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July 2, 1993

Mr. Paul Counterman, P.E., Director
Bureau of Hazardous Waste Facility Management
Division of Hazardous Substances Regulation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Subject: Closure of IBM Kingston Chemical Distribution Building 029
Reference(s): EPA I.D. # NYD001359694
NYSDEC Permit No. 3-5154-67/1-0

Dear Mr. Counterman:

This letter is to notify the New York State Department of Environmental Conservation of IBM Kingston's intent to close the subject Chemical Distribution Center, in accordance with Attachment VIII of the site's NYSDEC Part 373 Permit. A copy of the closure plan, which has been revised to reflect NYSDEC draft guidance for decontamination criteria, is attached.

If you have any questions, please do not hesitate to contact me on (914) 433-9396 or Bonnie MacBrien on (914) 433-9390.

Sincerely yours,

James J. Everhart

James J. Everhart
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DEC I.D. Number 3-5154-67/1-0

PART 373 PERMIT
ATTACHMENT VIII
CLOSURE PLAN

IBM KINGSTON
6 NYCRR PART 373 PERMIT APPLICATION

TABLE OF CONTENTS

8.0 CLOSURE PLAN

The purpose of this Plan is to ensure that adequate planning and procedures exist for this facility's closure, and that sufficient funds have been set aside for such closure. 6 NYCRR Part 373 requires that the Plan include:

1. A description of how and when the facility will be partially closed (if applicable) and finally closed.
2. An estimate of the maximum quantity of wastes in treatment and storage at any time during the facility's life.
3. A description of the steps needed to decontaminate the facility equipment during closure.
4. An estimate of the year of final closure, and a schedule for the closure steps (see note below)

In addition, the facility owner/operator must:

1. Amend the Closure Plan whenever changes in operations or design affect the Plan, or the expected year of closure is changed.
2. Notify EPA and NYSDEC at least 180 days prior to the date closure is expected to begin.

8.1 CLOSURE PLAN/COST ESTIMATES FOR SPECIFIC FACILITIES

The following subsections describe the steps and an estimate of the costs that will be incurred during the closure activities that will be used to closure Building 029, Chemical Distribution Center, at the IBM Kingston facility.

8.1.1 Decontamination/Closure Procedures

A. Remove all drummed wastes and waste containers, and transport to an EPA- and IBM-approved disposal facility.

B. Review operating records to determine if spills have occurred in the building, and if so, what chemical or waste was spilled.

C. If no evidence of release is found, inspect walls and floors to identify any potential migration pathways such as cracks and joints. If found, seal potential pathways.

D. Steam clean the interior walls, floors, shelves, and the ductwork (inside and outside) of all chemical storage, dispense/mix, and loading rooms. Corridors, rest rooms, and offices need not be washed.

E. Collect wash water contained in bermed rooms and/or spill tanks with vacuum truck for transfer to treatment facilities off-site.*

8.1.1.1 Decontamination Closure Criteria for Coated/Uncoated Porous Surfaces (from NYSDEC draft Guidance Document)

A. After all hazardous waste and equipment/containers have been removed from the TSD unit, and prior to decontamination of the concrete containment surfaces, the following procedures shall be followed:

1. If there is no record of release or visible evidence of release, coated/uncoated concrete surfaces should be inspected. The purpose of this inspection is to identify areas of potential contamination or migration pathways such as cracks, joints, etc., for releases to the outside of the structure.

   a. If potential migration pathways in the concrete containment structure exist, they shall be sealed or repaired before cleaning or application of the rinseate test. Then the containment surface may be decontaminated with water, steam or sand-blasted, or by other suitable cleaning procedures; any wastewater or solid waste generated during the decontamination will be handled as a hazardous waste until proved otherwise via laboratory testing. When decontamination procedures are complete, sampling will be performed to determine if decontamination has been achieved.

      Protocols for assessing the decontamination of the TSD unit, are as follows:

(1) If a Department-approved "Rinseate Test" is used, rinseate samples will be collected from the point(s) where maximum contamination is anticipated. The "Rinseate Test" shall be one that minimizes the use of water, and that demonstrates the water to be free of analytes for which the assessment is being carried out. Contaminants detected in these samples will be compared against the Groundwater Action Level concentrations. Rinseates that have contaminant levels less than or equal to Action Levels, indicate successful decontamination.

(2) If a Department-approved "Wipe Test" is used, sampling will take place at the point(s) where maximum contamination is anticipated. The unit will be considered decontaminated when analysis results are non-detectable.

b. TSD units successfully decontaminated by this protocol may be reused to manage hazardous or non-hazardous waste, or disposed of as non-hazardous waste. TSD units that have not achieved decontamination by this protocol must be managed as hazardous waste upon demolition and disposal of the unit.

2. If there is a record of release or any visible evidence of release of hazardous waste, including hazardous constituents, the concrete surface shall be cleaned (sweeping, scraping, brushing, etc.) to remove residues which adhere to the surface before any decontamination sampling. The removed residual shall be handled and stored for disposal as a hazardous waste.

a. If the concrete surface has an impervious coating, the surface shall be inspected for migration release pathways to the environment. If there is no damage to or the integrity of the surface is intact, then the protocol in paragraphs 1 and 2 shall apply. Should this visual inspection reveal any cracks or other deterioration indicating

that hazardous waste may have migrated from the containment system, soil samples shall be obtained from beneath or external to the structure. These samples will be located along obvious routes of potential migration such as concrete joints, the floor trench, the sump, or areas of structural deficiency. These samples will be analyzed to determine whether or not the subsurface is contaminated. After subsurface soil samples are taken, the decontamination protocols in paragraphs 1 and 2 shall follows.

b. For an uncoated concrete surface with a record of release or visible evidence of release, soil sampling shall be implemented as discussed in the preceding paragraph. However, this scenario will also require collection of chip or core samples from the containment structure.

   (1) Concrete chips and cores must be analyzed to determine if contamination penetrated surface, and should the unit be managed as hazardous waste upon demolition and disposed of (i.e., does it meet the TLCP regulatory levels and does it contain contaminants from listed hazardous waste). Where releases of listed hazardous waste contaminated the concrete surface chips or core must be analyzed for all hazardous constituents (i.e., total concentration of constituents) possibly contained in the concrete, including constituents in leachate from the concrete. Concrete structures that exhibit a characteristic must be managed as hazardous waste. Concrete structures contaminated with listed hazardous waste must be managed as hazardous waste if they do not meet the "Contained-In" Guidance which includes consideration of Land Disposal Treatment Standards.

c. Concrete structures that do not exhibit a characteristic or meet the Contained-In Guidance shall be subject to the decontamination protocol of paragraphs 1 and 2.

d. Structure made of asphalt with evidence of release shall be disposed of as hazardous waste, and the subsurface soils sampled as per the Closure Plan. Where no evidence of releases exist and there is no visible evidence of release, asphaltic structures shall be managed as solid waste.

3. Wipe samples will be taken at the point where maximum contamination is anticipated. Wipe samples will be analyzed for those chemicals/waste constituents formerly stored in these areas. If parameters are detected, decontamination of these areas will be conducted. Final decontamination verification will be accomplished by again taking wipe samples in areas where the maximum contamination was detected. The area will be considered decontaminated when analysis results are non-detectable.
4. If evidence of a release is found, the surfaces will be cleaned by either scraping, scarifying, or hydroblasting etc. and Step 3 will be undertaken.
5. Remove cover material above tanks to expose upper surfaces. Removing the 3-inch diameter fill pipes to provide spray nozzle access, steam clean interior of all spill tanks. Sample and analyze collected water to verify decontamination of cleaned surfaces.

8.1.1.2 Decontamination Closure Criteria for Non-porous Hazardous Waste Tank Systems

A. Testing for decontamination shall commence after all hazardous waste has been removed and tank system equipment surfaces have been thoroughly cleaned. At a minimum, all samples will be analyzed for the hazardous waste, including hazardous constituents that had been managed in the specific tank system.

Protocols for assessing the decontamination of the tank systems are as follows:

1. If a Department-approved "Rinseate Test" is used, rinseate samples will be collected from the point(s) where maximum contamination is anticipated. The "Rinseate Test" shall be one that minimizes the use of water and that demonstrates the water to be free of analytes for which the assessment is being carried out. Contaminants detected in these samples will be compared against the Groundwater Action Level concentrations. Rinseates that have contaminant levels less than or equal to Action Levels indicate successful decontamination.
2. If a Department-approved "Wipe Test" is used, sampling will take place at the point(s) where maximum contamination is anticipated. The equipment will be considered decontaminated when analysis results are non-detectable.

B. Test for decontamination by testing rinseate for constituents released to tank. Levels less than or equal to groundwater action level concentrations will indicate a successful decontamination and tanks will be capped and left in place.

C. Remove water from tanks with vacuum truck for transfer to treatment facilities off-site.*

D. Tank systems which demonstrate successful decontamination by either protocol may be reused to manage hazardous waste, non-hazardous waste, products or raw materials. Disposal of such tank systems would be as non-hazardous waste. Tank systems that have not achieved decontamination as demonstrated by either protocol must be disposed of as hazardous waste, or may be used to manage hazardous waste. When tank systems are used to manage hazardous waste, the system must be in conformance with all applicable Part 373 regulations.

E. Soil samples will be taken if visual inspection indicates the possibility of contamination around the container storage area.

F. Pressure test the cleaned tanks.

G. Reconnect fill pipes and replace tank cover material.

H. Prepare and submit closure certification.

* For purposes of this cost estimate, off-site treatment of wash water as a hazardous waste is assumed. However, if appropriate, treatment at the on-site Industrial Waste Treatment Plant will be utilized.

8.1.2 Necessary Equipment and Labor, and Associated Costs

KINGSTON CDC CLOSURE COSTS
Proposed Closure Plan
Steam Clean Entire Facility (Twice)

LABOR

QTY	DESCRIPTION	DAYS	HRS/ DAY	COST/ HOUR	TOTAL	COMMENTS
4	Chemical Technicians	14	8	$45	$20,160	Steam cleaning/washing
1	Class I/II Driver	14	8	$50	$5,600	Vacuum truck/Trailer
1	Project Supervisor	15	8	$60	$7,200	Supervisor
1	Registered Professional	3	8	$125	$3,000	Certify Cleaning
		Sub-Total			$35,960	

EQUIPMENT

QTY	DESCRIPTION	DAYS	COST/ DAY	TOTAL	COMMENTS
1	Trailer	2	250	$500	For Backhoe/Equipment
1	Backhoe	5	480	$2,400	Expose Spill Tanks
1	Forklifts	1	150	$150	To remove chemicals
1	Van	14	120	$1,680	For Chemical Tech's
2	High Pressure/Steam Cleaning units	14	125	$3,500	
1	Personal Vehicle	15	75	$1,125	For Supervisor
1	Vacuum Truck	12	800	$9,600	For Rinse Water
7	Personal Safety Equipment	14	40	$3,920	
7	Disposable Safety Equipment	14	45	$4,410	
4	Small Tools and Expendables	14	25	$1,400	
		Sub-Total		$28,685	

LABORATORY TESTING

QTY	DESCRIPTION	UNIT COST	TOTAL
6	Spill Tank Samples	$1,200 each	$7,200
28	Wash Water Samples (assumes composite samples)		$33,040
6	Pressure Tests (spill tanks)	$500 each	$3,000
	Sub-Total		$43,240

DISPOSAL AND TRANSPORTATION

Wash water to an EPA and IBM approved treatment/disposal facility

Assumes 24,000 total gallons $3.5/gal $84,000

(Potential gallonage $0.03 x 24,000 gallons, Kingston IW Treatment Costs $720)

(4 days x 2 units x 8 hrs/day x 250 gal/hr) = 16,000 gal
(8 days x 2 units x 8 hrs/day x 62.5 gal/hr) = 8,000 gal

24,000 gal

Sub-Total $84,000

Grand Total $191,885 Using Kingston IWTP – $108,605

8.1.3 Maximum Volume of Waste in Storage

Building 029 has a potential storage capacity of 1,605 drums of wastes (55 gallons each), but does not currently store at full capacity. No treatment activities take place at this facility.

8.1.4 Closure Schedule

The following table presents an estimated overall closure schedule for the Chemical Distribution Center:

Event	*Completed by Day*
Notify EPA and NYSDEC of intent to close facility (July 2, 1993)	0
Receive final volume of waste	150
Begin closure	180
Removal and disposal of final waste inventories	195
Triple rinse interior walls, floors, shelves, and ductwork, rinse interior of spill tanks, dispose of wash water, and verify decontamination	215
Final cleanup and equipment decontamination	215
Certification submitted to EPA and NYSDEC	230

8.2 CLOSURE SAMPLING AND ANALYTICAL METHODS

All sampling and analytical methods used will be in compliance with SW-846, latest edition.

Wipe Samples:

Parameter	*Sampling Method*	*Analytical Method*
Organics	3510	SW-846, 8240, 8270 and 8080
Metals	3010	SW-846, 1311 and 6010
Cyanides	N/A	SW-846, 9010

Rinseate Samples:

Parameter	*Sampling Method*	*Analytical Method*
Organics	3510	SW-846, 8240, 8270 and 8080
Metals	3010	SW-846, 1311 and 6010
Flash Point	N/A	SW-846, 1020