unit ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.2 (Cont'd)

6. Was/is air monitoring conducted at locations beyond the facility property? If yes, please attach any monitoring data available and indicate below the locations of the monitoring stations.

Data Attached?		Monitoring Station Locations		Waste Constituents Monitored ²
Yes	No	Yes	No	
	X			

COMMENT

The remaining questions apply to thermal treatment units other than incinerators.

7. Was/is the process a non-continuous (batch) process? Yes ☒ No ☐ NK ☐

- a. If no, was/is the process operating at steady state conditions (including temperature) before adding hazardous waste? Yes ☐ No ☒ NK ☐

- b. Were/are the following parameters monitored? Provide values, if available.

	Yes	No	NK	Value	COMMENT
1. Heating value		X			
2. Halogen content		X			
3. Sulfur content		X			
4. Concentration of lead		X			
5. Concentration of mercury	X				Est. 50 ppm in retort ash.

8. Please describe thermal process equipment monitoring and inspection procedures in the space provided. If unknown, indicate.

NK	Thermal Process Description/COMMENT
	Daily area inspection. Operating inspection before each use.

Again, please attach recent monitoring (both on-site and ambient) data if available.

¹ UNIT ID as coded on your facility site map.

² EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide information on any prior or current uncontrolled emissions of hazardous waste or hazardous waste constituents associated with the incinerator/thermal treatment unit described in the preceding pages.

Evidence of Release

None Indirect* Positive Proof from Direct observation

COMMENT

X

*e.g. atypical cloud releases, "puffs"

Characteristics of Release

DEC Hazardous Waste 1 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and Criteria Constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.3 (Cont'd)

For the SWMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please specify below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates	Description/COMMENT

Currently Implemented Yes	No	NK	Start Date	Description/COMMENT

Planned to be Implemented Yes	No	NK	Start Date	Description/COMMENT

3-7 INCINERATORS AND THERMAL, 'TREATMENT' UNITS

NOTE: COMPLETE 3-7.1 THROUGH 3-7.3 FOR EACH INDIVIDUAL PARTICIPANT/THEIR/AL, TREATMENT UNIT WHICH IS EITHER CURRENTLY OR HAS PREVIOUSLY BEEN OPERATED ON YOUR SITE.

3-7.1 WASTE CHARACTERISTICS

provide the following information regarding the wastes that are/have been treated or disposed of in each incinerator/thermal treatment unit on your site. Identify the units according to how map identifier code and provide the appropriate EPA process code.² Indicate the operational status of the unit, identifying the first year of operation for active units or the inclusive dates of operation [from - to] for units presently inactive. Include the hazardous waste code from 68YCP-371.4 for each listed hazardous waste handled at each unit.² If you handle hazardous wastes which are not cited in Part 371.4, enter the code(s) from 68YCP-371.3 that describes the characteristics of these hazardous wastes.² For any wastes which do not have a corresponding DEC hazardous waste number please determine, as best you can, if the particular waste would be considered a hazardous waste or to contain hazardous waste constituent(s) under Part 371 and provide waste descriptions.² For each waste, indicate the quantity that was/is handled on an AHAAL basis. Provide the appropriate unit of measure (e.g., tons, cubic yards, drums or gallons). Please indicate (x) in last column if any prior or current release of hazardous waste or hazardous waste constituents was/is associated with the unit identified.

[illegible]

UNIT ID as coded on your facility site map.

2. EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.2 WASTE MANAGEMENT PRACTICES

Please answer the following questions concerning waste management practices associated with the SMD identified on the preceding page. Questions 2-5 apply to incinerators. Question 6 applies to either incinerators or other thermal treatment units. Questions 7 and 8 refer to only thermal treatment units (other than incinerators). Please answer only as applicable.

1. Briefly describe incineration/thermal treatment processes. If unknown, indicate.

NK Description/COMMENT

Mercury sludges are placed in retort oven to vaporize mercury. The vapors are passed through a condenser to recover mercury and then vented to the atmosphere. Retort ash is sent off-site while recovered mercury is recycled back to process.

2. What was/is the unit's destruction and removal efficiency (DRE) for each principal organic hazardous constituent (POHC)?

WASTE CONSTITUENT ²	POHC	DRE	NK	COMMENT
D009	Mercury	99.9		Stack test for EP 309.

3. Were/are measures taken to monitor the organic destruction performance of the unit? Describe frequency of monitoring in the comment area.

Yes	No	NK	COMMENT
	X		

4. What was/is the unit's HCl scrubbing efficiency? HCl emission rate?

HCl Scrubbing Efficiency	NK	NA	HCl Emission Rate (kg/hour)	NK	NA	COMMENT
		X				

5. Provide emission rate of particulate matter if available (mg per dry standard cubic meter):

NA

- 1 UNIT ID as boxed on your facility site map.

- 2 EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in part 1 DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.2 (Cont'd)

6. Was/is air monitoring conducted at locations beyond the facility property? If yes, please attach any monitoring data available and indicate below the locations of the monitoring stations.

Data Attached?		Monitoring Station Locations	Waste Constituents Monitored ²
Yes	No		
	NK		
	X		

COMMENT

The remaining questions apply to thermal treatment units other than incinerators.

7. Was/is the process a non-continuous (batch) process?

Yes ☒ No ☐ NK ☐

- a. If no, was/is the process operating at steady state conditions (including temperature) before adding hazardous waste?

Yes ☐ No ☒ NK ☐

- b. Were/are the following parameters monitored? Provide values, if available.

	Yes	No	NK	Value	COMMENT
1. Heating value		X			
2. Halogen content		X			
3. Sulfur content		X			
4. Concentration of lead		X			
5. Concentration of mercury	X				est. 50 ppm in retort ash.

8. Please describe thermal process equipment monitoring and inspection procedures in the space provided. If unknown, indicate.

NK Thermal Process Description/COMMENT

Daily area inspection. Operating inspection before each use.

Again, please attach recent monitoring (both on-site and ambient) data if available.

¹ UNIT ID as coded on your facility site map.

² EPA Process Codes, DEC Hazardous Waste Codes and criteria constituting wastes are defined in Part I DEFINITIONS of this questionnaire.

3-7 INCINERATORS AND THERMAL TREATMENT UNITS

3-7.3 EVIDENCE OF RELEASE/REMEDIATION

Please provide information on any prior or current uncontrolled emissions of hazardous waste or hazardous waste constituents associated with the incinerator/thermal treatment unit described in the preceding pages.

Evidence of Release

None Indirect* Positive Proof from Direct observation

X

COMMENT

*e.g. atypical cloud releases, "puffs"

Characteristics of Release

DEC Hazardous Waste 1 or Waste Description 2

Estimated Quantity or Volume Released (Units)

Date(s) of Release

Nature of Release

NA

1 UNIT ID as coded on your facility site map.

2 EPA Process Codes, DEC Hazardous Waste Codes and Criteria Constituting wastes are defined in Part 1 DEFINITIONS of this questionnaire.

3-7 INCIDENTAL AND THERMAL TREATMENT UNITS

3-7.3 (Cont'd)

For the SHMU described above, please provide any analytical data that may be available which would describe the nature and/or extent of environmental contamination that exists as a result of release. Any information on the concentration of hazardous waste or hazardous waste constituents in contaminated soil, groundwater (GW), surface water (SW) or air should be attached. Include any information/data submitted to EPA and the State under any other regulatory programs (e.g., Superfund) that concerns prior or continuing releases as described above. If any analytical data are attached for the unit, please specify below:

GW Monitoring Data Attached	SW Analytical Data Attached	Soil Analytical Data Attached	Air Monitoring Data Attached
NA			

For the prior/current release documented above please describe relevant remediation implemented or planned.

Previously Implemented Yes	No	NK	Inclusive Dates	Description/Comment

Currently Implemented Yes	No	NK	Start Date	Description/Comment

Planned to be Implemented Yes	No	NK	Start Date	Description/Comment