NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER
3-1328-00025/00249-0

FACILITY/PROGRAM NUMBER(s)
NYD 000 707901

PERMIT
Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE
September 29, 1995

EXPIRATION DATE
September 29, 2005

Modified: DRAFT

TYPE OF PERMIT (Check All Applicable Boxes)
☐ New ☐ Renewal ☒ Modification ☐ Permit to Construct ☐ Permit to Operate

☐ Article 15, Title 5: Protection of Water	☐ Article 17, Titles 7, 8: SPDES	☒ Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
☐ Article 15, Title 15: Water Supply	☐ Article 19: Air Pollution Control	☐ Article 34: Coastal Erosion Management
☐ Article 15, Title 15: Water Transport	☐ Article 23, Title 27: Mined Land Reclamation	☐ Article 36: Floodplain Management
☐ Article 15, Title 15: Long Island Wells	☐ Article 24: Freshwater Wetlands	☐ Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control
☐ Article 15, Title 27: Wild, Scenic & Recreational Rivers	☐ Article 25: Tidal Wetlands	☐ Other _____
☐ 6NYCRR 608: Water Quality Certification	☐ Article 27, Title 7; 6NYCRR 360: Solid Waste Management	

PERMIT ISSUED TO NYS Urban Development Corp. dba Empire State Development Corp. (owner)
International Business Machines Corporation (operator)

TELEPHONE NUMBER
(212) 803-3100

ADDRESS OF PERMITTEE 633 3rd Avenue, New York NY 10007
Route 52, Hopewell Junction NY 12533-0999

CONTACT PERSON FOR PERMITTED WORK
Salvatore Tranchina (IBM)

TELEPHONE NUMBER
(914) 892-1629

NAME AND ADDRESS OF PROJECT/FACILITY
IBM, East Fishkill Facility, Route 52, Hopewell Junction NY 12533-0999

LOCATION OF PROJECT/FACILITY

COUNTY	TOWN	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Dutchess	East Fishkill	N/A	E: N: 4

DESCRIPTION OF AUTHORIZED ACTIVITY

Operation of a hazardous waste storage facility, located in the Chemical Storage Building (Building 309). There are five rooms in the Chemical Storage Building utilized for container storage of hazardous waste. The rooms are 2, 7, 8, 9 and 23. Room 2 has a total capacity of 1000 drums (55 gal.), Room 7 has a total capacity of 1,352 drums (55/20/5 gal.), Room 8 has a capacity of 388 drums (55 gal.), Room 9 has a capacity of 224 drums (55 gal.) and Room 23 has a capacity of 150 drums (55 gal.).

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

DEPUTY PERMIT ADMINISTRATOR	ADDRESS	
Margaret E. Duke	21 South Putt Corners Rd., New Paltz NY 12561	☞ med
AUTHORIZED SIGNATURE DRAFT	Date	Page 1 of 5

95-19-5 (11/95)—10c

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR PERMIT TRANSFER

(In Accordance with Uniform Procedures, Part 621.13)

Please read ALL instructions on back before completing this application. Please TYPE or PRINT clearly in ink.

PART 1—TRANSFEREE (NEW OWNER/OPERATOR/LESSEE) COMPLETES:

1. LIST PERMIT NUMBER(S) AND THEIR EFFECTIVE AND EXPIRATION DATES.

See Attachment A (IBM Corporation)

2. NAME OF TRANSFEREE New York State Urban Development Corp. d/b/a Empire State Development Corporation

If other than an individual, provide Taxpayer ID Number 13-2624287

STREET: 633 Third Avenue

TELEPHONE NUMBER: (212) 803-3100

CITY: New York | STATE: NY | ZIP CODE: 10017

3. TRANSFEREE IS A/AN: ☒ Owner ☐ Operator ☐ Lessee See Attachment A

4. NAME OF FACILITY/PROJECT: IBM East Fishkill Facility

STREET: 1580 Route 52

CITY: Hopewell Junction | STATE: NY | ZIP CODE: 12533

COUNTY: Dutchess | TOWN: East Fishkill

5. HAS WORK BEGUN ON THE PROJECT? not applicable

☐ Yes ☐ No If no, proposed starting date: _____ Approximate completion date: _____

If there will be any modifications to the current operation, the transferee must attach a statement specifying the details.

6. CERTIFICATION: This certifies that the transferee is the current owner/operator/lessee of the named facility, has a copy of the permit, understands and will comply with all conditions in the referenced permit. Facility operations/project scope/discharges/emissions will remain the same. Further, I hereby affirm that under penalty of perjury that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature and Title See Attachment A Date _____

PART 2—TRANSFEROR (FORMER OWNER/OPERATOR/LESSEE) COMPLETES:

1. NAME OF TRANSFEROR: IBM Corporation

If other than an individual, provide Taxpayer ID Number 13-0371985.03

STREET: 1580 Route 52

TELEPHONE NUMBER: (914) 892-1629

CITY: Hopewell Junction | STATE: NY | ZIP CODE: 12533

2. NAME OF FACILITY/PROJECT, IF DIFFERENT FROM NAME IN PART 1:

IBM East Fishkill Facility East and West Complex

3. CERTIFICATION: This certifies that the facility referenced in Part 1 of this form will be/was transferred to the party identified as the new transferee (owner/~~operator/lessee~~) on 02/15/99 (date). See Attachment A

Signature and Title M. Lacey General Manager, Interconnect Products Date 12/2/98

PART 3—PERMIT TRANSFER VALIDATION SECTION—DEPARTMENT OF ENVIRONMENTAL CONSERVATION COMPLETES:

☐ Transfer of permit approved. Transferee subject to conditions of permit, without exception.

☒ Transfer of permit approved, with the following modifications: ☐ See attached revised permit page(s) _____

This transfer is effective the date of the closing for the transfer of property, expected to be on or about Dec, 30, 1998. Written verification of the property transfer must be submitted to the Department's Region 3 Regional Permit Administrator.

☐ New application required. Please complete the enclosed permit application and return it to the undersigned Regional Permit Administrator, Division of Regulatory Services, at the appropriate office of the Department (see map on reverse).

Signature Margaret E. Duke Regional Permit Administrator Date _____

New York State Department of Environmental Conservation
21 South Putt Corners Road, New Paltz, NY 12561-1696
(914) 256-3000 - Division of Regulatory Services
FAX (914) 255-3042

Michael D. Zagata
Commissioner

September 29, 1995

MR JOSEPH M HOGAN
IBM CORPORATION EAST FISHKILL FACILITY
1580 ROUTE 52 Z/44X
HOPEWELL JUNCTION NY 12533-0999

Re: Part 373 Hazardous Waste Management Permit
IBM East Fishkill Facility
EPA ID# NYD 000 707 901
DEC Permit #3-1328-00025/00249-0

PERMIT TRANSMITTAL NOTICE

Dear Mr. Hogan:

Enclosed is the approved, final Hazardous Waste Management Permit for the IBM East Fishkill facility. In response to your August 8, 1995 comments, the final permit revises several of the special conditions on pages 3 of 5 and 4 of 5, as well as other sections of the permit. These revisions are included in the enclosed Responsiveness Summary.

The bound draft permit documents that were sent to you with the June 16, 1995 Notice of Complete Application shall serve as the final permit. Please replace the original draft pages with the enclosures.

Please review the permit special conditions, modules, appendices and attachments carefully. The permit is valid for only those activities authorized; activities beyond the scope of the permit may be considered a violation of law and subject to appropriate enforcement action.

Please note the expiration date of the permit. Applications for permit renewal must be made at least 180 days prior to the expiration date. Please contact our office for specific renewal instructions.

The DEC permit number and program ID number on the top of page 1 of the permit should be retained for your records. Please reference these numbers on all correspondence related to this permit and on any future applications for permits associated with this facility.

If you have any questions on the extent of work authorized or your obligations under the permit, please contact Aida Potter of DEC's Division of Hazardous Substances Regulation at (914) 256-3135. Thank you.

Sincerely,

Margaret E. Duke

Margaret E. Duke
Regional Permit Administrator
Region 3

MED/WRS/ll

Enclosures: Volume I: pages 1-5 of final permit, table of contents, modules I, II, III, IV
Volume II: revised pages
Responsiveness Summary

cc: R. Aldrich/A. Potter (w/o Enclosures)
E. Dassatti (7252) (w/Enclosures)
A. Bellina, Chief, Haz. Waste Facilities Branch, EPA (w/Enclosures)

Hogan.ltr

Responsiveness Summary
for the 6NYCRR Part 373 Permit for
the International Business Machines Corporation
East Fishkill, New York

INTRODUCTION

This document has been prepared pursuant to 6NYCRR 612.9(e). It contains the New York State Department of Environmental Conservation's (NYSDEC) response to public comments received during the comment period on the draft 6NYCRR Part 373 Permit for the IBM Corporation facility in East Fishkill, New York (hereinafter referred to IBM East Fishkill Facility).

BACKGROUND

On June 28, 1995 a public notice was provided to inform the public that IBM East Fishkill Facility had submitted a complete hazardous waste management permit application and that the draft 6NYCRR Part 373 Permit was available for public review and comment. The public comment period ended on August 18, 1995. The draft 6NYCRR Part 373 Permit includes: conditions for the operation of a hazardous waste container storage area, the corrective action for releases of hazardous waste or hazardous constituents from solid waste management units (SWMUs) and areas of concern (AOCs), the implementation of a waste reduction program and a groundwater monitoring program.

The NYSDEC received one (1) set of comments on the draft permit. These comments were submitted by IBM East Fishkill on August 14, 1995 in a letter from Mr. Joseph M. Hogan, Manager, Environmental and Chemical Services at IBM Fishkill Facility, to Ms. Margaret Duke, Regional Permit Administrator of NYSDEC Region 3. In these comments the Permittee requested changes to the special conditions under Article 27, Volume I (corrective action conditions to provide consistency or clarification), and Volume 2.

This document includes the comments from the Permittee and the NYSDEC responses for any changes to the draft permit.

Response to Comments and Revisions

Response to IBM - East Fishkill Facility on its Draft 6NYCRR Part 373 Operating Permit dated June 28, 1995.

Comment 1-Part 373 Permit, Page 3 of 5, Condition #9

In order to clarify the intentions of the Department with respect to the groundwater Order on Consent, IBM suggests the following revision to this condition:

> "Site-Wide Corrective Action-Modules III and IX of this Permit address all areas of concern and environmental conditions identified by the Department as the basis for including the Facility on New York's Registry of Inactive Hazardous Waste Disposal Sites and for Issuing the Order on Consent dated April 27, 1981, captioned In the Matter of Compliance with Section 27-1313 of the Environmental Conservation Law ("ECL") by: International Business Machines Corporation (IBM). Therefore, as of and on the effective date of this Permit, all Permittee's obligations arising under that Order on Consent and under Article 27, Title 13 of the ECL and the implementing regulations promulgated thereunder at 6NYCRR Part 375 are terminated and superseded by this Permit."

This revision is offered so as to more explicitly identify the referenced Consent on Order and to better articulate the express intent of the Department as set forth in the pertinent text of the Registry of Inactive Hazardous Waste Disposal Sites, which states that "additional remedial work will be done as a corrective action module to the company's Part 373 permit."

IBM also believes the proposed revision to this condition is warranted for several additional reasons. First, paragraph VIII of the Order on Consent provides in pertinent part, that "no change or modification to this Order shall be made or be effective except as may be specifically set forth in writing by such Commissioner or Commissioner's representative..." Thus, the modifying language is offered so as to comply with the provision of the Order which govern its modification.

Second, the work that is to be conducted as part of the corrective action program contained in Modules III and IX of the Permit than that which is required pursuant to the Consent Order. In fact, more Areas of Concern are to be addressed under the Permit than are listed in the registry. Also the work envisioned under the Permit, includes an RFA, RFI and CM, which are equivalent to the work ordinarily required under Article 27, Title 13 and 6NYCRR Part. 375.

Finally, superseding the Consent on Order and IBM's obligations pursuant to ECL Article 27, Title 13 avoids duplication of effort or the need for IBM to follow or be concerned with more than one set of regulatory procedures and obligations. This will eliminate confusion on the part of IBM, the Department and the public with regard to which program has primacy without sacrificing appropriate regulatory oversight or cleanup objectives.

Response:

The Division of Solid & Hazardous Materials agrees that Module III and IX of the Part 373 permit addresses all areas of concern and environmental conditions identified by the Department as the basis for including the Facility on the New York's Registry of Inactive Hazardous Waste Disposal Sites and for issuing the Order on Consent dated April 27, 1981.

Condition 9 has been modified to terminate IBM's obligations under the Order on Consent. Therefore as of, and on, the effective date of this Part 373 permit, all of the Permittee's obligations arising under the Order on Consent are terminated and superseded by the obligations contained in this permit. However, the Part 373 permit cannot be utilized as the sole basis to remove the site from the Registry of Inactive Hazardous Waste Sites. A written request must be made by IBM to the Commissioner to remove the facility from the Registry and to terminate the responsibilities under Part 375.

Comment 2-Part 373 Permit,Page 3 of 5, Condition#6

As discussed in our May 10, 1995 correspondence that addressed comments on the draft 373 Permit, this condition should read as follows:

> The permittee must manage the environmental support operations(i.e., waste removal, treatment, storage and off-site disposal) of all IBM tenants during the entire term of the lease.

Apparently the words "chemical and" have been inadvertently left in this condition. Please remove the phrase "chemical and" from the sentence.

Response:

The permit condition #6 has been modified in response to this request.

Comment 3-Part 373 Permit,Page 3 of 5, Condition#7

The IBM facility also receives hazardous waste from off-site IBM facilities. We suggest the following revision to this condition.

> The permittee is authorized to accept and manage hazardous waste from on-site and off-site IBM operations and from on-site non-IBM tenant operations

Please add the words "and off-site" to the sentence.

Response:

The permit condition #7 has been modified in response to this request.

Comment 4-Module I,Page I-7, Condition#D.10(vii)

As specified in 373-2.5(b)(I)(v), a discrepancy report is required to be submitted by the TSDF receiving a shipment of hazardous waste rather than the generator of the hazardous waste shipment. In order to clarify this point, IBM suggests the following revision to the first sentence of this condition.

> If a significant discrepancy in a manifest received by the permittee is discovered, the permittee must attempt to reconcile the discrepancy with the generator or transporter.

Response:

Module I Page I-7 has been modified in response to this request.

Comment 5

The IBM East Fishkill facility is planning to initiate a new manufacturing process operation at the facility that will generate an additional hazardous waste stream. The waste stream will consist of spent ion exchange resin that has been utilized to recover gold from an electroplating solution. Based on information obtained from pilot testing, this waste stream would be classified with the EPA waste codes F006 and D004. For your information we have enclosed pages from Volume 2-Part 373 Permit Document Attachments that have been revised to address this additional waste stream(see Attachment 1).

Response:

Revised pages of Volume 2 have been replaced in response to this request. (Pages ii, I-32, I-32A, I-39, Page 3 of the Closure Plan for Room 23 and Table II-1(continued))

Comment 6

IBM has changed the personnel designated as emergency coordinators. For your information we have enclosed pages from Volume 2-Part 373 Permit Document Attachments that have been revised to reflect the new personnel designated as emergency coordinators(see Attachment 2)

Response:

Revised page of Volume 2 has been replaced in response to this request. (Page V-22)

Comment 7-Part 373 Permit,Page 1 of 5

The contact person for the Part 373 Permit for the IBM East Fishkill facility is Joseph M. Hogan. Please change the middle initial from "H" to "M" .

Response:

Correction has been made.

Comment 8

Item I.D(10)(xii)(2)(a) on page I-8 contains some improper grammatical references. We suggest that the item be revised as follows:

> If the coordinator's assessment(or the designee's) indicates that the evacuation of local areas may be advisable, the coordinator must immediately notify appropriate local authorities. The coordinator must be available to help appropriate officials decide whether local area should be evacuated;

Please replace the personal pronouns "she" and "they" with "the coordinator" and "the coordinator," respectively.

Response:

Module I page I-8 has been modified in response to this request.

Comment 9

Module I, Item H(1)(c) on page I-10 requires that all other reports and submittals required by the permit are to be submitted to the specified addresses. Many submissions(i.e., annual report) require that the reports be submitted to addresses that are different than those specified in this item. IBM proposes that reports that have addresses for submittal specified be submitted to that address instead of the address specified in this item. Suggested wording is as follows:

> All other reports and submittals required by the permit to be submitted to the Commissioner that do not have an address for submittal specified shall be sent to the following addresses:

Response:

Module I page I-10 has been modified in response to this request.

Comment 10

There are several references in Module II that are incorrect. The correct references are provided below:

> Module II,PageII-1,C,5th line:Module I, Condition D(8)(iv)
> Module II,PageII-4,K(2),11th line:Module I,Condition D(8)(ii)
> Module II,PageII-4,K(3):Condition D(10)(ix) of Module I

Response:

Module II pages 1 and 4 have been modified in response to this request.

COMMENTS ON PART 373 PERMIT MODULES III & IX

Comment 1:

The portion of Table of Contents for Module III does not have the correct page numbers. For example,

- Condition B.4 is on page III-6, not on page III-7
- Condition E.14 is on page III-52, not on page III-54

It is requested that table of contents be reviewed and updated to reflect the final version of Module III.

Response:

The Table of Contents has been modified in response to this request.

Comment 2:

Module III, Page III-12, Condition B.8(b):

> The last sentence in this condition appears to be missing a verb. This sentence should be revised as follows:
>
> The relevant reports and data *shall include* but not *be* limited to copies of daily reports, inspection reports, laboratory and monitoring data, etc. and other *data* not identified in Module Condition B.8.(a).

Response:

The Permit Module III has been modified in response to this request.

Comment 3:

Module III, Appendix D, Page D-2, Condition IV.A and IV.B:

> The text in these Module III Appendix D Conditions address both SWMU(s) and AOC(s), but the text in the referenced sections (Module III Conditions C.1 and C.2 on page III-14) address only SWMU(s).

Response:

The 373 Permit was not changed in response to this request.

Module Conditions C.1 and C.2 state ...to notify by writing of any additional, newly identified SWMU(s) which were constructed prior to the issuance of this Permit and which are located within an Area of Concern listed in this Module (e.g., Area A).... but also.... any newly constructed SWMU(s) and/or AOC(s) not listed in this Module.

Comment 4:

Module III, Page D-2, Condition IV.D:

The text in this Module III Appendix D Condition allows 30 days for the submission of revised plans after receipt of NYSDEC comments if a meeting is held and 45 days if no meeting is held, but Module III Condition C.4(b) on Page III-16 allows for submission of revised plans within 45 days after receipt of NYSDEC comments whether or not a meeting is held. It is requested that the text of Module Condition IV.D be revised to allow for submission of revised plans within 45 days after receipt of NYSDEC comments whether or not a meeting is held. This change would make the condition consistent with those scheduling requirements in the following other Appendix D Conditions: VI.B, IX.F, IX.C, XIII.C AND XV.B.

Response:

The Permit Module III Appendix D has been modified in response to this request.

Comment 5:

Module III, Page III-4, Table III-1:

The following revisions to Table III-1 appearing on Pages III-4 and III-5 which were submitted in our May, 6 1995 letter from J.M. Hogan to Mr Steve Kaminski were not made:

- Item 17 - Storage/Treatment Tanks - Delete B/332. Reinstate B/322 and B/323 which were deleted.
- Item 20 - Solvent Waste (Above Ground) - Renumber this item No. 21 and subsequent items through Item 32 - Mixed Solvents, IPA, NMP, NBA Waste.
- Item 22 (NYSDEC June 1995 version) - Fluoride/ Heavy Metals - Wastewater - Add D to B/330 to clarify B/330D.

Response:

The Permit Module III , Page III-4 and Table III-1 have been modified in response to this request.

Comment 6:

Module III, Appendix D, Page D-1, Condition I.B:

It is requested that Module III Appendix D Condition I.B be revised as noted below so that it is consistent with Module III Condition B.6.(b) on Page III-8:

> Pursuant to Module Condition B.6.(b), Permittee shall submit for approval an interim corrective measures work plan within thirty (30) calendar days after notifying the Commissioner of *a release or threatened release* that poses a significant and immediate threat to human health or the environment.

Response:

The Permit Module III Appendix D has been modified in response to this request.

Comment 7:

Module III, Appendix I:

The SPDES permit contained in Module III Appendix I is not the current permit. It is requested that the current SPDES permit effective April 13, 1995 through May 1 1998 (see Attachment 3) be inserted in Appendix I.

Response:

The Permit Module III Appendix I has been modified in response to this request.

Comment 8:

Module III, Appendix J and Module III, Page III-60, Condition E.17(c):

IBM agrees with the contents of Appendix J with the following exception: designation of wells as both "IMP" and

"CAM." The "IMP" or Interim Monitoring Programs cover the B/322 and B/330 Investigative Areas. In preparation of its Groundwater Monitoring Plan, IBM has discovered that the data analysis used for the annual report would be additional to what is required for groundwater RFIs for B/322 and B/330. IBM believes that data analysis for these two investigative areas should be completed through the RFI process and not the Groundwater Annual/Semi-annual Reports. Please note that data for B/322 and B/330 are reported semi-annually as part of the RFI. To avoid this confusion, IBM requests that the "CAM" designation from those wells designated "IMP" as shown Appendix J (see Attachment 4).

Response:

The Permit Module III Condition E.17© and Module III Appendix J have been modified in response to this request.

Comment 9:

Module III, Page III-68, Condition E.17(c)(3):

The text in this condition refer to Condition E.17(c)(1)(iv) on Page III-63, but Module Condition E.17(c)(1)(vii) on Page III-65 also refers to Condition E.17(c)(3). It is suggested that Condition E.17(c)(3) be revised to include Condition E.17(c)(1)(vii) as follows:

> If any additional hazardous constituents, as defined in 6NYCRR Part 373-2 Appendix 33, are identified to be present at concentrations at or above the method detection limits at the point of compliance wells *or those otherwise designated for Appendix 33 analyses*, as described by E.17.(c)(1)(iv) *and E.17.(c)(1)(vii)* of this Module, the following procedures shall be undertaken:

Response:

The Permit Module III, Page III-68 has been modified in response to this request.

Comment 10:

Module III, Page III-68, Condition E.17(c)(3)(ii):

This condition states that NYSDEC will be notified within 7 days of "such identification." As the prior item requires IBM to confirm the identification of an additional

constituent, and there is no requirement in any other item to advise NYSDEC of the results of confirmation test, it is suggested that Item E.17(c)(3)(ii) should read as follows:

The pertinent constituent(s), concentration(s) and well(s) shall be reported to the Commissioner within seven (7) days of such ~~identification~~ *confirmation*;

Response:

The Permit Module III, Page III-68 has been modified in response to this request.

Comment 11

Module III, Page III-38, Condition E.5(c)

In order to clarify the intent of this condition it is recommended that the following punctuation corrections be made to the first sentence of this condition to separate it into two sentence:

"...Become accessible. *T*he Permittee shall submit..."

Response:

The Permit Module III, Page III-38 has been modified in response to this request.

Comment 12

Module IX, Attachment A, Third Sentence:

IBM requests that the trigger mechanism for redevelopment of the monitoring wells be revised from in filling of 10 percent of the open screen area with silt to in filling in excess of 1 foot or 10 percent of the screen interval, whichever is greater. Due to short screens or open area in some deep wells (1-5 feet in some cases) detection of screen in filling between 0.1 to 0.5 feet may be difficult or impossible. Therefore, the following revision to the third sentence is requested:

Any well which is in-filled with silt in excess of 1 foot or ten percent of the screened or open interval, whichever is greater, will be redeveloped prior to the next sampling round.

Response:

The Permit Module IX, Attachment A has been modified in response to this request.

Comment 13

Module III Pages III-60 to III-66, Condition E.17(c)(1)(I) to (ix) and Module III, Appendix J:

> IBM East Fishkill is currently preparing a Groundwater Monitoring Plan for submittal to the NYSDEC for this corrective action program. IBM respectfully requests that instead of listing the wells in the permit itself that a reference be made instead to the Groundwater Monitoring Plan (to be submitted within the next 2-3 months). IBM insures that the wells listed in the June 1995 draft Module III will be included in the Groundwater Monitoring Plan. This change should make future modifications to the Groundwater Monitoring Plan more straightforward for both the NYSDEC and IBM. Mr. Steve Kaminski concurred with this approach in a telephone conversation (July 1995, M. West, IBM).

Response:

The Permit Module III has been Modified as a shown below in response to this request.

> The Corrective Action Performance Monitoring Network shall consist of the monitoring wells listed in Sections 17(c)(1)(I) through 17(c)(1)(ix) below. The listing of monitoring wells and sample frequencies along with a location map shall be submitted as part of the Groundwater Monitoring Plan required by Module IX, Condition C of this Permit.

Comment 14

Module III, Appendix J, Table III-11:

In October 1993, IBM agreed to replace four monitoring wells for this corrective action permit. The old wells which are dry shall be replaced with the following wells:

Old Well(Dry)	New Well
173	577
778	578
781	580
945	579

IBM shall submit the well logs for the new wells in its Groundwater Monitoring plan.

Response:

The Permit Module III, Appendix J, Table III-11 has been deleted. The Permit Module III, Appendix III-K Corrective Measures Cost Estimate and Financial Assurance has been renamed Appendix III-J.

Comment 15

Module III, Appendix D, Condition III.A:

It is requested that this condition be revised to make it consistent with Module III, Page III-13, Condition B.10(a):

Pursuant to Module III Condition B.10.(a), the Permittee shall provide written notice to the Commissioner within thirty (30) calendar days of confirmation that the facility releases of hazardous constituents in groundwater have migrated off-site *in concentration that exceed action levels*. The written notice to the Commissioner shall include a proposed plan to notify any person who owns or resides on the land which may overlie the contaminated groundwater.

Response:

The Permit Module III has been modified in response to this request.

Comment 16

Module III, Page III-44, Condition E.7(f):

The submittal of the results of Task VI of Appendix B - Laboratory and Bench Scale Studies at the same time as the RFI Final Report is considered to be premature in that remedial technologies will not have been evaluated on a site specific basis until after conduct of a Corrective Measures Study (CMS). A CMS will only be conducted if it is determined by the Commissioner. As indicated in Appendix B, Page B-23, Condition VII, Paragraph 1, Such rationale is supportable by guidance which states that the laboratory and or bench scale studies are to be conducted to be determine the applicability of a corrective measure technology. Therefore, it is respectfully requested that the entire Condition E.7(f) be deleted from Module III and the following revision to Module III, Page III-47, Condition E.11(a)(1) be made:

Summarize the ~~results of the investigations and, if applicable, of any bench-scale or pilot tests conducted;~~ *testing program required by Task VI of the Guidance for RFI in Appendix III-B of this Permit Module;*

Response:

The Permit Module III, Page III-44 has been modified in response to this request.

MODULE III - CORRECTIVE ACTION REQUIREMENTS
FOR SOLID WASTE MANAGEMENT UNITS AND
AREAS OF CONCERN

A. APPLICABILITY

1. Statute and Regulations. Article 27, Title 9, Section 27-0913, and 6NYCRR 373-2.6(l) requires corrective action, including Corrective Action beyond the facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit ("SWMU") at a storage, treatment or disposal facility seeking a 6NYCRR Part 373 permit, regardless of the time at which waste was placed in such unit. Pursuant to 6NYCRR 373-1.6(c)(2) the Commissioner may impose permit conditions as the Commissioner determines necessary to protect human health and the environment (i.e., Areas of Concern (AOC(s))).

2. Summary of Corrective Action Process. Corrective action implementation authorized by 6NYCRR 373-2.6 includes: (a) the RCRA Facility Assessment ("RFA"); (b) the RCRA Facility Investigation ("RFI"); and (c) Corrective Measures ("CM"). The RFA is a three phase process that includes: a Preliminary Review ("PR"); a Visual Site Inspection ("VSI"); and a Sampling Visit ("SV"). The PR is a review of all available information on the individual SWMU(s) and AOC(s). During the PR, and in subsequent phases of the RFA, all of the media (i.e., soil, groundwater, surface water/sediment, air and subsurface gas) that could potentially be impacted by release(s) of hazardous waste, including hazardous constituents, are evaluated. Based on this evaluation, the SWMU(s)/AOC(s) will be characterized as to release potentials.

   Following the PR, a VSI is conducted during which all of the SWMU(s)/AOC(s) either previously or newly discovered, are observed. While performing this reconnaissance, any signs of spills or leakage, stained soil, stressed vegetation, unit deterioration, or any other conditions that may be indicative of a release are assessed. By means of these observations and the findings of the PR, the Commissioner may require the facility to conduct a

Sampling Visit (SV) at the unit(s)/area(s) where the release(s) would be suspected.

The SV can involve any or all of the previously described media at any given SWMU and or Area of Concern (AOC). For those units/areas where releases are clearly demonstrated in the PR and/or VSI, the SV can be avoided leaving the unit(s)/area(s) to be addressed in the RFI.

The RFA includes preparing the RFA report. This report includes the findings of the various RFA activities and recommendations for further action at those units and areas with demonstrated releases of hazardous wastes, including hazardous constituents. In some cases, where an immediate threat to human health or the environment exists, interim corrective measures may be required.

If the RFA concludes that there is a need for further investigative work the Permittee shall be required to pursue phase two of corrective action, an RFI. The purpose of the RFI is to determine the nature, extent, direction and rate of migration of hazardous wastes, including hazardous constituents, in soils, groundwater, surface water/sediment, subsurface gas and/or air. From these multimedia analyses, the types and concentrations of contaminants present, the boundaries of any contamination (e.g., plumes), and the rate and direction of contaminant movement should be determined in each of the impacted media. Sufficient data shall be generated during the RFI to allow proper assessment of corrective measure alternatives. This may require bench and/or pilot studies to be implemented as part of the RFI. Once all analyses are reviewed, a RFI report is prepared that provides a summation of the data and recommendations for any needed corrective measures.

The culmination of the Corrective Action Program is Corrective Measures ("CM"). The initial stage of the corrective measures phase is the preparation of a Corrective Measures Study ("CMS"). A CMS may be required if concentrations of hazardous constituents in an aquifer, in surface water/sediment, in soils, or in air exceed their corresponding action levels. Such a study may also be required if individual concentrations of hazardous constituents are at or below their action levels, but they

95-20-6(10/90)-25c R3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER
3-1328-00025/00249-0

FACILITY/PROGRAM NUMBER(s)
NYD 000 707901

PERMIT
Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE
September 29, 1995

EXPIRATION DATE
September 29, 2005

TYPE OF PERMIT (Check All Applicable Boxes)
☒ New ☐ Renewal ☐ Modification ☐ Permit to Construct ☐ Permit to Operate

☐ Article 15, Title 5: Protection of Water	☐ Article 17, Titles 7, 8: SPDES	☒ Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
☐ Article 15, Title 15: Water Supply	☐ Article 19: Air Pollution Control	☐ Article 34: Coastal Erosion Management
☐ Article 15, Title 15: Water Transport	☐ Article 23, Title 27: Mined Land Reclamation	☐ Article 36: Floodplain Management
☐ Article 15, Title 15: Long Island Wells	☐ Article 24: Freshwater Wetlands	☐ Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control
☐ Article 15, Title 27: Wild, Scenic & Recreational Rivers	☐ Article 25: Tidal Wetlands	☐ Other _____
☐ 6NYCRR 608: Water Quality Certification	☐ Article 27, Title 7; 6NYCRR 360: Solid Waste Management	

PERMIT ISSUED TO
International Business Machines Corporation

TELEPHONE NUMBER
(914) 894-9273

ADDRESS OF PERMITTEE
Route 52, Hopewell Junction, NY 12533-0999

CONTACT PERSON FOR PERMITTED WORK
Joseph M. Hogan

TELEPHONE NUMBER
(914) 894-9273

NAME AND ADDRESS OF PROJECT/FACILITY
IBM, East Fishkill Facility, Route 52, Hopewell Junction, NY 12533-0999

LOCATION OF PROJECT/FACILITY

COUNTY	TOWN	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Dutchess	East Fishkill	N/A	E: N: 4

DESCRIPTION OF AUTHORIZED ACTIVITY
Operation of a hazardous waste storage facility, located in the Chemical Storage Building (Building 309). There are five rooms in the Chemical Storage Building utilized for container storage of hazardous waste. The rooms are 2, 7, 8, 9 and 23. Room 2 has a total capacity of 1000 drums (55 gal.), Room 7 has a total capacity of 1,352 drums (55/20/5 gal.), Room 8 has a capacity of 388 drums (55 gal.), Room 9 has a capacity of 224 drums (55 gal.) and Room 23 has a capacity of 150 drums (55 gal.).

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

PERMIT ADMINISTRATOR	ADDRESS	
Margaret E. Duke	21 South Putt Corners Rd., New Paltz NY 12561	☞ WRS

AUTHORIZED SIGNATURE	Date	
Margaret E. Duke	9/29/95	Page 1 of 5

IBM.pmt (II)

GENERAL CONDITIONS

Inspections

1. The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3). A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site. Failure to produce a copy of the permit upon request by a Department representative is in violation of this permit.

Permit Changes and Renewals

2. The Department reserves the right to modify, suspend or revoke this permit when:
   a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
   b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
   c) new material information is discovered; or
   d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

3. The permittee must submit a separate written application to the Department for renewal, modification or transfer to this permit. Such application must include any forms, fees or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

4. The permittee must submit a renewal application at least:
   a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
   b) 30 days before expiration of all other permit types.

5. Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Other Legal Obligations of Permittee

6. The permittee has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature and by whomever suffered, arising out of the project described in this permit and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from this project.

7. This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

8. The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required for this project.

SPECIAL CONDITIONS

For Article 27 (Hazardous Waste Management)

1. This permit is based on the assumption that the information submitted in the permit application dated November 8, 1988, modified by various amendments (herein referred to as the application) is complete and accurate and that the facility will be operated as specified in the application. Any inaccuracies or incompleteness found in this information may be grounds for the suspension, revocation or modification of this permit and potential enforcement action. The permittee must inform DEC of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

2. The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including this and any attachments) and the applicable regulations contained in 6NYCRR (parts 370 through 373-2, 376 and 621 and 624)

3. The Permittee must comply with all State Regulations which pertain to the management of Toxicity Characteristic (TC) wastes as specified in Part 371.

4. The Permittee is responsible to verify that the Quality Control/Assurance Program (QA/QC) used by laboratories contracted by the Permittee to carry out analysis of the waste streams conform to the QA/QC procedures approved in this permit and thus, ensure the validity of the analytical data provided by these contract laboratories.

5. Only laboratories which are certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) must be used for analysis performed by outside laboratories.

6. The Permittee must manage the environmental support operations (i.e., waste removal, treatment, storage and off-site disposal) of all IBM tenants during the entire term of the lease.

7. The Permittee is authorized to accept and manage hazardous wastes from on-site and off-site IBM operations, and from on-site non-IBM tenant operations which the Permittee chooses to accept from.

8. The Permittee must have adequate knowledge and control of waste generation/management by all the tenants of the Hudson Valley Research Park in order to maintain regulatory compliance and environmental protection, including the prevention of future groundwater contamination.

SPECIAL CONDITIONS

For Article 27 (Hazardous Waste Management)

9. Site-Wide Groundwater Corrective Action - Modules III and IX of this permit require the Permittee to undertake the site investigation and corrective action required by the Order on Consent dated April 27, 1981, captioned In the Matter of Compliance with Section 27-1313 of the Environmental Conservation Law ("ECL") by: International Business Machines Corporation (IBM). Therefore, as of and on the effective date of this permit, all Permittee's obligations arising under the Order on Consent are terminated and superseded by this permit.

10. The Permittee is responsible for completion of all required hazardous waste manifest documentation including the tenants.

11. The Permittee is responsible for the transportation of all the containerized hazardous waste generated by the Permittee and the tenants from the manufacturing building to the site waste container storage area (Building 309).

12. The containerized wastes must be placed into the appropriate storage room based on the waste characteristics, and the appropriate information must be entered in the Operating Record.

13. The Permittee is responsible for the groundwater remediation programs at the Hudson Valley Research Park.

14. The Permittee is responsible for the submission of a Hazardous Waste Reduction Plan (HWRP), including tenant operations. Each tenant is responsible for implementation of the HWRP for its projects, in accordance with applicable requirements. The Permittee will not be authorized to manage tenant wastes for any tenants which fail to comply with HWRP requirements.

15. The Permittee is responsible for the Annual Hazardous Waste Report identifying IBM, the permittee, as the generator of the hazardous waste (per manifest requirements) for the Hudson Valley Research Park.

16. The Permittee (IBM) is responsible for the appropriate controls at the Hudson Valley Research Park to ensure that the wastes generated by the tenants are properly characterized, managed, and disposed.

SPECIAL CONDITIONS

For Article 27 (Hazardous Waste Management)

17. The Permittee must operate the facility in strict accordance with modules, appendices and attachments to this permit as specified below:

Module I	Standard Conditions
Module II	General Facility Conditions
Module III	Corrective Action Requirements
Module IV	Waste Reduction Requirements
Module V	Land Disposal Restrictions
Module VI	Storage in Containers
Module IX	General Groundwater Monitoring Report
Attachment I	Waste Analysis Plan
Attachment II	Inspection Schedule
Attachment III	Personnel Training
Attachment IV	Preparedness and Prevention
Attachment V	Contingency Plan
Attachment VI	Closure Plan
Attachment VII	Container Management
Attachment VIII	Solid Waste Management Unit Inventory

IBM EAST FISHKILL FACILITY

PART 373 PERMIT DOCUMENT
FOR OPERATION OF A HAZARDOUS WASTE MANAGEMENT FACILITY

TABLE OF CONTENTS

MODULE I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any attachments) and the applicable regulations contained in 6 NYCRR Parts 370 through 374, 376, 621 and 624. Applicable regulations are those which are in effect on the date of issuance of this permit.

The Permittee is allowed to store hazardous waste in accordance with the conditions of this permit. Any storage, treatment, or disposal of hazardous waste not authorized in this permit is prohibited unless exempt from 6 NYCRR Part 373. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any other law providing for protection of public health or the environment.

B. PERMIT ACTIONS

This permit may be modified, revoked, or suspended for cause as specified in 6 NYCRR 621.14. The filing of a request for a permit modification, revocation and reissuance, or suspension; or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

D. DUTIES AND REQUIREMENTS

(1) Duty to Comply. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the ECL Article 27, Title 9 and is grounds for enforcement action; for permit termination, revocation, and reissuance, or modification; or for denial of a permit renewal application.

(2) Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this Permit, the permittee must apply for and obtain a new permit.

(3) Need to Halt or Reduce Activity Not a Defense. It will not be a defence for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to Mitigate. In the event of noncompliance with the permit, the permittee must take all reasonable steps to minimize releases to the environment, and must carry out such measurements as are reasonable to prevent significant adverse impacts on human health and the environment.

(5) Proper Operation and Maintenance. The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operation staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

(6) Duty to Provide Information. The Permittee must furnish to the commissioner, with a reasonable time, any relevant information which the commissioner may request to determine whether cause exists for modifying, suspending, or revoking this permit, or to determine compliance with this permit. The permittee must also furnish to the commissioner, upon request, copies of records required required to be kept by this permit.

(7) Inspection and Entry. The Permittee must allow the Commissioner, or an authorized representative, upon the presentation of identification, to:

(a) Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the ECL, any substances or parameters at any location.

(8) Monitoring and Records.

(i) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The methods used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix 19 and Appendix 35 of 6 NYCRR Part 371 and 376 respectively or an equivalent method approved by the Commissioner. Laboratory Methods must be those specified in Test Methods for Evaluating Solid Waste: Physical & Chemical Methods, EPA Publication SW-846, Third Edition, First Update 1990 or later

approved revisions, or an equivalent method, as specified in the Waste Analysis Plan (see Attachment I).

(ii) The Permittee must retain records of all monitoring information, including all calibration and maintenance records and all original chart recordings for continuous monitoring instrumenta tion, copies of all reports and records required by this permit, the certification required by 6 NYCRR Part 373-2.5(c)(2)(ix) of this Part, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extented by request of the commissioner at any time. The permittee must maintain records of all ground water surface elevations, for the active life of the facility, and for the post-closure care period as well.

(iii) Records of monitoring information must include:

(a) the date, exact place, and times of sampling or measurements;

(b) the name(s) of the individual(s) who performed the sampling or measurements;

(c) the date(s) analyses were performed;

(d) the name(s) of the individual(s) who performed the analyses;

(e) the analytical techniques or methods used; and

(f) the results of such analyses.

(iv) The Permittee shall conduct a quality assurance program to ensure that the monitoring data are technically accurate and statistically valid. The quality assurance program shall be in accordance with Chapter One and applicable subsections of Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods, EPA Publication SW-

846, Third Edition, First Update, 1990 or later approved revisions, or equivalent methods approved by the Department.

(9) Signatory Requirements. All applications, reports, or information submitted to the commissioner must be signed and certified(see section 373-1.4(a)(5) of this subpart).

(10) Reporting requirements.

(i) Planned changes. The Permittee must give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility.

(ii) Anticipated non-compliance. The permittee must give advance notice to the commissioner of any planned changes in the permitted facility or activity which may result in non-compliance with permit requirements.

(iii) Transfers. This permit is not transferable to any person except after notice to the commissioner. The commissioner may required modification or suspension of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under subdivision 373-1.7(a).

(iv) Monitoring reports. Monitoring results must be reported at the intervals specified in Module III.

(v) Compliance schedules. Reports of compliance or non-compliance with or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

(vi) Twenty-four hour reporting.

(a) The permittee must orally report any noncompliance that may endanger health or the environment within 24 hours from the time the permittee becomes aware of the cicumstances,

including:

(1) information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies; and

(2) any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(b) The description of the occurrence and its cause must include:

(1) names, address, and telephone number of the operator;

(2) name, address, and telephone number of the facility;

(3) date, time and type of incident;

(4) name (chemical and common) and quantity of material(s) involved;

(5) the extent of injuries, if any;

(6) an asessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(7) estimated quantity and disposition of recovered material that resulted from the incident.

(c) A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to

reduce, eliminate, and prevent reoccurrence of the noncompliance. The commissioner may waive the five day written notice requirement in favor of a written report within fifteen days.

(vii) Manifest discrepancy report. If a significant discrepancy in a manifest received by the permittee is discovered, the permittee must attempt to reconcile the discrepancy with the generator or transporter. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the commissioner.

(viii) Unmanifested waste report: This report must be submitted to the commmissioner within 15 days of receipt of unmanifested waste.

(ix) Annual report: An annual report must be submitted covering facility activities during the calendar year.

(x) Other noncompliance. The permittee shall report all instances of noncompliance not reported under subparagraphs (iv), (v) and (vi) of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (vi).

(xi) Other information. Where the permittee becomes aware that any relevant facts were omitted in apermit application, or incorrect information was submitted in a permit application or in any reports to the commissioner, the permittee must promptly submit the correct facts or information.

(xii) Immediate Reporting of Releases.

(1) Whenever there is an imminent or actual emergency situation, the emergency coordinator as designated in the contingency plan (or a designee when the emergency coordinator is on call) must immediately:

(a) Activate internal facility alarms or communication systems, where applicable, to

notify all facility personnel; and
(b) Notify appropiate State or local agencies with designated response roles if their help is needed

(2) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, the coordinator must report the findings as follows:

(a) If the coordinator's assessment (or the designee's) indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropiate local authorities. The coordinator must be available to help appropiate officials decide whether local areas should be evacuated; and

(b) The coordinator (or the designee) must immediately notify either the government official designated as the on-scene coordinator for that geographical area in the applicable regional contingency plan or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(1) Name and telephone number of reporter;

(2) Name and address of facility;

(3) Time and type of incident (e.g.,release, fire);

(4) Name and quantity of material(s) involved, to the extent known;

(5) The extent of injuries, if any; and

(6) The possible hazards to

human health, or the environment, outside the facility.

E. CONFIDENTIAL INFORMATION

The permittee may claim confidential any information required to be submitted by this permit in accordance with 6 NYCRR 370.1(b). All documentation which the Permittee believes justifies its claim of confidentiality must be submitted in accordance with 6 NYCRR Part 616 with any such claim of confidentiality.

F. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, a copy of this permit and the following documents:

(1) Waste Analysis Plan as required by 6 NYCRR 373-2.2(e)(2);

(2) Personnel training documents and records as required by 6 NYCRR 373-2.2(h)(5);

(3) Contingency plan as required by 6 NYCRR 373-2.4(d);

(4) Closure plan as required by 6 NYCRR 373-2.7(c);

(5) Financial Assurance as required by 6NYCRR 373-2.8;

(6) Operating record as required by 6 NYCRR 373-2.5(c);

(7) Inspection schedules as required by 6 NYCRR 373-2.2(g)(2);

(8) Groundwater monitoring, testing and analytical data as required by 6 NYCRR 373-2.6.

G. PERMIT MODIFICATIONS

The permit may be modified for cause as allowed under 6 NYCRR 373-1.7 and 621.14. Modifications shall be requested in writing as required by 6 NYCRR 621.13 and 621.14. Requests for modifications shall be submitted to the Regional Permit Administrator for approval and permit modification.

H. ALL REPORTS AND SUBMITTALS

(1) (a) All reports and submittals required by Module III, Corrective Action Requirements to be submitted to the Commissioner shall be sent to the following addressees:

- New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7252

Attention: Director, Bureau of Hazardous Compliance and Land Management
Division of Solid & Hazardous Materials

- New York State Department of Environmental Conservation
Region 3
21 S. Putt Corners Rd.
New Paltz, NY 12561-1696

Attention: Regional Hazardous Substances Engineer

(b) All reports and submittals required by Module IV, Waste Reduction Requirements to be submitted to the Commissioner shall be sent to the following addressees:

Two (2) copies to:

- New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7252

Attention: Director, Bureau of Pollution Prevention
Division of Pollution Prevention & Waste Reduction

One (1) copy to:

- New York State Department of Environmental Conservation
Region 3
21 S. Putt Corners Rd.
New Paltz, NY 12561-1696

Attention: Regional Hazardous Substances Engineer

(c) All other reports and submittals required by the

permit to be submitted to the Commissioner that do not have an address for submittal specified shall be sent to the following addressees:

- New York State Department of Environmental Conservation
  50 Wolf Road
  Albany, New York 12233-7252

Attention: Director, Bureau of Material Storage, Combustion & Regulation

Division of Solid & Hazardous Materials

- New York State Department of Environmental Conservation
  Region 3
  21 S. Putt Corners Rd.
  New Paltz, NY 12561-1696

Attention: Regional Hazardous Substances Engineer

(2) All plans, reports, and schedules required by the terms of this Permit are, upon approval by the Department, incorporated by reference into this Permit. Upon incorporation, the provisions of each such document shall be binding upon Permittee and have the same legal force and effect as the requirements of this Permit.

(3) Permittee shall submit plans and reports required by this Permit to the Department for review and comment. If the Department determines that any plan or report required by this Permit is deficient (in whole or in part), Permittee shall either promptly respond to the comments or make revisions to the submission consistent with the Department's comments. Within a reasonable time frame specified by the Department, a final plan or report shall be submitted to the Department for approval. Extensions of the due date for submittals may be granted by the Department based on the Permittee's documentation that sufficient justification for the extensions exists.

I. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in 6 NYCRR 370 through 374 and 376, unless this permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary

reference or the generally accepted scientific or industrial meaning of the term.

(1) Action Levels. For purposes of this Permit action levels are hazardous constituent concentrations that are protective of human health or the environment. Where available, action levels are based on appropriate promulgated standards established for a specific environmental medium. When such promulgated standards are not available, action levels are media specific, hazardous constituent concentrations derived from non-promulgated human health-based levels or environmental health-based levels. The latter levels being protective of aquatic life or wildlife. An action level may be set at the background level for a hazardous constituent for which data are inadequate to set a human health or environmental health-based level.

(2) Areas of Concern (AOC). Pursuant to the authority granted by 6 NYCRR 373-1.6(c)(2), an area of concern has been defined for purposes of this Permit to mean an area at the facility, or an off-site area, which is not at this time known to be a solid waste management unit (SWMU), where hazardous waste and/or hazardous constituents are present, or are suspected to be present as a result of a release from the facility. The term shall include areas of potential or suspected contamination as well as actual contamination. Such area(s) may require study and a determination of what, if any, Corrective Action may be necessary. All permit references to and conditions for SWMUs shall apply to areas of concern.

(3) Commissioner. For purposes of this Permit "Commissioner" shall mean the Commissioner of the New York State Department of Environmental Conservation (Department), his designee or authorized representative.

(4) Environment. Pursuant to ECL Article 27, Title 9, Section 27.0901, environment means any water, water vapor, any land including land surface or subsurface, air, fish, wildlife, biota and all the natural resources.

(5) Facility. means:

(i) all contiguous land, and structures, other

appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them).

(ii) for the purpose of implementing corrective action under Part 373-2.6(1), all contiguous property under the control of the owner or operator seeking a permit under subtitle C of RCRA or Article 27, Title 9 of the ECL. This definition also applies to facilities implementing corrective action under Subpart 373-2 or RCRA section 3008(h).
6 NYCRR Part 373 permit.

(6) Hazardous Constituent means a constituent that caused the commissioner ti list the hazardous waste in section 371.4 of this Title, or a constituent listed in section 371.3(e).

(7) Hazardous Waste. Pursuant to ECL Article 27, Title 9, Section 27.0901, hazardous waste means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

(8) Release. For purposes of this Permit release includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of any hazardous waste, including hazardous constituents, unless expressly authorized under the terms of this Permit or otherwise permitted under law (e.g., SPDES permitted discharges).

(9) Solid Waste Management Unit (SWMU). For purposes of this permit includes any discernible waste management unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes as those terms are defined in 6 NYCRR Part 371 and 6 NYCRR Part 373-2. These units include, but are not limited to: landfills, surface impoundments, waste piles, land treatment units, tanks, elementary neutralization units, transfer

stations, container storage areas, incinerators, injection wells, recycling units, and closed and abandoned units. Certain areas associated with production processes which have become contaminated as a result of routine and systematic releases of wastes or hazardous constituents from wastes, are also considered SWMU's.

MODULE II - GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The Permittee is authorized to **store** for more than 90 days only the hazardous wastes identified in **Attachment VII,** which are generated at the Permittee's facility. The acceptance of hazardous waste generated off-site from non-IBM operations is prohibited without prior **written** approval from the Commissioner in the form of a permit which authorizes such activity.

B. REQUIRED NOTICES

(1) The owner or operator of a facility that receives hazardous waste from an off-site source, (except where the owner or operator is also the generator) must inform the generator in writing that he or she has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.[(6NYCRR 373-2.2(d)(2)].

C. GENERAL WASTE ANALYSIS

Except as specifically provided otherwise in Module III of this permit, the Permittee shall comply with 373-2.2(e), follow the procedures described in the waste analysis plan, **Attachment I**, and conduct a quality assurance program as specified in Module I, Condition D.(8)(iv).
The Permittee shall verify its waste analysis as part of the quality assurance program. The quality assurance program will be in accordance with current EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Third Edition, First Update 1990 or later approved revisions) or equivalent methods approved by the Department, and ensure that the Permittee maintains proper functional instruments, uses approved sampling and analytical methods, as specified in 6NYCRR Part 371, Appendices 19, 20 and 21, and 6 NYCRR Part 376 Appendix 35, assures the validity of sampling and analytical procedures and performs correct calculations. As required by ECL Article 3-0119, any laboratory (permittee or contract laboratory) used by the Permittee to perform analysis pursuant to this permit must be certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the Permittee uses a

contract laboratory to perform analysis required by this permit, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this permit.

D. SECURITY

Access to the East Fishkill site is potentially available through seven gates located along Route 52 and Lime Kiln Road. The gates are opened/closed in accordance with schedules established and revised by Site Security. When gates are closed, employees may enter using magnetic identification badges. Gates 1 and 5 are monitored by an electronic surveillance system.

E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall comply with 373-2.2(g) and follow the inspection schedule, Attachment II. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 6NYCRR 373-2.2(g)(3). Records of inspections shall be kept as required by 6NYCRR 373-2.2(g)(4).

F. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 6NYCRR 373-2.2(h)(1), (2), and (3). This training program shall follow the attached outline, Attachment III. The Permittee shall maintain training documents and records as required by 6NYCRR 373-2.2(h)(4) and (5).

G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste as required by 6NYCRR 373-2.2(i) and as described in Attachment IV.

H. PREPAREDNESS AND PREVENTION

(1) Required Equipment. At a minimum, the Permittee shall equip the facility with the equipment set forth in the contingency plan, Attachment V and as required by 6NYCRR 373-2.3(c).

(2) Testing and Maintenance of Equipment. The Permittee shall test and maintain the equipment specified in the above permit condition as necessary to assure its proper

operation in time of emergency, as set forth in the Inspection Schedule (**Attachment II**) and as required by 6NYCRR 373-2.3(d).

(3) Access to Communications or Alarm System. The Permittee shall maintain access to the communications or alarm system as required by 6NYCRR 373-2.3(e), and in accordance with **Attachment V.**

(4) Required Aisle Space. At a minimum, the Permittee shall, in accordance with **Attachment V,** maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility in an emergency as required by 6NYCRR 373-2.3(f) and to provide access for inspections as required by 6NYCRR 373-2.9(e). Aisle space in the container storage area shall be maintained in accordance with **Attachment V.**

(5) Arrangements with Local Authorities. The Permittee shall attempt to make arrangements with State and local authorities as required by 6NYCRR 373-2.3(g). If State or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record, and a copy of all correspondence sent to State and local authorities while attempting to meet this requirement should be included in the operating record.

I. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

(1) Implementation of Plan. The Permittee shall comply with 6NYCRR 373-2.4 and follow the contingency plan, **Attachment V.** The Permittee shall immediately carry out the provisions of the contingency plan, **Attachment V,** and follow the emergency procedures described by 6NYCRR 373-2.4(g) whenever there is a fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment.

(2) After any event requiring implementation of the contingency plan, the Permittee shall not resume hazardous waste management in the affected area until all equipment used during the contingency has been cleaned, recharged or replaced, as appropriate.

(3) Copies of Plan. The Permittee shall comply with the requirements of 6NYCRR 373-2.4(d).

(4) Amendments to Plan. The Permittee shall review and

immediately amend, if necessary, the contingency plan as required by 6NYCRR 373-2.4(e).

(5) Emergency Coordinator. The Permittee shall comply with the requirements of 6NYCRR 373-2.4(f) concerning the emergency coordinator.

J. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of 6NYCRR Part 372.

K. RECORD KEEPING AND REPORTING

(1) Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with the applicable portions of 6NYCRR 373-2.5(c).

(2) Availability, Retention, and Disposition of Records. All records, including plans, must be made available to the DEC in accordance with 6NYCRR 373-2.5(d)(1). The retention period for all records is extended automatically during any unresolved enforcement action regarding the facility or as requested by the Commissioner. A copy of records of waste disposal locations and quantities under 6NYCRR 373-2.5(c)(2) must be submitted to the Commissioner and local land authority upon closure of the facility as required by 6NYCRR 373-2.5(d)(3). See Module I, Condition D.8(ii).

(3) Annual Report. See Permit Condition D(10)(ix) of Module I.

L. CLOSURE

(1) Performance Standard. The Permittee shall close the facility as required by 6NYCRR 373-2.7(b) and in accordance with the closure plan, **Attachment VI.**

(2) Amendment to Closure Plan. The Permittee shall amend the closure plan whenever necessary in accordance with 6NYCRR 373-2.7(c)(3).

(3) Notification of Closure and Partial Closure. The Permittee shall notify the Commissioner at least 60 days prior to the date he expects to begin closure or partial closure of any hazardous waste management unit or facility, as required by 6NYCRR 373-2.7(c)(4)(i).

(4) Time Allowed for Closure. Within 90 days after receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all

hazardous waste and shall complete closure activities in accordance with 6NYCRR 373-2.7(d) and the schedule specified in the closure plan, Attachment **VI.**

(5) Disposal or Decontamination of Equipment, Structures and Soils. During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in 6NYCRR 373-2.10(h), 373-2.11(f), 373-2.12(h), 373-2.13(h), or 373-2.14(g). By removing any hazardous waste or hazardous constituents during partial and final closure, the Permittee may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of 6NYCRR Part 372.

(6) Certification of Closure and Partial Closure. Within 60 days of completion of final closure of the facility or within 60 days of partial closure of any hazardous waste management unit, the Permittee shall submit to the Commissioner certifications by the Permittee and by an independent New York State registered professional engineer that the facility (or the hazardous waste management unit) has been closed in accordance with the specifications in the approved closure plan as required by 6NYCRR 373-2.7(f).

M. COST ESTIMATE FOR FACILITY CLOSURE

The Permittee's most recent closure cost estimate, prepared in accordance with 6NYCRR 373-2.8(c)(1) and (e)(1) is specified in **Attachments VI.**

(1) The Permittee must adjust the closure cost estimate for inflation within 30 days after the closure of the firm's fiscal year and before submission of updated information to the Commissioner, as specified in 6NYCRR 373-2.8(d)(5).

(2) The Permittee must revise the closure cost estimate whenever there is a change in the facility's closure plans as required by 6NYCRR 373-2.8(c)(3).

(3) The Permittee must keep at the facility the latest closure cost estimate as required by 6NYCRR 373-2.8(c)(4).

N. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittee shall demonstrate continuous compliance with 6NYCRR 373-2.8(d) or, when applicable, with 6NYCRR 373-2.8(f)

or (g) by providing documentation of financial assurance to the Commissioner, in accordance with the wording in 6NYCRR 373-2.8(j), in at least the amount of the cost estimates required by Module II, Condition O. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6NYCRR 373-2.8(d) and 373-2.8(f).

O. LIABILITY REQUIREMENTS

The Permittee shall demonstrate continuous compliance with the requirements of 6NYCRR 373-2.8(h) and the documentation requirements of 6NYCRR 373-2.8(j), including requirements to have and maintain liability coverage for sudden and accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs, by providing documentation of the liability mechanisms to the Commissioner.

P. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with 6NYCRR 373-2.8(i) whenever necessary.

MODULE III - CORRECTIVE ACTION REQUIREMENTS
FOR SOLID WASTE MANAGEMENT UNITS AND
AREAS OF CONCERN

A. APPLICABILITY

1. Statute and Regulations. Article 27, Title 9, Section 27-0913, and 6NYCRR 373-2.6(l) requires corrective action, including Corrective Action beyond the facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit ("SWMU") at a storage, treatment or disposal facility seeking a 6NYCRR Part 373 permit, regardless of the time at which waste was placed in such unit. Pursuant to 6NYCRR 373-1.6(c)(2) the Commissioner may impose permit conditions as the Commissioner determines necessary to protect human health and the environment (i.e., Areas of Concern (AOC(s))).

2. Summary of Corrective Action Process. Corrective action implementation authorized by 6NYCRR 373-2.6 includes: (a) the RCRA Facility Assessment ("RFA"); (b) the RCRA Facility Investigation ("RFI"); and (c) Corrective Measures ("CM"). The RFA is a three phase process that includes: a Preliminary Review ("PR"); a Visual Site Inspection ("VSI"); and a Sampling Visit ("SV"). The PR is a review of all available information on the individual SWMU(s) and AOC(s). During the PR, and in subsequent phases of the RFA, all of the media (i.e., soil, groundwater, surface water/sediment, air and subsurface gas) that could potentially be impacted by release(s) of hazardous waste, including hazardous constituents, are evaluated. Based on this evaluation, the SWMU(s)/AOC(s) will be characterized as to release potentials.

   Following the PR, a VSI is conducted during which all of the SWMU(s)/AOC(s) either previously or newly discovered, are observed. While performing this reconnaissance, any signs of spills or leakage, stained soil, stressed vegetation, unit deterioration, or any other conditions that may be indicative of a release are assessed. By means of these observations and the findings of the PR, the Commissioner may require the facility to conduct a

Sampling Visit (SV) at the unit(s)/area(s) where the release(s) would be suspected.

The SV can involve any or all of the previously described media at any given SWMU and or Area of Concern (AOC). For those units/areas where releases are clearly demonstrated in the PR and/or VSI, the SV can be avoided leaving the unit(s)/area(s) to be addressed in the RFI.

The RFA includes preparing the RFA report. This report includes the findings of the various RFA activities and recommendations for further action at those units and areas with demonstrated releases of hazardous wastes, including hazardous constituents. In some cases, where an immediate threat to human health or the environment exists, interim corrective measures may be required.

If the RFA concludes that there is a need for further investigative work the Permittee shall be required to pursue phase two of corrective action, an RFI. The purpose of the RFI is to determine the nature, extent, direction and rate of migration of hazardous wastes, including hazardous constituents, in soils, groundwater, surface water/sediment, subsurface gas and/or air. From these multimedia analyses, the types and concentrations of contaminants present, the boundaries of any contamination (e.g., plumes), and the rate and direction of contaminant movement should be determined in each of the impacted media. Sufficient data shall be generated during the RFI to allow proper assessment of corrective measure alternatives. This may require bench and/or pilot studies to be implemented as part of the RFI. Once all analyses are reviewed, a RFI report is prepared that provides a summation of the data and recommendations for any needed corrective measures.

The culmination of the Corrective Action Program is Corrective Measures ("CM"). The initial stage of the corrective measures phase is the preparation of a Corrective Measures Study ("CMS"). A CMS may be required if concentrations of hazardous constituents in an aquifer, in surface water/sediment, in soils, or in air exceed their corresponding action levels. Such a study may also be required if individual concentrations of hazardous constituents are at or below their action levels, but they

still may pose a threat to human health or the environment due to site-specific exposure conditions. The CMS will address alternative corrective measure strategies that are technologically feasible and reliable and which effectively mitigate and minimize damage to, and provides adequate protection of human health and the environment. The Permittee will develop the site-specific CMS using target clean-up levels chosen by the Commissioner to be protective of human health and the environment. Where available, they may be promulgated standards. Where promulgated standards are not available, the Commissioner may use health-based levels, based on Risk-Specific Doses ("RSD") for carcinogens and Reference Doses ("RFD") for systemic toxicants, or concentration levels protective of the environment, that have undergone scientific review. The CMS report should discuss the alternative corrective measure strategies studied, addressing technical, institutional, public health, and environmental issues, and develop the conceptual engineering for the alternative action proposed by the facility. The CMS may not require extensive evaluation of a number of remedial alternatives where a solution is straight forward or only few solutions exist. Such situations could require the Permittee to submit a highly focused CMS.

Following completion of the CMS, the Commissioner will select the corrective measure(s) from the corrective measure alternatives evaluated in the CMS. The Commissioner will then initiate a permit modification for the selected corrective measure(s). Subsequent to the permit modification, the owner or operator of the facility will be required to demonstrate financial assurance for completing the approved corrective measure(s).

Permit modification for the approved corrective measure(s) will initiate the final stage of corrective measures, Corrective Measures Implementation ("CMI"). The CMI will address the final design, construction, operation, maintenance, and monitoring of the corrective measure or measures selected.

3. Solid Waste Management Units and Areas of Concern. The conditions of this Module apply to:

(a) All the SWMUs and AOCs listed in this Module

individually or in combinations;

(b) Any additional SWMU(s) and AOCs identified during the course of groundwater monitoring, field investigations, environmental audits or other means as described in Module Condition C. below; and

(c) The following known SWMUs and AOCs located on-site and/or off-site:

TABLE III-1
SWMU(s)/AOC(s)

SWMU TYPE	SWMUs	LOCATION*
TRANSFER STATIONS and CONTAINER STORAGE AREAS	1. BUILDING 309	B/309
	2. TANK TRAILER STORAGE AREA	TS AREA B/303W
TRANSFER STATIONS and CONTAINER STORAGE AREAS	3. SLUDGE DUMPSTER BAY AREA	B/386, B690
	4.Inactive SLUDGE DUMPSTER BAY AREA (CLOSED)	B/385
	5. SLUDGE DUMPSTER STORAGE AREA	B/386
	6. Inactive SLUDGE DUMPSTER STORAGE AREA (CLOSED)	B/385
	7. TANK TRUCK LOADING/UNLOADING AREAS	B/309, B/300, B/330C, B/330D, B/325, B/322, B/320B, B/334, B/335, B/650, B/690
	8. CONTAINER WASTE LOADING/UNLOADING AREAS	B/300, B/322, B/330C, B/330D, B/330F, B/334, B/316, B/315, B/338, B/630, B/640, B/650, B690
	9. Inactive CONTAINER WASTE LOADING/UNLOADING AREAS	B/320B, B323
SURFACE IMPOUNDMENTS	10. SANITARY/TREATED IND. WASTEWATER LAGOONS	B/325
	11.Inactive SILICON SLURRY LAGOON	Area B
WASTE RECYCLING UNITS	12. PERCHLOROETHYLENE RECYCLING/RECOVERY PLANT	B/335
WASTEWATER TREATMENT UNITS	13. INDUSTRIAL WASTEWATER NEUTRALIZATION TREATMENT PLANT	B/312, B/690
	14. WATER POLLUTION CONTROL PLANT (SANITARY)	B/325
	15. FLUORIDE/HEAVY METALS WASTEWATER TREATMENT PLANTS	B/386, B/690
	16. Inactive FLUORIDE/HEAVY METALS WASTEWATER TREATMENT PLANT	B/385
STORAGE/TREATMENT TANKS	17. STORAGE/TREATMENT TANKS	B/300, B/303, B/309, B/312, B/315, B/322, B/323, B/325, B/335, B/334, B/690, B/323, B/338, B/385, B/384, B/386, B/330D, B/316, B/330C, B/330G, B/310, B/327, B/640, B/344, B/650, B/310A
LANDFILLS	18. HAZARDOUS WASTE LANDFILL (LF #1) (CLOSED AND REMOVED)	B/330C E
	19. CONSTRUCTION DEBRIS LANDFILL (LF #2) (CLOSED AND REMOVED)	B/334 E

TABLE III-1
SWMU(s)/AOC(s)

SEWERS HAVING HANDLED HAZARDOUS WASTE OR HAZARDOUS CONSTITUENTS	20. Inactive SOLVENT WASTE (BELOW GROUND)	B/300, B/309, B/310, B/330C, B/320, B/330D
SEWERS HAVING HANDLED HAZARDOUS WASTE OR HAZARDOUS CONSTITUENTS	21. SOLVENT WASTE (ABOVE GROUND)	B/310, B/322, B/330C, B/330D, B/334, B/650
	22. Inactive SOLVENT WASTE (ABOVE GROUND)	B/323, B/320B
	23. FLUORIDE/HEAVY METALS WASTEWATER Transfer Systems Outside Manufacturing Buildings (BELOW GROUND)	B/330D, B/300, B/310, B/322, B/312 Transfer Sation
	24.Inactive FLUORIDE/HEAVY METALS WASTEWATER (BELOW GROUND)	B/310, B/320B, B/330C, B/330D
	25. FLUORIDE/HEAVY METALS WASTEWATER (ABOVE GROUND)	B/322, B/334, B/310, B/650
	26. Inactive FLUORIDE/HEAVY METALS WASTEWATER (ABOVE GROUND)	B/323, B/320B
	27. INDUSTRIAL WASTEWATER (BELOW GROUND)	B/330C, B/330D, B/320, B/300, B/310, B/308, IW TRANSFER SYSTEMS SITE-WIDE
	28. Inactive INDUSTRIAL WASTEWATER (BELOW GROUND)	B/310, B/320B/ B/330C, B/330D
	29. INDUSTRIAL WASTEWATER (ABOVE GROUND)	B322, B/330C, B/310, B/300, B/334, B630, B/640, B/650
	30. Inactive INDUSTRIAL WASTEWATER (ABOVE GROUND)	B/323, B/320B
	31. PCE WASTE	B/335
	32. MIXED SOLVENTS, IPA, NMP, NBA WASTE	B/303
AOC TYPE	AOCs[f]	
	1. Area of Concern A (Area A)[b]	
	2. Area of Concern B (FIRE BRIGADE TRAINING #1 and LEACHFIELD)	
	3. Area of Concern C (LANDFILLS AND B/330)[c]	
	4. Area of Concern D (FIRE BRIGADE TRAINING #2)[d]	
	5. SEQ[e] (CONTRACTOR STAGING AREA)	
	6. Area of Concern E (Building 322)	

Notes:
a - see Appendix III-G for the Facility Map
b - Area A is located in the northeast portion of the East Complex and underlies all or parts of Buildings 303, 308, 309, 310, 316, 384, 385 and 386.
c - Area C is located between the 330 buildings and the Contractor Staging Area.
d - This area is located in the northwest part of the East Complex and underlies the sanitary wastewater treatment facility adjacent to Building 325.
e - SEQ: Southeast Quadrant
f - The deep bedrock aquifer is considered also an area of concern

B. **STANDARD CONDITIONS FOR CORRECTIVE ACTION**

1. Work Plans. All work plans submitted pursuant to this Module shall include:

   (a) Quality Assurance/Quality Control protocols to ensure that data generated is valid and supported by documented procedures;

   (b) Other plans, specifications and protocols, as applicable;

   (c) A schedule for starting specific tasks, completing the work and submitting progress and final reports; and

   (d) Plans for the treatment, storage, discharge or disposal of wastes to be generated by activities described therein.

2. Quality Assurance/Quality Control

   (a) Any laboratory to be used pursuant to such work plans required by this Module must be approved by the Commissioner prior to work plan implementation. Certification by the New York State Department of Health Environmental Laboratory Approval Program in the relevant analytical services is required.

   (b) The minimum Quality Assurance/Quality Control data and information, that shall be delivered with all sample analyses required by this Module, are tabulated in Appendix III-A of this Permit Module.

3. Health/Safety Plans. The Permittee shall develop, according to applicable Federal, State and local requirements, and submit to the Commissioner, health and safety plans that will be implemented to ensure that the health and safety of project personnel, plant personnel and the general public are protected. These plans are not subject to approval by the Commissioner.

4. Guidance Documents. When preparing the submissions described in this Permit Module, the Permittee shall take account of applicable guidance documents issued by the

U.S. Environmental Protection Agency and the New York State Department of Environmental Conservation in a manner reflecting reasonable technical considerations.

5. Prior Submittals. The Permittee may have already submitted portions of information, plans, or reports required by this Permit Module and its Appendices to the Commissioner pursuant to the terms of previous applications, consent orders, or plans. For those items the Permittee contends were submitted to the Commissioner, the Permittee may cite the specific document(s) and page(s) it believes adequately addresses each of the individual items requested by this Permit Module and its Appendices. The references, by document(s) and page(s), shall be placed in the appropriate sections of the submittals that require the referenced information and data. If the Commissioner, after a file search, determines that it does not possess any of the referenced information, plans, or reports that the Permittee claims were previously submitted, the Commissioner will notify the Permittee and the Permittee shall submit the referenced documents within the time frame specified within the notification.

6. Compliance Schedule For Interim Corrective Measures.

   (a) If at any time it is determined by the Commissioner that a release or, based on site-specific circumstances, a threatened release of hazardous wastes, including hazardous constituents from a SWMU, a combination of SWMUs, or an AOC poses a significant and immediate threat to human health or the environment, or that such condition jeopardizes the Permittee's ability to comply with any governmental permit, a draft interim corrective measures study shall be submitted to the Commissioner for approval within thirty (30) calendar days of notice of such a determination. This study shall consider, among other relevant factors, the character, the extent, direction, the rate of release, the proximity to population, the exposure pathways, the effects of delayed action, and the evaluations of appropriate interim corrective measures. Upon approval of the study by the Commissioner, the Permittee shall implement the

required interim corrective measures as specified by the Commissioner. Nothing herein shall preclude the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Commissioner. Releases from hazardous waste treatment, storage, and disposal (TSD) units subject to regulation by this Permit shall be initially addressed by the procedures contained in the Permittee's approval Contingency, Preparedness and Prevention Plan appended to this Permit. Should the release and the environmental media affected by the release not be adequately addressed by the procedures stipulated in those approved plans, then remediation shall be pursued in accordance with this Permit Module Condition.

(b) In the event the Permittee discovers, a release or, based on site-specific circumstances, a threatened release of hazardous waste, including hazardous constituents, from a SWMU and/or AOC, or a combination of SWMUs and/or AOC, that poses a significant and immediate threat to human health or the environment, the Permittee shall identify interim corrective measures to mitigate this threat. The Permittee shall immediately summarize the nature and magnitude of the actual or potential threat and nature of the interim measures being considered and notify the Commissioner. Within thirty (30) calendar days of notifying the Commissioner, the Permittee shall submit to the Commissioner, for approval, an interim corrective measures work plan for the interim measures. The Permittee shall implement the measures specified by the Commissioner. Nothing herein shall preclude the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Commissioner. Releases from hazardous waste treatment, storage, and disposal (TSD) units subject to regulation by this Permit shall be initially addressed by the procedures contained in the Permittee's approved Contingency, Preparedness and Prevention Plan appended to this Permit. Should the release and the environmental media affected by the release not be adequately addressed by the procedures stipulated in those approved plans, then

remediation shall be pursued in accordance with this Permit Module Condition.

(c) The following factors may be considered by the Commissioner or the Permittee in determining the need for interim corrective measures:

(i) Time required to develop and implement a final corrective measure;

(ii) Actual and potential exposure of human and environmental receptors;

(iii) Actual and potential contamination of drinking water supplies and sensitive ecosystems;

(iv) The potential for further degradation of any impacted medium;

(v) Presence of hazardous waste, including hazardous constituents, in containers that may pose a threat of release;

(vi) Presence and concentration of hazardous waste, including hazardous constituents, in soils that have the potential to migrate to groundwater or surface water;

(vii) Weather conditions that may affect the current levels of contamination;

(viii) Risks of fire, explosion, or potential for exposure to hazardous wastes, including hazardous constituents, as a result of an accident or failure of container or handling system; and

(ix) Other situations that may pose threats to human health and the environment.

7. Determination of No Further Action.

(a) Based on the results of an RFI for a particular SWMU, or combination of SWMUs, and/or AOC, and other relevant information, the Permittee may submit an

application to the Commissioner for a permit modification under 6NYCRR 373-1.7(b) and 621.13 to terminate the subsequent corrective action requirements of this Module. This permit modification application must contain information demonstrating no release(s) of hazardous wastes, including hazardous constituents, from the SWMU(s) and/or AOC(s) that pose a threat to human health or the environment, as well as information required in 6NYCRR 373-1 and 621.4(n), which incorporates by reference 6NYCRR 373-1 and 373-2.

If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during the forty-five (45) calendar day public comment period required for permit modifications, the Commissioner determines that the release(s) or the suspected release(s) investigated either are non-existent or do not pose a threat to human health or the environment, the Commissioner may grant the requested modification.

(b) A determination of no further action shall not preclude the Commissioner from implementing the following actions:

(i) Modifying this Permit at a later date to require the Permittee to perform such investigations as necessary to comply with the requirements of this Permit Module and its Appendices if new information or subsequent analysis indicates that there are, or are likely to be, releases from SWMUs/AOCs that may pose a threat to human health or the environment; and

(ii) Requiring continual or periodic monitoring of air, soil, groundwater, or surface water/sediment or subsurface gas, if necessary, to protect human health and the environment, when site-specific circumstances indicate the release(s) of hazardous waste, including hazardous constituents, are likely to occur from any SWMU(s) and/or AOC(s).

8. Compliance Schedule For Reporting.

(a) The Permittee shall submit, to the Commissioner, signed progress reports, as specified in approved work plans pursuant to this Permit, of all activities (i.e., SWMU Assessment, Interim Measures, RCRA Facility Investigation, Corrective Measures Study) conducted pursuant to the provisions of the Corrective Action Compliance Schedules of this Permit Module, initially beginning no later than thirty (30) calendar days after the Permittee is first required to begin implementation of any requirement herein. These reports shall contain:

(i) A general description of the work completed during the reporting periods;

(ii) Summaries of all findings made during the reporting period, including summaries of available laboratory data, but excluding groundwater data submitted in semi-annual and annual reports;

(iii) Summaries of all changes made during the reporting period;

(iv) Summaries of all formal contacts made with representatives of the local community and public interest groups relative to the items regulated under Module III of this Permit during the reporting period;

(v) Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

(vi) Changes in personnel conducting or managing the corrective action activities during the reporting period;

(vii) Projected work for the next reporting period; and

(viii) Copies of daily reports, inspection reports, laboratory/monitoring data, etc., generated

during the reporting period.

(b) Upon request, copies of other relevant reports and/or data not included as part of any other report as required by this Permit Module shall be made available to the Commissioner. The relevant reports and data shall include but not be limited to copies of daily reports, inspection reports, laboratory and monitoring data, etc. and other data not identified in Module Condition B.8.(a).

(c) The Commissioner may require the Permittee to conduct new or more extensive assessments, investigations, or studies, based upon information provided in the progress reports referred to in Module Condition B.8(a) above, or upon other supporting information.

(d) All plans and schedules required by the conditions of this Permit Module and Appendix III-D are upon approval of the Commissioner, incorporated into this Permit by reference and become an enforceable part of this Permit. Any noncompliance with such approved plans and schedules shall constitute noncompliance with this Permit. Extensions of the due dates for submittals may be granted by the Commissioner in accordance with the permit modification processes stipulated in Module Condition E.14. of this Permit Module.

9. Compliance with Governmental Requirements. During investigative activities, interim corrective measures, and final corrective measures, (including, but not limited to, equipment decommissioning, excavation and unit demolition) required under this Module, the Permittee shall ensure that the transportation, treatment, storage, discharge, and disposal of all contaminated materials generated as a result of such activities (including, but not limited to, soils, sediments, liquids, tanks, pipes, pumps, rubble, debris, and structural materials) are performed in an environmentally sound manner pursuant to all applicable Federal, State and local requirements and that is protective of public health and the environment. Nothing in this Module shall be construed to require the Permittee to proceed in a manner which is in violation of any such

requirements.

10. Notifications.

(a) Notification of groundwater contamination. If at any time the Permittee discovers and confirms based upon the approved monitoring system contained in E.17.(c) of this Module or as modified in the future that hazardous constituents in groundwater that may have been released from a solid waste management unit or area of concern at the facility have migrated beyond the facility boundary in concentrations that exceed action levels, the Permittee shall provide written notice to the Commissioner within thirty (30) calendar days of confirmation that the facility releases of hazardous constituents in groundwater have migrated off-site. The written notice to the Commissioner shall include a proposed plan to notify any person who owns or resides on the land which may overlie the contaminated groundwater.

(b) Notification of air contamination. If at any time the Permittee discovers that hazardous constituents in air that may have been released from a solid waste management unit or area of concern at the facility have or are migrating to areas beyond the facility boundary in concentrations that exceed action levels, and that residences or other places at which continuous, long-term exposure to such constituents might occur are located within such areas, the Permittee shall, within fifteen (15) calendar days of such discovery;

(i) Provide written notification to the Commissioner; and

(ii) Initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.

(c) Notification of residual contamination. If hazardous wastes or hazardous constituents in solid waste management units or areas of concern, or which have been released from solid waste management units

or areas of concern, will remain in or on the land, including groundwater, after the term of the permit has expired, the Commissioner may require the Permittee to record, in accordance with State law, a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property of the types, concentrations, and locations of such hazardous wastes or hazardous constituents. The Commissioner may require such notice as part of the corrective measures selection process.

C. **COMPLIANCE SCHEDULE FOR ASSESSMENT OF NEWLY IDENTIFIED SWMUS AND AOCS.**

1. Notification of Assessment. The Permittee shall notify the Commissioner, in writing semi-annually, of any additional, newly identified SWMU(s) which were constructed prior to the issuance of this Permit and which are located within an Area of Concern listed in this Module (e.g., Area A). The Permittee shall also notify the Commissioner, in writing semi-annually, of any newly contructed SWMU(s) and/or AOC(s) not listed in this Module.

   In the semi-annual report, the Permittee shall submit a SWMU Assessment set forth in Module Condition C.2. for units which were constructed prior to the issuance of this Permit and which are located within Areas of Concern listed in this Module. Based upon the information provided in the notification, the Commissioner shall determine the need for a further assessment. If the Commissioner determines that such assessments are necessary, the Commissioner shall, by written notification, require the Permittee to prepare and execute a SWMU/AOC Sampling and Analysis Plan in accordance with Module Conditions C.3., C.4., C.5., and C.6.. For newly constructed SWMU(s) and/or AOC(s) not listed in this Module, the Permittee shall provide information pertaining to Module Condition C.2.(a-f) in the semi-annual report.

   The Permittee shall notify the Commissioner, in writing, within fifteen (15) calendar days of identifying existing units constructed prior to the issuance of this Permit and

which are located outside of the Areas of Concern listed in this Module.

2. SWMU/AOC Assessment Report. Within thirty (30) calendar days after notifying the Commissioner of a unit existing prior to this Permit and located outside of an Area of Concern, the Permittee shall submit a SWMU/AOC Assessment report. Based upon the information provided in this assessment, the Commissioner shall determine the need for a further assessment. If the Commissioner determines that additional evaluation is necessary, the Commissioner shall notify the Permittee in writing to prepare and execute a SWMU/AOC Sampling and Analysis Plan in accordance with Module Conditions C.3., C.4., C.5. and C.6.. This SWMU/AOC Assessment Report must provide, at a minimum, the following information for each newly identified SWMU/AOC:

   (a) Type of unit/area;

   (b) Location of each unit/area on a topographic map of appropriate scale;

   (c) Dimensions, capacities, and structural descriptions of the unit/area (supply available engineering drawings);

   (d) Function of unit/area;

   (e) Dates that the unit/area was operated;

   (f) Description of the wastes that were placed or spilled at the unit/area;

   (g) Description of any known releases from the unit/area (to include groundwater data, soil analyses, air monitoring data, and/or surface water/sediment data);

   (h) The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes, including hazardous constituents, have occurred, are occurring, or are likely to occur from the unit/area; and

   (i) Whether this unit/areas, individually or in

combination with other units/areas described in Module Condition A.3. is a significant source of contaminant release.

3. SWMU/AOC Sampling and Analysis Plan. Within thirty (30) calendar days after notification by the Commissioner that a SWMU/AOC Sampling and Analysis Plan required as set forth Module Condition C.2., the Permittee shall submit to the Commissioner for approval a Plan in accordance with the most recent version of the NYS RCRA Quality Assurance Project Plan Guidance, for any sampling and analysis of groundwater, land surface and subsurface strata, surface water/sediment or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) and/or area(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU/AOC Sampling and Analysis Plan must demonstrate that the sampling and analyses program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) and/or AOC(s) to the environment.

4. Subsequent Assessment Actions. Following submission of the SWMU/AOC Assessment Sampling and Analysis Plan set forth in Module Condition C.3., subsequent activities for the Plan shall proceed in accordance with the following schedule:

   (a) Meeting between the Permittee, the U.S. Environmental Protection Agency (Agency) and the New York State Department of Environmental Conservation (Department) to discuss Plan comments, as appropriate; and

   (b) Submission of a revised Plan to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Commissioner); and

(c) Begin implementation of the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval from the Commissioner for the Plan.

5. SWMU/AOC Sampling and Analysis Report. Within thirty (30) calendar days of receipt by the Permittee of complete, validated analytical data generated under the approved SWMU/AOC Sampling and Analysis Plan, the Permittee shall follow reporting requirements in the approved Plan and submit a SWMU/AOC Sampling and Analysis Report to the Commissioner. The Report shall describe all results obtained from the implementation of the approved Plan.

6. Assessment Conclusions. Based on the results of the SWMU/AOC Sampling and Analysis Report, the Commissioner shall determine the need for further investigations at the specific unit(s) covered in the SWMU/AOC Assessment Report. If the Commissioner determines that such investigations are needed, the Commissioner shall, by written notification, require the Permittee to prepare and submit for approval a RCRA Facility Investigation Work Plan in accordance with Module Condition E.5. et. seq..

D. **COMPLIANCE SCHEDULE AND NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMUS AND AOCS.**

The Permittee shall notify the Commissioner, in writing, of any release(s) of hazardous wastes, including hazardous constituents, from SWMUs and AOCs,discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities no later than fifteen (15) calendar days after discovery. Such newly-discovered release(s) may be from the newly-identified unit(s)/area(s), from the unit(s)/area(s) for which, based on the findings of the RFA, the Commissioner had previously determined that no further investigation was necessary, or from the unit(s)/area(s) investigated as part of an RFI. Based on the information provided in the notification, the Commissioner shall determine the need for further investigation of the release(s). If the Commissioner determines that such investigations are needed, the Commissioner shall, by written notification, require the Permittee to prepare a RCRA Facility Investigation Work Plan in accordance with Module Condition E.5. et. seq.. Releases from hazardous waste treatment,

storage, and disposal (TSD) units subject to regulation by this Permit shall be initially addressed by the procedures contained in the Permittee's approval Contingency, Preparedness and Prevention Plan appended to this Permit. Should the release and the environmental media affected by the release not be adequately addressed by the procedures stipulated in those approved plans, then remediation shall be pursued in accordance with this Permit Module Condition.

E. **CORRECTIVE ACTION REQUIREMENTS.**

1. No Action Requirement.

(a) On the basis of the RCRA Facility Assessment-Preliminary Review dated October 1, 1992, as revised, the Commissioner has determined that there is no evidence at this time of the release(s) of hazardous waste(s) and/or constituent(s) that threaten human health or the environment from the following SWMU(s) and/or AOC(s) identified in Module Condition A.3:

Table III-2
SWMUs

UNIT ID #	DESCRIPTION	LOCATION	STATUS
TS Area B/303	Tank Trailer Storage Area	B/303 W	Active
B/309 Room #2	Drum Storage Room	B/309	Active
B/309 Room #5	Drum Storage Room	B/309	Active
B/309 Room #7	Drum Storage/Consolidation Room	B/309	Active
B/309 Room #8	Drum Storage Room	B/309	Active
B/309 Room #9	Drum Storage Room	B/309	Active
B/309 Room #11	Drum Loading/Unloading Dock	B/309	Active
B/309 Room #23	Drum Storage Room	B/309	Active
B/309 L/UL Dock	Drum Loading/Unloading Dock	B/309 Link	Active
B/386 DB Area	Sludge Dumpster Bay	B/386	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B/386 DS Area	Sludge Dumpster Storage Area	B/386	Active
B/690 DB Area	Sludge Dumpster Bay	B/690	Active
L/UL Area #5	Tank Truck Loading/Unloading Area	B/320B	Inactive
L/UL Area #6	Tank Truck Loading/Unloading Area	B/309 NW	Active
L/UL Area #7	Tank Truck Loading/Unloading Area	B/309 N	Active
L/UL Area #11	Tank Truck Loading/Unloading Area	B/300 N	Active
L/UL Area #12	Tank Truck Loading/Unloading Area	B/330C NE	Active
L/UL Area #13	Tank Truck Loading/Unloading Area	B/330D NE	Active
L/UL Area #15	Tank Truck Loading/Unloading Area	B/335 NE	Active
L/UL Area #16	Tank Truck Loading/Unloading Area	B/320B E	Inactive
L/UL Area #21	Tank Truck Loading/Unloading Area	B/334 NW	Active
L/UL Area #29	Tank Truck Loading/Unloading Area	B/303	Active
L/UL Area #24	Tank Truck Loading/Unloading Area	B/338 SW	Active
L/UL Area #25	Tank Truck Loading/Unloading Area	B/322 E	Active
L/UL Area #26	Tank Truck Loading/Unloading Area	B/325 N	Active
L/UL Area #31	Tank Truck Loading/Unloading Area	B/330D E	Active
L/UL Area #32	Tank Truck Loading/Unloading Area & Sludge Dumpter Storage Area	B/690 S	Active
L/UL Area B650	Tank Truck Loading/Unloading Area	B/650	Active
CW L/UL 300	Container Waste Loading/Unloading Area	B/300	Active
CW L/UL 320B	Container Waste Loading/Unloading Area	B/320 B	Inactive
CW L/UL 322	Container Waste Loading/Unloading Area	B/322	Active
CW L/UL 323	Container Waste Loading/Unloading Area	B/323	Inactive
CW L/UL 330F	Container Waste Loading/Unloading Area	B/330 F	Active
CW L/UL 330OMF	Container Waste Loading/Unloading Area	B/330 C	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
CW L/UL 330C	Container Waste Loading/Unloading Area	B/330 C	Active
CW L/UL 330D	Container Waste Loading/Unloading Area	B/330 D	Active
CW L/UL 334	Container Waste Loading/Unloading Area	B/334	Active
CW L/UL 316	Container Waste Loading/Unloading Area	B/316 W	Active
CW L/UL 630	Container Waste Loading/Unloading Area	B/630	Active
CW L/UL 640	Container Waste Loading/Unloading Area	B/640	Active
CW L/UL 650	Container Waste Loading/Unloading Area	B/650	Active
CW L/UL 690	Container Waste Loading/Unloading Area	B/690	Active
CW L/UL 338	Container Waste Loading/Unloading Area	B/338	Active
CW L/UL 315	Container Waste Loading/Unloading Area	B/315	Active
CW L/UL 335	Container Waste Loading/Unloading Area	B/335	Active
81	Sanitary/Treated Ind. Wastewater	B/325 N	Active
Building 386	Fluoride/Heavy Metals Wastewater Treatment Plant	B/386	Active
Building 690	Fluoride/Heavy Metals Wastewater Treatment Plant	B/690	Active
15	Solvent Waste-Mixed	B/320B E	Active
26	Fluoride/Heavy Metals Wastewater	B/385 E	Inactive,removed
28	Fluoride/Heavy Metals Wastewater	B/385 E	Inactive,removed
29	Fluoride/Heavy Metals Wastewater	B/385 SW	Inactive,Abandon
35	Fluoride/Heavy Metals Wastewater	B/385 S	Inactive,Abandon
38	Silicon Waste	B/385 S	Inactive,removed
40	Fluoride/Heavy Metals Wastewater	B/385 S	Inactive
58	Fluoride/Heavy Metals Wastewater	B/300B S	Inactive,removed
80	Fluoride/Heavy Metal Wastewater	B/300B S	Inactive
90	Industrial Wastewater	B/315 E	Inactive,removed
117	Solvent Waste-Mixed (Spill Tank)	B/304 N	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
118	Solvent Waste-Mixed (Spill Tank)	B/304 S	Active
154	Industrial Wastewater	B/315 E	Inactive,removed
157C	Solvent Waste-Mixed	B/320B S	Inactive
158	Perchloroethylene Waste	B/335	Active
159	Recycled Perchloroethylene	B/335	Active
162	Fluoride/Heavy Metals Wastewater	B/330C Link	Inactive
168	Solvent Waste-Mixed	B/330D	Active
173	Solvent Waste-Mixed	B/330C E	Inactive
178	Recycled Perchloroethylene	B/335	Active
179	Recycled Perchloroethylene	B/335	Active
186	Industrial Waste	B/303 A-1	Active
200	Fluoride/Heavy Metals Wastewater	B/385	Inactive,removed
201	Fluoride/Heavy Metals Wastewater	B/385	Inactive,removed
202	Fluoride/Heavy Metals Filter Press	B/385	Inactive,removed
204	Solvent Waste-Mixed	B/322 E	Active
205	AZ-Strip Waste	B/322 E	Active
206	Isopropyl Alcohol Waste	B/322 E	Active
207	N-Methyl-2-Pyrrolidone Waste	B/322 E	Active
208	Solvent Waste-Mixed (Spill Tank)	B/322 W	Active
214	Contaminated Groundwater	B/384 S Link	Active
219	Solvent Waste-Mixed (Spill Tank)	B/303 D-5	Active
220	Solvent Waste-Mixed	B/303 D-5	Active
221	Solvent Waste-Mixed	B/303 D-5	Active
222	Freon TF Waste	B/303 D-4	Inactive
223	N-Methyl-2-Pyrrolidone Waste	B/303 D-6	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
224	AZ-Stripp Waste	B/303 D-6	Active
225	Isopropyl Alcohol Waste	B/303 E-6	Active
231	Treated Groundwater	B/384	Active
249	Fluoride/Heavy Metals Wastewater	B/334 D-2 Tk Pit	Inactive, removed
250	Industrial Waste	B/334 D-2 Tk pit	Active
251	Solvent Waste-Mixed	B/334 D-2 Tk Pit	Active
252	Solvent Waste-Mixed	B/334 D-2 Tk Pit	Active
257	Solvent Waste-Mixed	B/330C S	Inactive
263	Industrial Waste	B/323 K-14	Inactive
264	Industrial Waste	B/323 K-14	Inactive
265	Fluoride/Heavy Metals Wastewater	B/323 K-13	Inactive
266	Fluoride/Heavy Metals Wastewater	B/323 K-14	Inactive
267	Fluoride/Heavy Metals Wastewater	B/323 L-13	Inactive
272	Solvent Waste-Mixed	B/323 BF-1 Tk Rm	Inactive
273	Freon TF Waste	B/323 BF-1 Tk Rm	Inactive
274	N-Methyl-2-Pyrrolidone	B/323 BF-1 Tk Rm	Inactive
275	AZ 300 T Strip	B/323 BF-1 Tk Rm	Inactive
276	Acetone Waste	B/323 BF-1 Tk Rm	Inactive
277	Solvent Waste-Mixed	B/323 BF-1 Tk Rm	Inactive
278	Solvent Waste-Mixed	B/323 BF-1 Tk Rm	Inactive
281	Industrial Waste Effluent	B/315 E	Active
282	Industrial Waste Effluent	B/315 E	Active
285	Solvent Waste-Mixed	B/309 NW	Active
286	Oil/Water (Phenol) Waste	B/338 W	Active
287	Oil/Water (Phenol) Waste	B/338 W	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
293	Fluoride/Heavy Metals Wastewater	B/334 D-2 Tk Pit	Active
294	Industrial Waste	B/334 MER	Active
295	Industrial Waste	B/334 MER	Active
296	Perchloroethylene	B/334 C17	Inactive,removed
297	Perchloroethylene	B/334 D17	Inactive,removed
300	Fluoride/Heavy Metals Wastewater	B/385 1st Fl.	Inactive,removed
301	Fluoride/Heavy Metals Wastewater	B/385 1st Fl.	Inactive,removed
302	Fluoride/Heavy Metals Wastewater	B/385 1st Fl.	Inactive,removed
303	Fluoride/Heavy Metals Wastewater	B/385 1st Fl.	Inactive,removed
304	Fluoride/Heavy Metals Wastewater	B/385 1st Fl.	Inactive,removed
334	Perchloroethylene Waste	B/330D AX-37	Active
345.00	Mixed Solvent Waste, DI Water and 10% HCl, Photo Active Compounds	B/330C D-28	Inactive,removed
396.00	Perchloroethylene Waste	B/330D BB-30	Active
397.00	Perchloroethylene Waste	B/330D AT-35	Active
427.00	Fluoride/Heavy Metals Wastewater	B/385	Inactive,removed
429.00	Nickel Boron Waste	B/330D BB-38	Inactive,removed
430.00	Immersion Gold	B/330D BB-38	Inactive,removed
431.00	Potassium Ferricyanide	B/330D BB-38	Inactive,removed
432.00	Neutra Clean Wastewater	B/330D BB-38	Inactive,removed
433.00	Palladium Chloride	B/330D BB-38	Inactive,removed
448	Fluoride/Heavy Metals Wastewater	B/308	Inactive
455	Perchloroethylene Waste	B/335	Inactive,removed
456	Recycled Perchloroethylene	B/335	Active
457	Recycled Perchloroethylene	B/335	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
458	Perchloroethylene Waste	B/335	Active
459	Perchloroethylene Waste	B/335	Active
460	Perchloroethylene Waste	B/335	Active
Old 461	Perchloroethylene Waste	B/335	Inactive,removed
461	Perchloroethylene Waste	B/335	Active
462	Perchloroethylene Waste	B/335	Active
465	Perchloroethylene Waste	B/335	Active
466	Perchloroethylene Waste	B/335	Active
467	Recycled Perchloroethylene	B/335	Active
473	Perchloroethylene Waste	B/330D BD-30	Active
474	Perchloroethylene Waste	B/330D BD-31	Active
475	Perchloroethylene Waste	B/330D BD-32	Active
476	Perchloroethylene Waste	B/330D BD-33	Active
477	Perchloroethylene Waste	B/330D BD-34	Active
501	Perchloroethylene Carbon Bed	B/335	Active
502	Perchloroethylene Carbon Bed	B/335	Active
503	Perchloroethylene Carbon Bed	B/335	Active
529	Industrial Wastewater	B/316 L-2	Active
555	Industrial Waste Treatment	B/316 L-2	Active
569	Sodium Hydroxide, DI Water, Hydrochloric Acid	B/330C OMF	Inactive,removed
570	Mixed Solvent Waste	B/330C OMF	Active
577	Industrial Waste Sludge	B/312 E	Active
578	Industrial Waste	B/316 D-3	Active
579	Industrial Wastewater	B/316 C-1	Active
580	Industrial Waste Sludge	B/312 E	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
581	Industrial Waste Treatment	B/316 B-1	Active
582	Industrial Waste Treatment	B/316 B-2	Active
584	Industrial Waste	B/316 E Pump-House	Active
588	Industrial Wastewater	B/316 E Pump-house	Active
589	Industrial Waste Treatment	B/316 N/W	Active
590	B/385 Tank F DF Rinse Tank	B/385	Active
591	B/385 Tank G DA Rinse Tank	B/385	Active
592	Solvent Waste	B/330C	Inactive,removed
593	Solvent Waste-Mixed	B/330C	Inactive,removed
3002	Fluoride/Heavy Metals Wastewater	B/386 W	Active
3003	Fluoride/Heavy Metals Wastewater	B/386 W	Active
3004	Fluoride/Heavy Metals Wastewater	B/386 W	Active
3005	Fluoride/Heavy Metals Wastewater	B/386 W	Active
3017	Sanitary/Treated Industrial Waste	B/325 NW	Active
3023	Sanitary/Treated Industrial Wastewater	B/325 N	Active
3024	Sanitary/Treated Industrial Wastewater	B/325 NW	Active
3025	Sanitary/Treated Industrial Wastewater	B/325 N	Active
3044	Fluoride/Heavy Metals Wastewater	B/386 E-4	Active
3045	Fluoride/Heavy Metals Wastewater	B/386 E-5	Active
3046	Fluoride/Heavy Metals Wastewater	B/386 F-4	Active
3047	Fluoride/Heavy Metals Wastewater	B/386 F-4	Active
3048	Fluoride/Heavy Metals Wastewater	B/386 F-4	Active
3049	Fluoride/Heavy Metals Wastewater	B/386 F-4	Active
3050	Fluoride/Heavy Metals Wastewater	B/386 N	Active
3051	Fluoride/Heavy Metals Wastewater	B/386 N	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
3052	Fluoride/Heavy Metals Wastewater	B/386 N	Active
3053	Silicon Processing Waste,	B/386 N	Active
3054	Fluoride/Heavy Metals Wastewater Sludge	B/386 N	Active
3055	Fluoride/Heavy Metals Wastewater Sludge	B/386 N	Active
3056	Industrial Waste Treatment	B/386 N	Active
3057	Industrial Waste Treatment	B/386 N	Active
3063	Fluoride/Heavy Metals Wastewater	B/386 G-4	Active
3064	Industrial Waste Treatment	B/386 F-5	Active
3065	Industrial Waste Treatment	B/386 F-5	Active
3069	Industrial Waste Treatment	B/386 D-3	Active
3071	Industrial Waste Treatment	B/386 D-3	Active
3072	Industrial Waste Treatment	B/316 C-2	Active
3073	Industrial Waste Treatment	B/316 NW	Active
3074	Industrial Waste Treatment	B/316 B-2	Active
3077	Perchloroethylene Waste	B/335	Active
3079	Perchloroethylene Waste	B/335	Active
3083	Sanitary/Treated Industrial Wastewater	B/325 NW	Inactive
3084	Sanitary/Treated Industrial Wastewater	B/325 NW	Inactive
3085	Sanitary/Treated Industrial Wastewater	B/325 NW	Inactive
3093	B/322 FREON TF Reprocessor Input	B/322	Inactive
3094	Industrial Wastewater	B/316 E-1	Active
3095	Industrial Wastewater	B/316 E-1	Active
3096	Industrial Wastewater	B/316 E-1	Active
3098	Industrial Wastewater	B/335	Active
3102	Solvent Waste - Mixed	B/330C	Inactive

UNIT ID #	DESCRIPTION	LOCATION	STATUS
3110	Solvent Waste - Mixed	B/330D	Inactive
3111	Fluoride/Heavy Metals Wastewater	B/334 E-9	Active
3121	Mixed Solvent Waste	B/330G	Active
3122	Fluoride/Heavy Metals Wastewater	B/330C Pump-house (B/330G)	Active
3123	Fluoride/Heavy Metals Wastewater	B/330C Pump-house (B/330G)	Active
3124	Fluoride/Heavy Metals Wastewater	B/312 Lift Station	Active
3125	Fluoride/Heavy Metals Wastewater	B/312 Lift Station	Active
3126	Fluoride/Heavy Metals Wastewater	B/312 Lift Station	Active
3127	Fluoride/Heavy Metals Wastewater	B/330D Lift Station	Active
3128	Fluoride/Heavy Metals Wastewater	B/330D Lift Station	Active
3129	Industrial Wastewater	B/310	Active
3131	Industrial Wastewater	B/325 Basement	Active
3132	Industrial Wastewater	B/330C Pump-house (B/330G)	Active
3133	Industrial Wastewater	B/330C Pump-house (B/330G)	Active
3134	Industrial Wastewater	B/310	Active
3166	Industrial Wastewater	B/338 P-41	Active
3167	Industrial Wastewater	B/330C D-26	Active
3168	Industrial Wastewater	B/330C D-26	Active
3198	Contaminated Groundwater	B/384	Active
3200	Perchloroethylene Waste	B/330D BE-33	Active
3201	Perchloroethylene Waste	B/330D BE-33	Active
3202	Perchloroethylene Waste	B/330D	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
3226	Mixed Solvent Wastes	B/309 NW (Room 3)	Active
3229	Perchloroethylene Waste	B/335	Active
3236	Perchloroethylene Waste	B/335	Active
3237	Perchloroethylene Waste	B/335	Active
3238	Industrial Wastewater, Cooling Tower Blowdown/Overflow	B/335	Active
3239	Perchloroethylene Waste	B/335	Active
3240	Perchloroethylene Waste	B/335	Active
3241	Contaminated Groundwater, Solvent Waste-Mixed	B/384 S Link	Active
3242	Contaminated Groundwater, Solvent Waste-Mixed	B/384 S Link	Active
3243	Fluoride/Heavy Metal Wastewater	B/300 BJ-203, Shelter Basement	Active
3244	Fluoride/Heavy Metal Wastewater	B/300 BJ-203, Shelter Basement	Active
3245	Industrial Wastewater	B/312 SE	Active
3248	Fluoride/Heavy Metal Waste	B/334	Active
3249	B/328 NMP Waste Reprocessor	B/328	Inactive
3250	B/328 IPA Waste Reprocessor	B/328	Inactive
3254	B/328 Acetone Waste Reprocessor	B/328	Inactive
3293	B/323 FREON TF Reprocessor Input	B/323	Inactive
3328	Sanitary Wastewater	B/327	Active
5000	Industrial Wastewater	B/690 N	Active
5001	Industrial Wastewater, Water Softener Regeneration Wastes	B/694 W	Inactive,removed
5012	Raw Industrial Waste Tank	B/690 N	Active
5018	Industrial Wastewater	B/640 L-1 1st Fl.	Active
5019	Industrial Wastewater	B/600 J-8 1st Fl.	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
5020	Emergency Waste Tank	B/690 N	Active
5031	Industrial Wastewater	B/690 S	Active
5032	Industrial Wastewater	B/690 S	Active
5033	Industrial Wastewater	B/690 S	Active
5034	Fluoride/Heavy Metals Wastewater, Industrial Wastewater	B/690 S	Active
5035	Industrial Wastewater	B/690 S	Active
5036	Fluoride/Heavy Metals Wastewater	B/690 H-14	Active
5037	Fluoride/Heavy Metals Wastewater, Industrial Wastewater	B/690 L-14	Active
5038	Industrial Wastewater	B/690 L-14	Active
5039	Fluoride/Heavy Metals Wastewater	B/690 G-14	Active
5040	Fluoride/Heavy Metals Wastewater	B/690 B-12	Active
5041	Industrial Wastewater	B/690 K-14	Active
5046	Fluoride/Heavy Metals Wastewater	B/690 G-12	Active
5047	Industrial Wastewater	B/690 H-14	Active
5068	IPA Waste	B/650 1-N-2	Active
5069	Solvent Waste - Mixed	B/650 1-N-2	Active
5070	Solvent Waste-Anisole	B/650 1-N-2	Inactive
5071	Solvent Waste-Mixed	B/650 1-N-2	Active
5072	Fluoride/Heavy Metal Waste	B/650 O-2	Active
5073	Fluoride/Heavy Metal Waste	B/650 O-2	Active
5076	Industrial Waste	B/650 L-10	Active
5077	Industrial Waste	B/650 L-10	Active
5078	Industrial Waste	B/650 L-10	Active
5081	Fluoride/Heavy Metals Wastewater	B/690 S	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
5082	Industrial Wastewater	B/690 S	Active
5300	Industrial Wastewater	B/690 A-10	Active
5301	Fluoride/Heavy Metals Wastewater Sludge, Industrial Wastewater Sludge	B/690 A-13	Active
5302	Industrial Wastewater	B/690	Inactive,removed
5303	Fluoride/Heavy Metals Wastewater	B/690 Pmp Hs	Active
5305	Fluoride/Heavy Metals Wastewater	B/690 G-15	Active
5306	Fluoride/Heavy Metals Wastewater	B/690 G-15	Active
5309	Fluoride/Heavy Metals Wastewater	B/690	Active
5324	Industrial Wastewater	B/630 L-1	Active
5328	Industrial Waste	B/600 J-8	Active
5396	Industrial Waste	B/690 F-10	Inactive,removed
5397	Industrial Waste	B/692 A-1	Active
5398	Industrial Waste	B/693 B-2	Active
5399	Industrial Waste	B/690 B-3	Active
5400	Industrial Waste	B/650 E-7	Active
5401	Industrial Waste	B/650 F-9	Active
5402	Industrial Waste	B/650 J-9	Active
5403	Industrial Waste	B/650 M-9	Active
5404	Industrial Waste	B/650 Q-9	Active
5405	Industrial Waste	B/650 T6-C	Active
5406	Industrial Waste	B/650 J-3	Active
B/310 LS FL	Fluoride/Heavy Metals Lift Stations	B/310	Active
B/310 LS IW	Industrial Wastewater Lift Stations	B/310	Active
B/310 LS SO	Solvent Waste Lift Stations	B/310	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B/320B LS FL	Fluoride/Heavy Metals Lift Stations	B/320B	Inactive
B/320B LS IW	Industrial Wastewater Lift Stations	B/320B	Inactive
B/320B LS SO	Solvent Waste Lift Stations	B/320B	Inactive
B/330C LS FL	Fluoride/Heavy Metals Lift Stations	B/330C	Active
B/330C LS IW	Industrial Wastewater Lift Stations	B/330C	Active
B/330C LS SO	Solvent Waste Lift Stations	B/330C	Active
B/330D LS FL	Fluoride/Heavy Metals Lift Stations	B/330D	Active
B/330D LS IW	Industrial Wastewater Lift Stations	B/330D	Active
B/330D LS SO	Solvent Waste Lift Stations	B/330D	Active
B/386 FP-1	Fluoride/Heavy Metals Filter Press	B/386	Active
B/386 FP-2	Fluoride/Heavy Metals and IW Filter Press	B/386	Active
B/690 FP-1	Fluoride/Heavy Metals and IW Filter Press	B/690	Active
B300-SO	Solvent Waste	B/300	Inactive,removed
B300-FL	Fluoride/Heavy Metals Wastewater	B/300	Active
B322-SO	Solvent Waste	B/322	Active
B322-FL	Fluoride/Heavy Metals Wastewater	B/322	Active
B322-IW	Industrial Wastewater	B/322	Active
B323-IW	Industrial Wastewater	B/323	Inactive
B323-FL	Fluoride/Heavy Metals Wastewater	B/323	Inactive
B323-SO	Solvent Waste	B/323	Active
B334-IW	Industrial Wastewater	B/334	Active
B334-FL	Fluoride/Heavy Metals Wastewater	B/334	Active
B334-SO	Solvent Waste	B/334	Active
	Silicon Slurry Lagoon	Area B	Inactive
	Hazardous Waste Landfill (LF #1)	B/330D	Inactive,removed

UNIT ID #	DESCRIPTION	LOCATION	STATUS
	Construction Debris Landfill (LF #2)	B/334 E	Inactive, removed
B325	Water Pollution Control Plant (Sanitary)	B/325	Active

(b) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Module Condition E.1.(a) as long as there is no evidence of the release(s) of hazardous waste(s) or constituent(s) from the SWMU(s) and/or AOC(s) threatening human health or the environment. This permit condition does not apply to any other stipulation specified in other Modules or Conditions of this Permit.

(c) A determination of no further action shall not preclude the Commissioner from modifying this Permit at a later date to require further investigations, studies, monitoring, or corrective measures, if new information or subsequent analysis indicates the release(s) or likelihood of release(s) from SWMU(s) and/or AOC(s) identified in Module Condition E.1.(a) that could pose a threat to human health or the environment.

2. Compliance Schedule For RCRA Facility Assessment ("RFA") Sampling Visit Work Plan .

(a) On the basis of the RCRA Facility Assessment-Preliminary Review dated October 1, 1992, as revised, the Commissioner has determined that there is the potential for the release(s) of hazardous waste(s) and/or constituents to have occurred from the following SWMU(s) and/or AOC(s) identified in Module Condition A.3. that require implementation of a RFA Sampling Visit:

(i)

Table III-3

SWMUs

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B/330D-DF (DF3)	Fluoride/Heavy Metals Wastewater Pipeline - External Forced System to B/312 Tranfer Station (below ground)	B/330D	Active
B/322-DF (DF7)	Fluoride/Heavy Metals Wastewater Pipeline - External Gravity System to B/312 Tranfer Station (below ground)	B/322	Active
B/312-DF (DF8)	Fluoride/Heavy Metals Wastewater Pipeline - External Forced Sytem to B/386 Treatment Plant (below ground)	B/312	Active
B/308-DF (DF9)	Fluoride/Heavy Metals Wastewater Pipeline - External Forced System to B/386 Treatment Plant (below ground)	B/308	Active
B/310-DF (DF13)	Fluoride/Heavy Metals Wastewater Pipeline - External Gravity System to B/320 Tranfer Pump Station (below ground)	B/310	Active
B/330-IW (IW3)	Industrial Wastewater Pipeline - External Forced System to B/312 Treatment Plant (below ground)	B/330	Active
B/308-IW (IW4)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/308	Active
B/386-IW (IW7)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/386	Active
B/320-IW (IW9)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/320	Active
B/310-320-IW (IW10)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/310-320	Active
LN2-IW (IW11)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/316	Active
B/300-IW (IW15)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/300	Active
B/322-IW (IW16)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/322	Active
B321-IW (IW17)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/321	Active

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B/312-325-IW (IW19)	Industrial Wastewater Pipeline - External Forced System to B/325 Wastewater Pollution Prevention Plant (below ground)	B/312-325	Active
B/322-IW2 (IW20)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/322	Active
B/315-IW1 (IW21)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/315	Active
B/SSF-IW (IW22)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	SSF	Active
B/315-IW2 (IW25)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/315	Active
B/315-IW3 (IW26)	Industrial Wastewater Pipeline - External Gravity System to B/312 Treatment Plant (below ground)	B/315	Active

(ii) Table III-4
AOC

Area of Concern
Southeast Quadrant (SEQ)

(b) Within one hundred and twenty (120) calendar days after the effective date of this Permit, the Permittee shall submit to the Commissioner for approval, a RCRA Facility Assessment-Sampling Visit ("RFA-SV") Work Plan for the AOC(s) identified in Module Condition E.2.(a)(ii). The Permittee shall submit and develop the RFA-SV Work in accordance with the RCRA Sampling Visit Work Plan Outline specified in Appendix III-E of this Permit Module and the most recent version of the RCRA Quality Assurance Project Plan Guidance.

(c) After review and approval of the "Current Industrial Sewer Condition Report" submitted March 17, 1995 for the SWMU(s) identified in Condition E.2.(a)(i), the Commissioner shall make a final written determination regarding the need for

further investigation and corrective action.

(d) Following submission of the RFA-SV Work Plan set forth in Module Condition E.2.(b) for the AOC(s) identified in Module Conditions E.2.(a)(ii), subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plans to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plans to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plans comments from the Commissioner).

3. Compliance Schedule For RFA-SV Work Plan Implementation.

The Permittee shall begin implementation of the approved RFA-SV Work Plans for the SWMU(s)/AOC(s) identified in Module Condition E.2.(a)(ii), according to the schedule made part of the approved RFA-SV Work Plans.

4. Compliance Schedule For RFA-Sampling Visit Report.

(a) Within sixty (60) calendar days of receipt by the Permittee of complete, validated data generated under the approved RFA-SV Work Plan submitted pursuant to Module Condition E.2.(d), the Permittee shall submit a final report to the Commissioner on the SV for the AOC(s) identified in Module Condition E.2.(a)(ii). The report shall follow reporting requirements in the approved Plan and describe all results obtained from the implementation of the approved Plan.

(b) Based on the results of the RCRA Facility Assessment-Sampling Visit Report submitted pursuant to Module Condition E.4.(a), the Commissioner shall determine the need for further investigations at accessible specific unit(s) and/or area(s) covered in the Reports. If the Commissioner determines that such investigations are needed, the Commissioner shall, by written notification, require the Permittee to prepare and submit for approval a RCRA Facility Investigation Work Plan

in accordance with Module Condition E.5. et. seq..

5. Compliance Schedule For RCRA Facility Investigation ("RFI") Work Plan.

(a) On the basis of the RCRA Facility Assessment-Preliminary Review dated October 1, 1992, as revised, the Commissioner has determined that there has been a release of hazardous waste and/or constituents from the following SWMU(s), or combination of SWMU(s), and/or AOC(s) identified in Module Condition A.3. that require the implementation of an RFI:

Table III-5
SWMUs

SWMU(S)/ AOC(s)	FACILITY SUBMISSION REQUIREMENTS	OBJECTIVES	COMPLIANCE SCHEDULES
Bldg 322	RFI REPORT.	Characterize and delineate the extent and degree of groundwater contamination.	See Module Condition E.7.(a)
	RFI WORKPLAN PHASE III and RFI REPORT	Characterize and delineate the extent and degree of soil contamination	See Module Conditions E.5.(f) and E.7.(a)
Bldg 330	RFI REPORT.	Characterize and delineate the extent and degree of groundwater contamination.	See Module Condition E.7.(a)
	RFI WORKPLAN PHASE III and RFI REPORT	Characterize and delineate the extent and degree of soil contamination	See Module Conditions E.5.(f) and E.7.(a)

SWMU(S)/ AOC(s)	FACILITY SUBMISSION REQUIREMENTS	OBJECTIVES	COMPLIANCE SCHEDULES
Bldgs 308/310	RFI WORKPLAN PHASE II and RFI REPORT	Characterize and delineate the extent and degree of soil contamination	See Module Conditions E.5.(f) and E.7.(a)
Bldgs 309/310	RFI WORKPLAN PHASE II and RFI REPORT	Characterize and delineate the extent and degree of soil contamination	See Module Conditions E.5.(f) and E.7.(a)

(b) On the basis of the RCRA Facility Assessment-Preliminary Review dated October 1, 1992, as revised the Commissioner has determined that there has been a release of hazardous waste and/or constituents from the following inaccessible SWMU(s) and/or AOC(s) identified in Module Condition A.3.:

Table III-6

SWMUs

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B309-SO	Solvent Waste Pipeline (Below Ground)	B/309	Inactive
B330-SO	Solvent Waste Pipeline (Below Ground)	B/330	Inactive
B320-SO	Solvent Waste Pipeline (Below Ground)	B/320	Inactive
B310-SO	Solvent Waste Pipeline (Below Ground)	B/310	Inactive
B300-SO	Solvent Waste Pipeline (Below Ground)	B/300	Inactive
B330-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/330	Inactive
B320-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/320	Inactive

UNIT ID #	DESCRIPTION	LOCATION	STATUS
B310-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/310	Inactive
B330-IW	Industrial Wastewater Pipeline (Below Ground)	B/330	Inactive
B320-IW	Industrial Wastewater Pipeline (Below Ground)	B/320	Inactive
B308-IW	Industrial Wastewater Pipeline (Below Ground)	B/308	Inactive
B310-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/310	Inactive
B330-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/330	Inactive
B320-FL	Fluoride/Heavy Metals Wastewater Pipeline (Below Ground)	B/320	Inactive
B310-IW	Industrial Wastewater Pipeline (Below Ground)	B/310	Inactive
B320-IW	Industrial Wastewater Pipeline (Below Ground)	B/320	Inactive
B330C-IW	Industrial Wastewater pipeline (Below Ground)	B/330C	Inactive
B330D-IW	Industrial Wastewater pipeline (Below Ground)	B/330D	Inactive
B309-SO	Solvent Waste Pipeline (Below Ground)	B/309	Inactive

(c) The Permittee shall notify the Commissioner, in writing, within thirty (30) calendar days prior to the date when SWMU(s) and/or AOC(s) identified in Module Condition E.5.(b) and/or identified pursuant to Module Condition C.6. become accessible. The Permittee shall submit to the Commissioner for approval a RCRA Facility Investigation Task I Report on Current Conditions, a Task II Report on Pre-Investigation Evaluation of Corrective Measures

Technologies, and a Work Plan that meets the RFI Guidance included in Appendix III-B for the inaccessible SWMU(s) and/or AOC(s) identified in Module Condition E.5.(b) and/or identified pursuant to Module Condition C.6. no later than one-hundred and eighty (180) calendar days after the Permittee's written notification to the Commissioner that the SWMU(s) and/or AOC(s) become accessible for such an investigation. The RFI Work Plan shall be prepared in accordance with the provisions of Module Conditions E.5.(f)(i) through (iv). Accessibility to the SWMU(s) and/or AOC(s) shall be considered achievable when the impediment to the RFI (e.g. building, utilities) is demolished, abandoned, or to be altered in a manner that would allow access to the SWMU(s) and/or AOC(s).

(d) The Permittee shall submit to the Commissioner for approval a RCRA Facility Investigation Task I Report on Current Conditions required by the RFI Guidance included in Appendix III-B of this Permit Module. A Task I Report shall be submitted for approval within sixty (60) calendar days after the written notification by the Commissioner that an RFI is required pursuant to Module Conditions C.6., D. and/or E.4(b).

(e) Within one hundred and twenty (120) calendar days of the effective date of this Permit for the SWMU(s) and/or AOC(s) identified in Module Condition E.5.(a), the Permittee shall submit to the Commissioner for approval a RCRA Facility Investigation Task II Report on the Pre-Investigation Evaluation of Corrective Measures Technologies required by the RFI Guidance included in Appendix III-B of this Permit Module; if applicable. A Task II Report shall be submitted for approval within ninety (90) calendar days after the written notification by the Commissioner that an RFI is required pursuant to Module Conditions C.6, D. and/or E.4.(b).

(f) Within one hundred and twenty (120) calendar days of the effective date of this Permit, the Permittee shall submit to the Commissioner for approval an

RCRA Facility Investigation (RFI) Work Plan(s), if applicable, along with the historical data, characterizing the soil contamination at the SWMU(s) identified in Module Condition E.5.(a). The Permittee shall submit and develop the RFI Phase II and Phase III Work Plans in accordance with the notification letter and the RCRA RFI Work Plan Outlines specified in Appendix III-B as attachment III-B.1 of this Permit Module and the most recent version of the RCRA Quality Assurance Project Plan Guidance. A RFI Work Plan shall be submitted within ninety (90) calendar days after written notification by the Commissioner that an RFI is required pursuant to Module Conditions C.6., D., and/or E.4.(b) to address those units, releases of hazardous waste, including hazardous constituents, and media of concern which require the further investigations.

(i) The Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, direction, rate, movement, and concentration of releases of hazardous waste, including hazardous constituents, from specific units or groups of units and areas, and their actual or potential receptors. The Work Plan shall detail all proposed activities and procedures to be conducted at the facility and/or off-site, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.

(ii) The Work Plan shall discuss sampling and data collection quality assurance and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

(iii) The Work Plan must, at a minimum, address all necessary activities or include descriptions

to meet the requirements specified in Tasks III through V of the Guidance for a RCRA Facility Investigation included in Appendix III-B and its attachments to this Permit Module.

(iv) The Permittee may determine that any of the items required by Tasks III through V of the Guidance in Appendix III-B of this Permit Module have already been submitted or completed, and therefore, the resubmittal of those items are not necessary for completing the RFI of this Permit. The Permittee shall request, within thirty (30) calendar days of the effective date of this Permit, and/or within thirty (30) calendar days of any notification by the Commissioner that an RFI is required that the Commissioner review for approval the Permittee's determination. At the time of the request, the Permittee must provide the following information: (1) description of the items and/or summary of findings; (2) description of investigations addressing the items, documents/reports of the investigations with dates, and summary of the findings; and (3) copies of the documents/reports.

Upon the Commissioner's approval of any previously performed items, the Permittee may delete these from the RFI Work Plan. However, upon disapproval of items, all activities necessary for the items must be included in the RFI Work Plan.

(g) Following submission of the RFI Work Plan set forth in Module Condition E.5.(f), subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above-

referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Commissioner).

(h) The Commissioner shall review, for approval as part of the RFI Work Plan, any plans developed pursuant to Module Condition C.6, addressing further investigations of newly-identified SWMUs and/or AOCs, or Module Condition D, addressing newly discovered releases from units and/or areas. The Commissioner shall modify the Compliance Schedule of this Permit Module according to the permit modification procedures stipulated in Module Condition E.14. of this Permit Module to incorporate these units and areas and releases into the RFI Work Plan.

6. Compliance Schedule For RCRA Facility Investigation Work Plan Implementation

No later than thirty (30) calendar days after written notification by the Commissioner approving the RFI Work Plan, the Permittee shall begin implementation of the RFI according to the schedules specified in the RFI Work Plan. The RFI shall be conducted in accordance with the approved RFI Work Plan.

7. Compliance Schedule For RCRA Facility Investigation Final Report And Summary Report

(a) The Permittee shall submit to the Commissioner for approval the Final and Summary RFI Reports (Task VII of the Guidance for an RFI in Appendix III-B of this Permit Module) addressing investigations implemented at the SWMU(s) and AOC(s) listed in this Module Condition.

Table III-7
SWMUS

SWMU(s)/AOC(s)	MEDIA TO BE INVESTIGATED	COMPLIANCE SCHEDULE
Bldg 322 and Bldg 330	- Groundwater	Permittee shall submit semiannually RFI Progress Reports on groundwater monitoring activities carried-out pursuant to the RFI Groundwater Work Plans Approved February 24, 1994 and to the groundwater monitoring requirements in Module Condition E.17., Progress Reports are due sixty (60) calendar days following the end of a semiannual reporting period. The first progress report shall include data collected from prior groundwater monitoring activities at these buildings, but which have not been submitted to the Department. These progress report submittals shall constitute the Final RFI Report for characterizing groundwater contamination at Buildings 322 and 330. The submittal of the last RFI Progress Report and RFI Summary Report on groundwater contamination shall be submitted coincidentally with the Final Summary RFI Reports on soil contamination at Building 322 and 330
Bldg 322 and Bldg 330	- Soil	Within sixty (60) calendar days of receipt by the Permittee of complete validated analytical data generated under approved Final RFI Work Plans
Bldgs 308/310	- Soil	
Bldgs 309/310	- Soil	

(b) Within sixty (60) calendar days of receipt by the Permittee of complete, validated analytical data generated under approved RFI Work Plans submitted after written notification by the Commissioner requiring an RFI pursuant to Module Conditions C.6., D., and/or E.4.(b)., the Permittee shall submit to the Commissioner for approval the RFI Final and Summary Reports (Task VII of the Guidance for an RFI in Appendix III-B of this Permit Module).

(c) The RFI Final Report must contain adequate information to support further corrective action decisions at the facility and/or off-site, should such actions be necessary. The RFI Final Report shall describe the procedures, methods, and results of all facility investigations of SWMUs and AOCs and their releases, including information on the type and extent of contamination at the facility and/or off-site, sources and migration pathways, and actual or potential receptors. The RFI final report will include a comparison of media specific hazardous constituents with their corresponding action levels. The Summary Report shall describe more briefly the

procedures, methods, and results of the RFI.

(d) Following submission of the Reports set forth in Module Condition E.7.(a) and E.7.(b), subsequent activities for the Report shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Report comments, as appropriate; and

(ii) Submission of a revised Report to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Report to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Report comments from the Commissioner).

(e) After the Commissioner approves the RFI Final Report and Summary Report, the Permittee shall mail the approved Summary Report to all individuals on the facility mailing list established by the Permittee, within thirty (30) calendar days of receipt of approval.

8. Compliance Schedule For Current Interim Corrective Measures

Not Applicable

9. Compliance Schedule For Corrective Measures Study ("CMS") Scope of Work.

(a) Should a CMS be required, the Commissioner shall notify the Permittee in writing. This notice shall identify the hazardous constituent(s) which have exceeded the action level(s) as well as those which have been determined to threaten human health and the environment given site-specific exposure conditions or due to additive exposure risk. The notification shall specify target cleanup levels for hazardous constituents detected in each medium of

concern, and may also specify corrective measure alternatives to be evaluated by the Permittee during the CMS.

(b) The Commissioner may require a Corrective Measures Study ("CMS") under the following conditions:

(i) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air exceed their corresponding individual action levels; or

(ii) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air do not exceed their corresponding individual action levels, but additive exposure risk due to the presence of multiple constituents is not protective of human health; or

(iii) If the concentrations of hazardous constituent in groundwater, surface water/sediment, soil, or air do not exceed corresponding individual action levels, but still pose a threat to human health or the environment, given site-specific exposure conditions.

(c) Not Applicable

(d) The CMS will be considered complete upon completion of Tasks I through IV required by the CMS Guidance included in Appendix III-C of this Permit Module. Within sixty (60) calendar days after a notification required by Module Condition E.9.(a) that a CMS is required, the Permittee shall complete Task I and submit to the Commissioner a Task I report and documents, if any, relevant to other Tasks.

(e) The Permittee shall submit for approval a CMS Plan to the Commissioner within sixty (60) calendar days after a notification required by Module Condition E.9.(a) that a CMS is required pursuant to Module Conditions C.6., D., and/or E.4(b), and prior to Permit issuance for the SWMU(s)/AOC(s) listed in Module Condition E.9.(c).

(i) The CMS Plan shall provide:

(1) A description of the general approach to investigating and evaluating potential corrective measure;

(2) A definition of the overall objectives of the study;

(3) The specific plans for evaluating corrective measure to ensure compliance with corrective measure standards;

(4) The schedules for conducting the study; and

(5) The proposed format for the presentation of information.

(ii) The CMS Plan must address, at a minimum, all necessary activities to complete Tasks II and III required by the CMS Guidance included in Appendix III-C of this Permit Module.

(f) Following submission of the CMS Plan set forth in Module Condition E.9.(e), subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Commissioner).

(g) Within sixty (60) calendar days upon approval of CMS Task I report, the Commissioner may make a determination that the CMS Plan needs to be modified

based on data gathered in the Task I report.

10. Compliance Schedule For Corrective Measures Study Implementation. No later than thirty (30) calendar days after the Permittee has received written approval from the Commissioner for the CMS Plan, the Permittee shall begin to implement the CMS according to the schedules specified in the CMS Plan. The CMS shall be conducted in accordance with the approved Plan submitted pursuant to Module Condition E.9..

11. Compliance Schedule For Corrective Measures Study Final Report.

(a) Within forty-five (45) calendar days after the completion of the CMS, the Permittee shall submit for approval a CMS Final Report (Task IV) to the Commissioner. The CMS Final Report shall:

(i) Summarize the results testing program required by Task VI of the Guidance for RFI in Appendix III-B of this Permit Module;

(ii) Provide a detailed description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meets the standards set forth in Module Condition E.12(a).

(iii) Present all information gathered under the approved CMS Plan; and

(iv) Contain any additional information to support the Commissioner in the corrective measure selection decision-making process, described under Module Condition E.12.

(b) The CMS Final Report (Task IV) must address, at a minimum, all items necessary to demonstrate completion of Tasks II and III required by the CMS Guidance included in Appendix III-C of this Permit Module.

(c) Following submission of the CMS Report set forth in Module Condition E.11(a), subsequent activities for

the Report shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss the Report comments, as appropriate; and

(ii) Submission of a revised Report to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary the Permittee shall submit a revised Report to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Report comments from the Commissioner.)

(d) As specified under Module Condition E.9.(a), based on preliminary results and the CMS Final Report, the Commissioner may require the Permittee to evaluate additional corrective measures or particular elements of one or more proposed corrective measures.

12. Corrective Measure(s) Selection.

(a) Based on the results of the documents submitted under Module Condition E.7. for the RFI, under Module Condition E.11. for the CMS, and any further evaluations of additional corrective measures under this study, the Commissioner shall select the corrective measure(s) that at a minimum will meet the following standards:

(i) Be protective of human health and the environment;

(ii) Attain media cleanup standards selected by the Commissioner during the corrective measures selection process;

(iii) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent

practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

(iv) Meet all applicable waste management requirements.

(b) In selecting the corrective measure(s) which meets the standards for corrective measures established under Module Condition E.12.(a), the Commissioner shall consider the following evaluation factors, as appropriate:

(i) Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

(1) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents:

(2) The type and degree of long-term management required, including monitoring and operation and maintenance;

(3) Potential for exposure of humans and environmental receptors to remaining hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(4) Long-term reliability of the engineering and

institutional controls, including uncertainties associated with land disposal of untreated hazardous wastes, including hazardous constituents, and their residuals; and

(5) Potential need for replacement of the corrective measure(s).

(ii) Reduction of toxicity, mobility or volume. A potential corrective measure(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes, including hazardous constituents. Factors that shall be considered in such assessments include:

(1) The treatment processes the corrective measure(s) employs and materials it would treat;

(2) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(3) The degree to which the treatment is irreversible;

(4) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents; and

(5) All concentration levels of hazardous waste, including hazardous constituents, in each medium that the corrective measure(s) must achieve to be protective of human health and the environment.

(iii) The short-term effectiveness of a potential corrective measure(s) may be assessed considering the following:

(1) Magnitude of reduction of existing risks;

(2) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measure(s), including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment; and

(3) Time until full protection is achieved.

(iv) Implementability. The ease or difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:

(1) Degree of difficulty associated with constructing the technology;

(2) Expected operational reliability of the technologies;

(3) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(4) Availability of necessary equipment and specialists;

(5) Available capacity and location of needed treatment, storage and disposal services; and

(6) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).

(v) Cost. The types of costs that may be assessed include the following:

(1) Capital costs;

(2) Operation and maintenance costs;

(3) Net present value of capital and operation and maintenance costs; and

(4) Potential future corrective measure costs.

13. Permit Modification for Corrective Measure(s).

(a) Based on information the Permittee submits in the RFI and Summary Reports, under Module Condition E.7, the CMS Final Report under Module Condition E.11., and other information, the Commissioner will select the corrective measure(s) and initiate a permit modification to this Permit, pursuant to 6NYCRR 373-1.7(b) and 6NYCRR 621.14. The modification will specify the selected corrective measure(s) and include, at a minimum the following:

(i) Description of all technical features of the corrective measure(s) that are necessary for achieving the standards for corrective measures established under Module Condition E.12.(a), including length of time for which compliance must be demonstrated at specified points of compliance;

(ii) All media cleanup standards for hazardous constituents, selected by the Commissioner, that the corrective measure(s) must achieve to be protective of human health and the environment;

(iii) All requirements for achieving compliance with these cleanup standards;

(iv) All requirements for complying with the standards for management of wastes;

(v) Requirements for removal, decontamination, closure or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s);

(vi) A schedule for initiating and completing all major technical features and milestones of the corrective measure(s); and

(vii) Requirements for submission of reports and other information.

(b) By April 1st of each year after this Permit has been modified, the Permittee shall demonstrate in writing to the Commissioner financial assurance for completing the approved corrective measures.

14. Modification of the Compliance Schedules.

(a) If at any time the Permittee determines that modification of any Compliance Schedule of this Permit Module, including Appendix III-D, is necessary because such schedules cannot be met, the Permittee must:

(i) Notify the Commissioner in writing within fifteen (15) calendar days of such determination; and

(ii) Provide an explanation why the current schedule cannot be met.

(b) The Commissioner shall notify the Permittee in writing of the final decision regarding the Permittee's proposed modification to the Compliance Schedule.

(c) Modifications to the Compliance Schedule pursuant to this procedure does not constitute a reissuance of this Permit.

(d) All other modifications to this Permit Module must be made in accordance with Module I, Condition H, of this Permit.

15. Corrective Action Through Post-Closure.

Not Applicable

16. Corrective Action Through Closure

On the basis of the Closure Plan submitted January 15, 1990 and its revisions, pursuant to New York State Part 373 Regulations, the closure process for the 14 inactive tanks No. 15, 107, 173, 123, 124, 125, 127, 139, 140, 141, 142, 143, 157B, 53B and 257 shall be completed pursuant to the State's Part 373 Regulations. Any in-place

contaminated media (e.g. soil, groundwater) shall be handled through the Corrective Action Module.

17. Corrective Measures Implementation

(a) Corrective Measures Program.

The Permittee is currently conducting a Corrective Measures Program to monitor, collect, and treat contaminated groundwater. The current Corrective Measures Program is addressing remediation in the following Areas of Concern (AOCs): Area A, Area B, Area C, Area D, and the deeper bedrock. A location map containing the Areas of Concern is included Appendix III-F of this Permit Module.

The Corrective Measures Program involves the operation of four (4) groundwater collection and treatment systems and the monitoring of a previously remediated landfill (Area C). The GW collection and treatment systems are referred to as the Central Carbon, Area (A), Area (B), and Area (D) treatment systems and are described below.

Chemicals detected and confirmed within the upper aquifer are listed in Table III-10, (Appendix III-G of this Permit Module). The chemicals which exceeded the Groundwater Cleanup Standard are listed in Table III-9. The "Key Compounds" (compounds with the highest concentrations and the greatest areal distribution) will be used to determine plume boundaries. The "Key Compounds" are Tetrachloroethene, Vinyl Chloride, Trichloroethene, Freon TF, and cis-1,2-Dichloroethene. The Areas of Concern and their associated "Key Compounds" are contained in Table III-8.

Deep Bedrock Containment and Treatment System.

The purpose of the on-site deep bedrock production well system and the associated central carbon treatment system is to control and contain contaminated bedrock groundwater thus preventing off-site migration and to treat this groundwater for process and/or potable water use.

The contamination, primarily Tetrachloroethene, Trichloroethene, cis-1,2-Dichloroethene, and Freon TF, is located in the bedrock underlying the central portion of the facility (B/308, B/309, B/310, B/316, B/320, B/322, B/323, B/330 and B/334). The bedrock formation is the Stockbridge or Wappinger Limestone (Dolostone) formation with a thickness of approximately 1000 feet. The contamination of the bedrock aquifer is primarily associated with chemical handling in Area A and Area C (landfill and B/330). Contamination found in the bedrock has migrated through the sediment and till into the bedrock.

This treatment system/containment system consists of eight production wells (PW) which collectively create a large cone of depression within the bedrock aquifer. The result is a controlled influence over the flow of contaminated groundwater in the bedrock toward the production wells. Production Wells 2, 4, and 7 are pumped continuously. Production wells 1, 5/5A, and 6 are pumped only as needed for water supply purposes and/or to maintain on-site gradients. Production well 9 is only pumped during water supply emergencies.

Discharge from each of the production wells is pumped through underground piping to the B/316 central carbon system, (Appendix III-H of this Permit Module). The central carbon system consists of an influent blend tank and four (4) trains of activated carbon. Each granular activated carbon (GAC) train consists of two (2) 20,000 pound activated carbon units (down flow type) which are operated in series.

Presently, groundwater pumped from PWs 1, 4, 5/5A, 6, 7,and 9 is piped to the influent blend tank and then pumped into the GAC units. The treated groundwater is then delivered to the deionized water system (DI system) and to the raw water storage facilities. The water is then utilized for both process and potable use.

Discharge from production well 2 is treated in a

separate GAC system located in B/316. Two 20,000 pound carbon vessels are available for treating PW-2 water. However, at the present time only one of the carbon vessels is needed to treat the groundwater. The water is then used for process water or discharged to the Industrial Waste facility and/or to a tributary of Gildersleeve Brook (SPDES Permit #NY0005096, outfall #004, Appendix III-I of this Permit Module). Currently all water from PW-2 is being reused or discharged to the industrial waste facility.

The spent carbon from both treatment systems is transported off-site to a reactivation plant where the contaminants are removed and the carbon recycled.

Area A Treatment Facility.

The objective of the Area A treatment facility, (Appendix III-H of this Permit Module), is to contain and treat groundwater contaminated with volatile organic chemicals (VOCs), primarily 1,1,2,2-Tetrachloroethene (PCE), located throughout a glaciolacustrine/till layer in the vicinity of B/308, B/309 and B/310. Contamination in this area resulted from the handling of hazardous constituents from the mid 1960's to the mid 1970's.
Within this area groundwater is collected using a six foot diameter concrete sump which is joined to two 30 foot perforated drains. A 10 gpm suction pump with high-low level sensors removes water from the sump to a solvent separator. From the solvent separator, contaminated groundwater flows by gravity to a 5900 gallon influent storage tank. The contaminated groundwater is pumped via a 30 gpm centrifugal pump to the top of an air stripping tower. The effluent from the stripping tower is pumped to an effluent storage tank. Water from the effluent storage tank flows by gravity to an industrial waste transfer line.

The water is then blended with industrial waste at the industrial waste facility then discharged to the sanitary waste treatment facility. The treated

water from the sanitary waste treatment facility is discharged to Gildersleeve Brook (SPDES Permit # NY0005096, outfall #1, Appendix III-I of this Permit Module).

The Area A treatment plant is located within Building 384. Currently the facility processes an average rate of 1 gpm. The average influent chemical concentration to the treatment plant averages 40,000 ug/L. The average effluent concentration from the Area A Treatment Plant is less than 100 ug/L of volatile organic compounds.

Area B Treatment Facility.

The purpose of the Area B treatment facility, (Appendix III-H of this Permit Module), is to contain and treat groundwater contaminated with PCE in the shallow bedrock adjacent to IBM Gate 4. Contamination in this area is associated with fire training operations from the late 1960's.

The design of the Area B treatment facility incorporates a 1/2 horsepower submersible pump installed in MW-863. Water is pumped from MW-863 through a particulate filter then through two 40 pound activated carbon cylinders. The treated water is then discharged to an upgradient leachfield as designated by plans submitted and approved under IBM's Order on Consent with the NYSDEC.

Currently, the contaminant concentration levels in MW-863 are approximately 5 ug/L of PCE and the average flow rate is 1.6 gpm. the effluent concentration is <0.5 ug/L of PCE. The flow rate is adjusted manually such that the amount of particulate material drawn into the well is minimized and a sufficient cone of depression is achieved.

When breakthrough is detected in the first carbon bed, two new cylinders are ordered and both cylinders are replaced.

Area D Treatment Facility.

The objective of the Area D treatment facility, (Appendix III-H of this Permit Module), is to contain and treat contaminated groundwater in the shallow unconsolidated sediments adjacent to the sanitary wastewater treatment facility. Contamination found in Area D resulted from fire training operations which occurred during the mid 1970's.

The Area D treatment facility utilizes a 1/3 HP submersible pump equipped with high and low level controls installed in MW-032. The contaminated groundwater is pumped to a sanitary waste manhole and fed into the head end of the sanitary wastewater treatment facility. Here the groundwater is combined with raw sanitary waste and treated industrial waste water. Water from this treatment plant is discharged to Gildersleeve Brook under IBM East Fishkill SPDES permit, outfall number #001.

Currently the contamination levels in the pumped well, MW-32 are DCE (cis-1,2-Dichloroethene) 2 ug/L, PCE 3 ug/L, and TCE (1,1,2-Trichloroethene) 14 ug/L. The average flow rate from Area D is approximately 5 gpm. Two compliance points have been established downgradient of this area at the western perimeter of the East Complex.

Area C Remediation Area (Landfill).

The Area C remediation program involved the removal of a construction debris landfill which had been determined to contain hazardous chemicals, primarily chlorinated hydrocarbons and Freon TF (Trichlorotrifluoroethane). In 1982, twenty-thousand cubic yards of material was removed and sent off-site to an approved landfill. The excavation was backfilled with clean soil and capped with clay. Contamination from the landfill has penetrated into the bedrock. Production Well #7 is pumped continuously to help contain any migration from the area and monitoring wells are constructed upgradient and downgradient of the landfill. All

water discharged from PW-7 is treated with GAC in the Central Carbon System.

Southeast Quadrant (SEQ).

This AOC is the former IBM East Fishkill contractor storage area. The primary contaminants in this area are 1,1,2,2-Tetrachloroethene, 1,1,2-Trichloroethene, and cis-1,2-Dichloroethene. Contamination in this AOC probably resulted from the handling of hazardous constituents during the 1970s. Two compliance points have been established downgradient of this area at the eastern perimeter of the facility and will be monitored by this Permit.

West Complex Detection Monitoring.

The objective of the groundwater monitoring program for the West Complex is to detect the presence of hazardous constituents which; (a) potentially could be due to the West Complex facility and/or (b) potentially could flow onsite from offsite as a result of IBM East Fiskill's production wells.

(b) Duration of Corrective Measures Program.

The Groundwater Monitoring Programs and the Corrective Measures Program as defined in this Permit Module, shall continue until sampling of the groundwater monitoring wells demonstrates that for a period of three (3) consecutive years of Post-Termination Monitoring in Module Condition E.17.(d)(4), the concentrations of hazardous constituents have not exceeded the Termination Criteria stipulated as Groundwater Cleanup Standards in Module Condition E.17.(c)(2) or groundwater background concentrations established pursuant to Module Condition E.17.(d)(2)(iii).

The Corrective Measures Program shall be continued for at least the duration of this Permit. The Permittee may request a review of the Programs on or about the anniversary date of the effective date of this Permit:

(1) The Permittee may make adjustments to the corrective measures systems installed at this facility that will facilitate or improve groundwater control or cleanup without the prior consent of the Commissioner. The Commissioner must be notified about any adjustments within forty-five (45) days of its implementation;

(2) Reductions in monitoring wells, parameters, sampling protocols and frequency may only be implemented with the Commissioner's written approval in accordance with Module IX, Condition C.6. of this Permit; and

(3) Any other request for modification must be made in accordance with Permit Module I, Condition I.

(c) Groundwater Monitoring Program.

(1) Description of Wells.

The Corrective Action Performance Monitoring Network shall consist of the monitoring wells listed in Sections 17(c)(1)(i) through 17(c)(1)(ix) below. The listing of monitoring wells and sample frequencies along with a location map shall be submitted as part of the Groundwater Monitoring Plan required by Module IX, Condition C of this Permit.

(i) Corrective Action Monitoring (CAM) Wells, Monitoring and Reporting Frequency.

The CAM wells will be sampled at a minimum semi-annually for those analytes listed in Module Condition E.17.(c)(2) (Table III-9). Data from the CAM wells shall be used to evaluate the status of the contaminant source and plume with respect to contaminant migration. The Permittee will use the data from these wells to construct maps showing an estimate of the limits of each of the contamination plumes. The approximate limit of each plume is defined as the median concentration equal to 5 ug/L of one key

compound or sum of key compounds. Those Key Compounds are as follows:

Table III-8

List of Key Compounds	
Area of Concern	**Key Compound**
Area A	Tetrachloroethene, Trichloroethene, and cis-1,2-Dichloroethene
Area B	Tetrachloroethene
Area C (Landfill) and (B/330)	Tetrachloroethene, Trichloroethene, cis-1,2-Dichloroethene, Vinyl Chloride, and Freon TF
Area D	Tetrachloroethene, Trichloroethene, and cis-1,2-Dichloroethene
B/322	Tetrachloroethene, Trichloroethene, cis-1,2-dichloroethene, Freon TF and Freon 123
Deep Bedrock	Tetrachloroethene, Trichloroethene, cis-1,2-dichloroethene, Freon TF

In addition, the Permittee will determine whether there has been a significant change in water quality for each well and its key compounds or combination of key compounds. This analysis will be provided in the Annual Report. Any additional compounds detected and confirmed above the Groundwater Cleanup Standard will be reported in the semi-annual reports.

(ii) Process Control for Treatment (PCT) Wells, Monitoring and Reporting Frequency.

The PCT wells will be used to detect significant changes in water quality (new compounds detected and/or significant change in concentration) in order to insure the adequacy of the treatment facilities. The Permittee will establish process control

limits (treatable compounds, treatable concentration range, design flow rate, and design mass loading) for each of the treatment facilities. The Permittee will notify the Commissioner within seven (7) days of detection and confirmation of a significant change in input concentration or chemical composition which jeopardizes the treatability of groundwater. Monitoring requirements for the PCT Wells will be satisfied by sampling monthly for those analytes in 373 Module III Table III-9.

(iii) Contaminant Reduction Monitoring (CRM) Wells, Monitoring and Reporting Frequency.

Analytical results from the CRM wells shall be used for evaluating the effectiveness of the remedial system with respect to contaminant reductions in the groundwater the CRM wells shall be monitored at a minimum semi-annually. Groundwater quality data obtained from these wells shall be used to compile concentration versus time plots of each well for selected constituents. In addition, these wells will be used to determine the mass of contaminants removed for each area of remediation and to provide a qualitative assessment of the source areas. The Permittee will report in writing annually to the Commissioner on the effectiveness of the corrective action program.

(iv) Point of Compliance (POC) Wells, Monitoring and Reporting Frequency.

The POC wells will be used to measure the water quality downgradient of an AOC where groundwater has been determined to flow across the compliance point. Monitoring requirements for the POC Wells will be satisfied by:

(1) Sampling the POC wells at a minimum quarterly for those constituents defined

in 373 Module III Table III-9;

(2) Monitoring all wells at the compliance point for all Appendix 33 constituents as contained in 6 NYCRR subpart 373-2 at least annually for a period of three (3) years. If the Permittee finds constituents from Appendix 33 in the groundwater that are not already identified in the permit as monitoring constituents, the Permittee will follow those steps set forth in Module Condition E.17(c)(3). Newly detected constituents shall be added to the sampling monitoring program in accordance with Module Condition E.17.(c)(3). After three (3) years, the facility may petition the Commissioner to suspend the Appendix 33 sampling requirements. Additional Appendix 33 samples will be required as part of the Termination Petition described in Module Condition E.17.(d)(3)(ii); and

(3) The Permittee will determine whether there is any statistically significant evidence of increased contamination at the compliance point. This analysis will be provided in the annual report.

(v) Background Monitoring (BGM) Wells, and Monitoring and Reporting Frequency.

The objective of the Background Monitoring Wells is to provide a qualitative basis of comparison relative to the Appendix 33 monitoring wells. Monitoring requirements for the Background Monitoring Wells will be satisfied by sampling at a minimum semi-annually. Samples from Background Monitoring Wells will be collected for Appendix 33 annually for three (3) years. Reporting will be semi-annually.

(vi) Hydraulic Effectiveness Monitoring (HEM) Wells, Monitoring and Frequency.

Water level (elevation) data at all onsite (Main Site and West Complex) monitor wells will be collected quarterly. This data will be used to determine the hydraulic effectiveness of remediation. Water level data shall be reported semi-annually. An interpretation of hydraulic effectiveness shall be provided in the annual report.

(vii) Appendix 33 Monitoring Wells, Monitoring and reporting Frequency.

Appendix 33 analysis will be performed and reported annually on representative wells. Appendix 33 analysis are to insure that all chemicals of concern are identified and properly monitored. Newly detected constituents shall be added to the sampling monitoring program in accordance with Module Condition E.17.(c)(3).

(viii) Detection Monitoring (DM) Wells, Monitoring and Reporting Frequency.

The objective of the Detection Monitoring wells is to detect contamination which potentially may be due to the West Complex facility and moving off site or to detect contamination which may be coming from off site onto the facility. The Detection Monitoring Wells will be sampled for those analytes in 373 Module III Table III-9. Sampling for the Detection Monitoring Wells will be satisfied by collecting a sample and reporting the results from each well semi-annually.

(ix) Interim Monitoring Program Wells (IMP), Monitoring and Reporting Frequency.

The objective of the IMP wells is to provide

data for investigative studies associated with Area C B/330 and Building 322. Water quality samples will be collected for organic and inorganic analysis to meet the needs of the investigation. All raw data collected and a project status will be reported in the semi-annual and annual monitoring reports until such time as these investigation are complete. That completion shall be based upon the Department approval.

Sampling for the Interim Monitoring Wells will be satisfied by collecting a sample from each well quarterly until the investigative studies has been completed. At which time the monitoring frequency will be reevaluated and amended.

(2) Routine Monitoring Parameters.

Each time groundwater samples are obtained from each monitoring well listed in Module Condition E.17.(c)(1)(i-v,viii-ix) the samples shall at a minimum be analyzed for the hazardous constituents listed in Table III-9 by the methods and with the associated method detection limits described in: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Third Ed., USEPA, 1986, an approved revision of SW-846 or other procedures approved by the Commissioner.

Table III-9

Chemical Constituents/Monitoring Parameters		
Constituents	**Method[1]**	**Conc.Limit (ug/L)[2]**
Benzene	8021*	0.7
Chlorobenzene	8021*	5.0
1,2-Dichlorobenzene[3]	8021*	4.7
1,2,3-Trichlorobenzene	8021*	5.0
1,2,4-Trichlorobenzene	8021*	5.0

Chemical Constituents/Monitoring Parameters		
Constituents	**Method[1]**	**Conc.Limit (ug/L)[2]**
1,3-Dichlorobenzene	8021*	5.0
1,4-Dichlorobenzene[3]	8021*	4.7
Dichlorodifluoromethane (Freon 12)	8021*	5.0
1,1-Dichloroethene (Vinylidene chloride)	8021*	5.0
Methylene Chloride	8021*	5.0
Ethylbenzene	8021*	5.0
Vinyl Chloride	8021*	2.0
1,2-Dichloro-1,2,2-trifluoroethane (Freon 123a)	8021*	5.0
1,1,2,2-Tetrachloroethene	8021*	5.0
Freon TF (Freon 113)	8021*	5.0
1,1,2-Trichloroethene (1,1,2-Trichloroethylene)	8021*	5.0
cis-1,2-Dichloroethene	8021*	5.0
Fluoride[4]	[5]	1500.0
Chromium (total)[6]	7191 or 6010	50.0
Zinc (total)[7]	6010	300.0
Arsenic[8]	7060	25.0

* Method 8010/8020 or 8040 may be substituted for Method 8021.
[1]....EPA Method SW-846
[2]....Groundwater Cleanup Standards for Corrective Measures
[3]....Note that the sum of 1,2-Dichlorobenzene and 1,4 dichlorobenzene must be less than or equal to 4.7 ug/L.
[4]....Area "A", Area "C" (B/330 Investigative Area), and B/322 Investigative Area.
[5]....Lachat 10-109-12-2-A.
[6]....Area "A"
[7]....Area "C"(B/330 Investigative Area)
[8]....Area B/322 Investigative Area.

The Commissioner shall review the monitoring parameter(s) and analytical methods established in Module Condition E.17.(c)(2) annually to determine if there is a need to revise, add, or delete a monitoring parameter and its analytical

method.

(3) Additional Monitoring Parameters.

If any additional hazardous constituents, as defined in 6NYCRR Part 373-2 Appendix 33, are identified to be present at concentrations at or above the method detection limits at the point of compliance wells or those otherwise designated for Appendix 33 Analyses as described by E.17.(c)(1)(iv) and E.17.(c)(1)(vii) of this Module, the following procedures shall be undertaken:

(i) The pertinent well(s) shall be resampled to confirm the presence of the additional hazardous constituent(s);

(ii) The pertinent constituent(s), concentration(s) and well(s) shall be reported to the Commissioner within seven (7) days of such confirmation;

(iii) If the presence of additional hazardous constituents are confirmed pursuant to Module Condition E.17.(c)(3)(i), the Permittee shall continue to monitor and report on the constituents for a period of at least two (2) consecutive groundwater samples in the well(s) where detected and confirmed, and

(iv) Any additional hazardous constituent(s) confirmed to be present in the groundwater shall be subject to Termination Criteria established pursuant to Module Condition E.17.(d)(2), and may be subject to routine monitoring pursuant to Module Condition E.17.(c)(2).

(d) Evaluation of The Corrective Measures Program.

The Corrective Measures Program has been implemented in order to reduce the concentrations of hazardous constituents to their respective Termination Criteria as stipulated in Module

Condition E.17.(d)(2). The Permittee shall report to the Commissioner on the effectiveness of the Corrective Measures Program annually. Groundwater monitoring results, piezometric levels, plume limit plots, pumping rates and volumes, contaminant recovery levels and treatment efficiency data shall be provided in reports pursuant to Module Condition E.17.(e). Monitoring data will be evaluated annually to determine whether the monitoring parameters continue to exceed the Termination Criteria. The hydraulic effectiveness monitoring will be submitted semi-annually. An evaluation and interpretation will be provided in the annual report. The following programs and procedures will be used to assess the data:

(1) Effectiveness Monitoring.

Effectiveness Monitoring is designed to determine the rate at which groundwater cleanup is occurring and to verify that all contaminated groundwater is controlled and contained on site. This monitoring will continue as described in Module Condition E.17.(c) et. seq. until Termination Monitoring begins. The Commissioner may require additional monitoring, well installations and corrective measures to be implemented as necessary to protect human health and the environment.

(i) Monitoring Contaminant Reduction Effectiveness.

The Permittee shall assess the effectiveness of the Corrective Measures Program to achieve Termination Criteria. The data from the semi-annual sampling of the CRM wells shall be compiled and reported on a semi-annual basis. On an annual basis, the data shall be compiled, analyzed and interpreted.

(ii) Monitoring Hydraulic Effectiveness.

The present corrective measures are designed to create a cone of depression capable of controlling and thereby capturing all contaminated groundwater associated with IBM

East Fishkill. This control incorporates the pumping of three (3) production wells (PWs 2, 4, and 7) continuously and (4) four other production wells (PWs 1, 5/5A, 6, and 9) as needed.

Hydraulic effectiveness monitoring shall involve measuring water levels in all onsite monitoring wells stipulated in Module Condition E.17.(c)(1)(vi) to evaluate the containment of contaminated groundwater to the IBM East Fishkill site. If the water level data (i.e. potentiometric maps) indicates that the cone of depression are insufficient to meet the remedial objectives of this Permit the Commissioner may require the Permittee to adjust the Corrective Measures Program.

(iii) Man-made Structure Evaluation.

The Permittee shall submit, within two hundred and seventy (270) days of Permit issuance, for approval, a work plan to address specific man-made structures which may effect the migration of hazardous contaminants. This evaluation will focus on those structures which may be acting as conduits for contaminant migration. The evaluation may include pipelines, old process lines, french drains, ditches, sewer lines, utility lines and building foundations. The evaluation must determine if any man-made structures are acting as a conduit for contamination migration and if these structures are affecting groundwater flow.

(2) Termination Criteria.

Termination Criteria shall be defined in terms of the concentration limits that are provided as Groundwater Cleanup Standards in Module Condition E.17.(d)(2)(i) or background concentrations established pursuant to Module Condition E.17.(d)(2)(iii).

(i) Groundwater Cleanup Standards for Corrective Measures.

The 373 Module III Table III-9 contains those hazardous constituents that have been identified and confirmed in the Permittee's groundwater at or above the Groundwater Cleanup Standard (median values). In addition to the constituents are the corresponding concentrations which have been established as Groundwater Cleanup Standards to serve as Termination Criteria.

(ii) Annual Review.

The Commissioner shall review the Groundwater Cleanup Standards established in Module Condition E.17.(d)(2)(i) annually to determine if there is a need to revise, add, or delete a constituent and its associated protection concentration.

(iii) Background Concentrations.

Upgradient monitoring wells E.17(c)(1)(v) have been selected specifically to provide a qualitative basis of comparison with Appendix 33 wells of E.17.(c)(1)(vii).

Background concentrations will be used in the Termination Criteria where natural, non-anthropogenic concentrations of hazardous constituents (i.e. trace metals such as iron) naturally exceed the Groundwater Cleanup Standard.

However, if pursuant to Module Condition E.17(d)(2), background concentrations or any additional hazardous constituent concentration(s) are to be used as Groundwater Cleanup Standards in the Termination Criteria, the following methods for determination shall be used:

(1) If analytical data exists for the

constituent(s) of concern from at least two (2) previous semi-annual sampling events at the upgradient well(s) in Module Condition E.17.(c)(1)(iii), then this data shall be used as initial background; or

(2) When data as described in Module Condition E.17.(c)(1)(iii) does not already exist, the Permittee shall sample the upgradient well(s) in Module Condition E.17.(c)(1)(iii) for at least two (2) consecutive semi-annual sampling rounds. Monitoring the upgradient well(s) shall occur at the same point-in-time as the sampling for the Corrective Action Monitoring Wells in Module Condition E.17.(c)(1)(i).

(iv) Comparison To Background Concentrations.

Background concentration(s) determined pursuant to Module Condition E.17(d)(2)(iii) and compared to concentrations of hazardous constituents determined in Module Conditions E.17(c)(1)(i) - (viii) will comply with one of the following statistical methods which will be protective of human health and the environment and will comply with performance standards set forth in Module Condition E.17.(d)(2)(v):

(1) A parametric analysis of variance followed by multiple comparisons procedures to identify statistically significant evidence of contamination;

(2) An analysis of variance based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination;

(3) A tolerance of prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and

the level of each constituent in each downgradient contaminant monitoring well is compared to the upper tolerance or prediction interval; or

(4) Another statistical method proposed by the Permittee and approved by the Commissioner.

(v) Statistical Method Performance Standards.

The statistical method selected by the Permittee and approved by the Commissioner shall comply with the following relevant performance standards:

(1) Statistical methods shall be appropriate for the distribution of hazardous constituents detected in the monitoring wells. If inappropriate for a normal theory test, data should be transformed or a distribution-free theory test should be used;

(2) A Type I error of no less than 0.01 for individual well comparison procedures must be maintained when used to compare an individual compliance well constituent concentration with background constituent concentrations or a Groundwater Cleanup Standard. A Type I experiment-wise error rate for each testing period shall be no less than 0.05 if a multiple comparisons procedure shall be used. However, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts;

(3) Permittee shall propose for approval by the Commissioner any tolerance interval or prediction interval considered by the Permittee for evaluating groundwater monitoring data. The proposal shall

present the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each hazardous constituent of concern;

(4) The statistical method selected by the Permittee shall account for data below the limit of detection; and

(5) The statistical method selected by the Permittee shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation of data.

(vi) Comparison To Groundwater Cleanup Standards.

Comparison of groundwater data, collected in accordance with Module Conditions E.17.(c)(1)(i) through E.17.(c)(1)(viii), to Groundwater Cleanup Standards, shall be made in accordance with statistical methods proposed by the Permittee in the Termination Plan submitted pursuant to Module Condition E.17.(d)(3)(i).

(3) Termination Monitoring.

Termination Monitoring may be proposed whenever the Permittee determines that the quality of the groundwater being monitored is approaching the Groundwater Cleanup Standards specified in Module Condition E.17.(c)(2)(i).

(i) Termination Plan.

The Permittee shall submit to the Commissioner for approval, a Termination Monitoring Plan prior to implementing such a Plan. That Plan shall describe the wells for which Termination Monitoring is proposed, the

monitoring program which shall be used to determine whether the Groundwater Cleanup Standards pursuant to this Permit have been achieved for all hazardous constituents throughout the groundwater plume of contamination, and proposed statistical methods to be used for making comparisons between downgradient monitoring data and Groundwater Cleanup Standards.

(ii) Termination Petition.

A petition to terminate operation of the Groundwater Corrective Measures system may be submitted to the Commissioner when the Groundwater Cleanup Standards, established pursuant to Module Condition E.17.(d)(2)(i), are met by the procedures set forth in Module Condition E.17.(d)(2)(vi) from twelve (12) consecutive quarterly monitoring results for the wells specified in the Termination Monitoring Plan, submitted pursuant to Module Condition E.17.(d)(3)(i). As part of the Termination Petition the Permittee shall submit a Post-Termination Monitoring Plan which contains details of a Post-Termination Monitoring Program as described under Module Condition E.17.(d)(4). Operation of the Groundwater Corrective Measures Program shall be terminated only after the Commissioner accepts and approves the Termination Petition.

(4) Post-Termination Monitoring.

Post-termination monitoring shall demonstrate that groundwater quality continues to meet Groundwater Cleanup Standards. Post-termination monitoring shall begin after the Commissioner's approval of the Termination Petition submitted pursuant to Module Condition E.17.(d)(3)(ii). Post-termination monitoring shall follow the program established in the approved Post-Termination Monitoring Plan and that program shall continue for a minimum of three (3) consecutive years

following the termination of corrective measures.

(e) Corrective Measures Reporting Requirements.

The Permittee shall report all monitoring results in accordance with the conditions provided in Permit Module IX, General Groundwater Monitoring Conditions.

18. **Corrective Measures Program Shut-Down Notification**

The Permittee shall provide written notification to the Commissioner whenever the Groundwater Corrective Measures Program is inoperable (i.e., shut-down) for a period of time that exceeds seven (7) consecutive days when the shutdown jeopardizes the containment of contaminated groundwater to the site. The Permittee shall also provide written notification to the Commissioner whenever the Groundwater Corrective Measures Program is inoperable for more than eight (8) days in any given thirty (30) day time period. Normal pump cycling between high and low water level triggers will not be included as Program down time for notification purposes. Such cycling shall be considered normal operation for the Program.

Written notifications shall address the reason(s) for the Program shut-down and, if appropriate, shall include planned or implemented remedies for restarting and continuing the Groundwater Corrective Measures Program.

19. **Corrective Measures Cost Estimate and Financial Assurance**

Article 27, Title 9, 6NYCRR 373-2.6(1) requires assurance of financial responsibility for completing corrective action. Appendix III-J contains the estimated costs for the Corrective Measures Program and a letter from IBM's chief financial officer on the financial test and corporate guarantee selected as the financial assurance mechanism. This statement will be updated and provided by IBM Corporate Headquarters by April 1 of each year.

20. **Corrective Measures Program Operation and Maintenance**

(a) The Permittee shall provide the Corrective Measures Program with necessary protective maintenance and replacement parts that ensures the design effectiveness

of the program and that minimizes the program downtime. The Permittee shall minimize program downtime due to equipment failure by providing replacement parts within seven (7) days after equipment failure occurs. The Permittee may petition the Commissioner for an extension of the time to provide replacement parts within the specified time frame.

(b) Within one hundred and eighty days (180) days from the effective date of this Permit, the Permittee shall submit to the Commissioner for approval an inspection and maintenance plan for the Corrective Measures Program stipulated in this Module. The plan shall address the groundwater recovery system and the treatment systems. The plan shall include a proposed inspection and maintenance chart to be utilized by the Permittee which addresses the following:

(i) Inspector's name and title;

(ii) Date and time of inspection;

(iii) Items addressed during inspection;

(1) Pumps;

(2) Blowers;

(3) Piping and valves;

(4) Stripping tower;

(5) Activated Carbon Adsorption System;

(6) Control and alarm system;

(7) Security;

(8) And any other item(s) necessary for the proper maintenance/operation of the groundwater recovery system and Treatment Systems.

(iv) Anticipated problems/maintenance for items addressed in (iii);

(v) Observations for each item addressed in (iii);

(vi) Date and type of repairs/maintenance for items addressed in (iii); and

(vii) Performance data.

(c) The plan shall specify the frequency of inspection for the recovery and treatment systems to be three times per week (3X/wk) unless the Permittee demonstrates that:

(i) A less frequent protective maintenance schedule is recommended by equipment manufacturer; and

(ii) An automated control and alarm system installed on the recovery and treatment units shall provide the Permittee with the necessary information on the units performance and operation to preclude (3x/wk) inspections.

373 Appendix III-D
Compliance Schedule

IBM Corporation
East Fishkill, Dutchess County
EPA I.D. No. NYD000707901

373 Appendix III-D
Compliance Schedule

IBM Corporation
East Fishkill, Dutchess County
EPA I.D. No. NYD000707901

I. Compliance Schedule For Interim Corrective Measures.

A. Pursuant to Module Condition B.6.(a), Permittee shall submit for approval an interim corrective measures study within thirty (30) calendar days following the date of the notification by the Commissioner requiring implementation of interim corrective measures.

B. Pursuant to Module Condition B.6.(b), Permittee shall submit for approval an interim corrective measures work plan within thirty (30) calendar days after notifying the Commissioner of a release or threatened release that poses a significant and immediate threat to human health or the environment.

II. Compliance Schedule For Reporting.

A. Pursuant to Module Condition B.8.(a), Permittee shall submit signed progress reports as specified in approved work plans of all activities conducted in accordance with the provisions of this Permit Module, beginning no later than thirty (30) calendar days after the Permittee is first required to begin implementation of any such requirement.

III. Compliance Schedule for Notification

A. Pursuant to Module III Condition B.10.(a), the Permittee shall provide written notice to the Commissioner within thirty (30) calendar days of confirmation that the facility releases of hazardous constituents in groundwater have migrated off-site in concentration that exceed action levels. The written notice to the Commissioner shall include a proposed plan to notify any person who owns or resides on the land which may overlie the contaminated groundwater.

B. Pursuant to Module III Condition B.10.(b), Permittee within fifteen (15) calendar days after discovering facility releases of hazardous constituents in air have or are migrated off-site, exceeding action levels in areas where residences or places at which continuous, long term exposure to the constituents are located, shall notify the Commissioner and initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.

IV. Compliance Schedule For Assessment of Newly Identified SWMUs and AOCs.

A. Pursuant to Module Condition C.1., Permittee shall notify the Commissioner, in writing, of any additional SWMU(s) and/or AOC(s) constructed prior to the issuance of this Permit and which are located outside of the Area of Concern listed in this Permit Module within fifteen (15) calendar days after discovery. In addition, pursuant to Module Condition C.1., Permittee shall notify the Commissioner, in writing semiannually, of any additional, newly identified SWMU(s) which were contructed prior to the issuance of this Permit and which are located within Area of Concern listed in this Module.

B. Pursuant to Module Condition C.2., Permittee shall submit a SWMU/AOC Assessment Report within thirty (30) calendar days after notifying the Commissioner of any additional SWMU(s) and/or AOC(s) which existed prior to this Permit and which are located outside of an Area of Concern. In addition, pursuant to Module Condition C.1., the Permittee shall sumit a SWMU/AOC Assessment semiannually for units constructed prior to this Permit and which are located within Areas of Concern.

C. Pursuant to Module Condition C.3., Permittee shall submit for approval a SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days after written notification by the Commissioner that a SWMU/AOC Sampling and Analysis Plan is necessary.

D. Pursuant to Module Condition C.4.(b), Permittee shall submit for approval revisions of the SWMU/AOC Sampling

and Analysis Plan within forty-five (45) calendar days after meeting with the Department to discuss Plan comments or within forty-five (45) calendar days after Permittee's receipt of Plan comments when no meeting is scheduled.

E. Pursuant to Module Condition C.4.(c), Permittee shall begin to implement the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval of the Plan.

F. Pursuant to Module Condition C.5., Permittee shall submit a SWMU/AOC Sampling and Analysis Report within sixty (60) calendar days of receipt by the Permittee of complete, validated analytical data generated under in the approved SWMU/AOC Sampling and Analysis Plan.

V. Compliance Schedule And Notification Requirements For Newly-Discovered Releases At SWMUs and AOCs.

A. Pursuant to Module Condition D., Permittee shall notify the Commissioner, in writing, of any newly-discovered releases at SWMUs and/or AOCs, no later than fifteen (15) calendar days after such discovery.

VI. Compliance Schedule For RFA-Sampling Visit (SV) Work Plan.

A. Pursuant to Module Condition E.2.(b), Permittee shall submit for approval an RFA-Sampling Visit Work Plan for the AOC(s) identified in Module Condition E.2.(a)(ii) within one-hundred and twenty (120) calendar days after the effective date of this Permit.

B. Pursuant to Module Condition E.2.(d), Permittee shall submit for approval revisions to the RFA-SV Work Plan set forth in Module Condition E.2.(b) within forty-five (45) calendar days after meeting with the Department to discuss Plan comments, or within forty-five (45) calendar days after Permittee's receipt of Plan comments when no meeting is scheduled.

VII. Compliance Schedule For RFA-SV Work Plan Implementation.

A. Pursuant to Module Condition E.3., Permittee shall

begin to implement the RFA-SV Work Plan according to the schedule made part of the approved RFA-SV Work Plan.

VIII. Compliance Schedule For RFA-SV Report.

A. Pursuant to Module Condition E.4.(a)., Permittee shall submit a report on the SV within sixty (60) calendar days of receipt by the Permittee of complete, validated analytical data generated under the approved RFA-SV Work Plan.

IX. Compliance Schedule For RCRA Facility Investigation ("RFI") Work Plan.

A. Pursuant to Module Condition E.5.(c).,The Permittee shall notify the Commissioner, in writing, within thirty (30) calendar days prior to the date when SWMU(s) and/or AOC(s) identified in Module Condition E.5.(b) and/or identified pursuant to Module Condition C.6. become accessible, Permittee shall submit for approval a RFI Task I and II reports and a Work Plan for the inaccessible SWMU(s) identified in Module Condition E.5.(b) and/or Module Condition C.6. no later than one-hundred and eighty (180) calendar days after the Permittee's written notification to the Commissioner that the SWMU(s) become accessible for such an investigation.

B. Pursuant to Module Condition E.5.(d)., Permittee shall submit for approval a RFI Task I Report within sixty (60) calendar days after written notification by the Commissioner than an RFI is required pursuant to Module Condition C.6, D., and/or E.4(b).

C. Pursuant to Module Condition E.5.(e)., Permittee shall submit for approval a RFI Task II Report for SWMU(s) and/or AOC(s) identified in Module Condition E.5(a) within one hundred and twenty (120) calendar days after the effective date of this Permit, and within ninety (90) days after written notification by the Commissioner than an RFI is required pursuant to Module Condition C.6., D., and/or E.4(b).

D. Pursuant to Module Condition E.5.(f)., Permittee shall

submit for approval an RFI Work Plan for characterizing the soil contamination at the SWMU(s) identified in Module Condition E.5.(a) within one-hundred and twenty (120) calendar days after the effective date of this Permit, and within ninety (90) days after written notification by the Commissioner than an RFI is required pursuant to Module Condition C.6., D., and/or E.4(b).

E. Pursuant to Module Condition E.5(f)(iv), if the Permittee determines any items of Tasks III through V of the RFI Scope of Work have been submitted, the Permittee shall request within thirty (30) calendar days of the effective date of the Permit, and/or within thirty (30) calendar days of notification by the Commissioner, that the Commissioner review for approval the Permittee's determination.

F. Pursuant to Module Condition E.5.(g)(ii)., Permittee shall submit for approval revisions to the RFI Work Plan within forty-five (45) calendar days after meeting with the Department to discuss Plan comments, or within forty-five (45) calendar days after Permittee's receipt of Plan comments when no meeting is scheduled.

X. Compliance Schedule For RFI Work Plan Implementation.

A. Pursuant to Module Condition E.6., Permittee shall begin to implement the RFI Work Plan within thirty (30) calendar days following written approval of the Plan.

XI. Compliance Schedule For RFI Final Report And Summary Report.

A. Pursuant to Module Condition E.7.(a)., Permittee shall submit for approval the RFI Final and Summary Reports addressing investigations implemented at the swmu(s)/aoc(s) listed in the Module Condition E.7.(a).

Table III-7
SWMUS

SWMU(s)/AOC(s)	MEDIA TO BE INVESTIGATED	COMPLIANCE SCHEDULE
Bldg 322 and Bldg 330	- Groundwater	Permittee shall submit semiannual RFI Progress Reports on groundwater monitoring activities carried-out pursuant to the RFI Groundwater Work Plans Approved February 24, 1994 and to the groundwater monitoring requirements in Module Condition E.17., Progress Reports are due sixty (60) calendar days following the end of a semmiannual reporting period. The first progress report shall include data collected from prior groundwater monitoring activities at these buildings, but which have not been submitted to the Department. These progress report submittals shall constitute the Final RFI Report for characterizing groundwater contamination at Buildings 322 and 330. The submittal of the last RFI Progress Report and RFI Summary Report on groundwater contamination shall be submitted coincidentally with the Final Summary RFI Reports on soil contamination at Building 322 and 330
Bldg 322 and Bldg 330	- Soil	Within sixty (60) calendar days of receipt by the Permittee of complete validated analytical data generated under approved Final RFI Work Plans
Bldgs 308/310	- Soil	
Bldgs 309/310	- Soil	

B. Pursuant to Module Condition E.7.(b)., Permittee shall submit for approval the RFI Final and Summary Reports within sixty (60) calendar days after receipt by the Permittee of complete, validated analytical data generated under the approved work plan.

C. Pursuant to Module Condition E.7.(d)(ii), Permittee shall submit for approval revisions to the RFI Final and Summary Reports within forty-five (45) calendar days after meeting with the Department to discuss Report comments, or within forty-five (45) calendar days when no meeting is scheduled.

D. Pursuant to Module Condition E.7.(e), Permittee shall mail the approved Summary Report to all individuals on the facility mailing list within thirty (30) calendar days of receipt of Report approval.

XII. Compliance Schedule For Current Interim Corrective Measures.

Not Applicable

XIII. Compliance Schedule For Corrective Measures Study ("CMS") Scope of Work.

A. Pursuant to Module Condition E.9.(d), Permittee shall submit a Task I Report and documents within sixty (60) calendar days after the written notification by the Commissioner for a CMS.

B. Pursuant to Module Condition E.9.(e), Permittee shall submit for approval a CMS Plan within sixty (60) calendar days after the written notification by the Commissioner for a CMS.

C. Pursuant to Module Condition E.9.(f)(ii), Permittee shall submit for approval revisions to the CMS Plan within forty-five(45) calendar days after meeting with the Department to discuss Plan comments, or within forty-five (45) calendar days when no meeting is scheduled.

XIV. Compliance Schedule For CMS Implementation.

A. Pursuant to Module Condition E.10., Permittee shall begin to implement the CMS Plan within thirty (30) calendar days following written approval of the Plan.

XV. Compliance Schedule For CMS Final Report.

A. Pursuant to Module Condition E.11.(a), Permittee shall submit for approval a CMS Final Report within forty-five (45) calendar days after completion of the CMS.

B. Pursuant to Module Condition E.11.(c)(ii), Permittee shall submit for approval revisions to the CMS Final Report within forty-five (45) calendar days after meeting with the Department to discuss Report comments or within forty-five (45) calendar days when no meeting is scheduled.

XVI. Compliance Schedule For Financial Assurance for Corrective Measure(s)

A. Pursuant to Module Condition E.13.(b), Permittee shall

demonstrate financial assurance for completing the approved corrective measure(s) by April 1st of each year after this Permit has been modified.

XVII. Modification of the Compliance Schedules

A. Pursuant to Module Condition E.14.(a)(i), Permittee shall submit proposed modification of any Compliance Schedule within fifteen (15) calendar days of determining that a schedule cannot be met.

373 APPENDIX III-J

Corrective Measures Cost Estimate and Financial Assurance

MODULE IX - GENERAL GROUNDWATER MONITORING CONDITIONS

A. Applicability

1. The Permittee shall comply with all applicable groundwater monitoring requirements set forth in 6NYCRR 373-2.6.

2. The Permittee shall modify the groundwater monitoring program, as necessary, to maintain compliance with any subsequent changes in 6NYCRR 373-2.6 within ninety (90) days after the effective date of such change.

3. The Permittee shall follow all appropriate Health and Safety Plans (as described in Condition D.3 of Module III of this Permit) when carrying out the Permit's groundwater monitoring activities, unless other requirements govern.

4. All activities specified in this Permit Module shall apply only to the groundwater monitoring program that is required by this Permit.

B. Permit Modification

If the Permittee determines that the monitoring programs required under this Permit no longer satisfy the requirements of the regulations, the Permittee shall, within ninety (90) days of such determination, submit an application for a Permit modification which describes the changes that will be necessary to maintain regulatory compliance at the site. The Commissioner may require the Permittee to perform additional sampling and install additional monitoring wells, as necessary, to maintain full characterization of hydrogeology and groundwater quality at the site.

C. Groundwater Monitoring Plan

In order to assure consistency in the groundwater monitoring programs, the Permittee shall, within one hundred and twenty (120) days from the effective date of this Permit, prepare and submit, to the Commissioner, a Groundwater Monitoring

Plan for each Solid Waste Management Unit where groundwater monitoring will be performed. The Plan must be prepared in accordance with the "RCRA Quality Assurance Project Plan Guidance", the "RCRA Groundwater Monitoring Technical Enforcement Guidance Document (EPA, November 1992)" and "SW-846". If appropriate, one plan may address two or more SWMUs. The following information should be addressed within the Plan:

1. Presampling Procedures that Describe:

   (a) Procurement, inspection, and calibration of equipment;

   (b) Procurement and preparation of sample bottles;

   (c) Storage and handling of sampling gear between uses;

   (d) Personal protective equipment needed for sampling;

   (e) Well purging techniques;

   (f) Water level measuring techniques; and

   (g) Laboratory notification/verification.

2. Sampling Procedures that Describe:

   (a) Use of sampling equipment;

   (b) Field measurements and calibration techniques;

   (c) Sampling parameters/sample handling techniques including:

      (i) sample containers to be used;

      (ii) sample preservation techniques;

      (iii) sample filtration techniques;

      (iv) order of sample collection;

      (v) sample labels;

(vi) sample storage;

(d) Field QA/QC...cleaning, blanks, duplicate measurements;

(e) Sample shipping and chain of custody procedures;

(f) Health and safety/personal protection measure; and

(g) Provisions for adequate disposal of purge water.

3. Laboratory Handling and Analytical Protocols

(a) Documentation of laboratory processing steps;

(b) Analytical methodologies for each parameter of interest;

(c) QA/QC protocols; and

(d) Reporting format.

4. Background Information for each Monitoring Well/Piezometer:

(a) Well log;

(b) Water level recovery rate of wells;

(c) Measuring point elevation;

(d) Normal purge volume of the wells;

(e) Background water quality values; and

(f) Development/redevelopment history of the wells.

5. Well Record

A well record for each well/piezometer that is updated after each sampling event. The well record must contain the following information:

(a) Well I.D. number and if possible designation as up or downgradient;

(b) Depth of well as installed and as measured (for exceptions see Module IX, Attachment A);

(c) Measuring point elevation;

(d) Depth to water;

(e) Water level elevation;

(f) Purge volume;

(g) Purge time (start/stop);

(h) Recharge time;

(i) Sampling time;

(j) Field parameters (temp., pH, S.C.);

(k) Physical condition of the well;

(l) Important field observations related to sample integrity;

(m) Names of sampling personnel;

(n) Weather conditions;

(o) Purge/sample date;

(p) Concentration of required monitoring parameters (This will be recorded within the well sampling record);

(q) Concentration of any other parameters analyzed (also recorded within the well sampling record); and

(r) Pertinent laboratory information (QA/QC problems, etc.).

6. Selection of Monitoring Wells and Sampling Frequency

The Plan must include a list of the wells that will be used to monitor each SWMU (or investigation area) and a

corresponding schedule which indicates the frequency at which each well will be monitored. The selected wells and frequencies must be capable of characterizing groundwater contamination as described in Section III B.1 of Appendix III-B to Module III of this Permit. If the groundwater monitoring network is not capable of such characterization, the network must be upgraded until such characterization is complete. On-going monitoring must include:

(a) Monitoring, at least semi-annually, at wells which define the horizontal and vertical extent of contamination for AOC within the facility perimeter; and

(b) Monitoring, at least quarterly, at wells which define the horizontal and vertical extent of contamination for AOC's that are not contained to the facility perimeter; and

(c) Monitoring, at least semi-annually, at a sufficient number of wells within the plume so as to be representative of contaminant behavior.

If the Permittee can demonstrate that the above objectives are being met, and that certain wells are providing information that is redundant or information that does not add to the technical understanding of contaminant characterization, the Permittee may submit a proposal for a reduction in the number of monitoring wells, or a reduction in the frequency of monitoring at certain wells. The Department shall review the submission and will determine modifications to be made to the monitoring program. The Permittee shall be notified of the Department's determination. The Permittee may submit such a proposal annually, beginning one year from the effective date of this Permit.

The Plan must be kept at IBM's East Fishkill facility. The Permittee shall ensure that all appropriate personnel, including outside contractors, have been properly trained in the application of the Groundwater Monitoring Plan and that the Plan is followed whenever groundwater samples are obtained at the site. The Plan

shall not be modified without prior approval by the Department.

D. Inability to Obtain Representative Samples

1. If the Permittee knows that a well is damaged or inaccessible, and therefore, the well can not provide representative samples or accurate piezometric values, the Permittee shall, within seven (7) days of such knoledge notify the Commissioner of the problem and propose a remedy. Within twenty-one (21) days of such knowledge the Permittee shall attempt to remedy the problem and, when appropriate, sample or resample the well. Within twenty-one (21) days of such knowledge, the Permittee shall, through written notice to the Commissioner, provide information which describes the nature of the problem.

   In addition, the notification shall contain:

   (a) A description of how the problem with the well has been rectified; or

   (b) A schedule for the rehabilitation or replacement of the well.

   If a problem with the well prevented the Permittee from obtaining a scheduled sample, a sample shall be obtained within twenty-one (21) days after the rehabilitation or replacement of the well.

2. If the Permittee knows that an error in either sampling or analytical methods has occurred, the samples shall be retaken within twenty-one (21) days of such knowledge.

3. If the Permittee ascertains that a well does not contain sufficient water for a representative sample due to regional conditions that lower water levels in monitoring wells sitewide (e.g. drought conditions) that well may go unsampled for one sampling event and water level measurements shall be taken monthly until the next scheduled sampling. If water level measurements taken during that period indicate that the well still does not contain sufficient water for a

representative sample, then the conditions set forth in D.1 of this section shall apply.

E. Well Maintenance Plan

All network monitoring wells shall be maintained in accordance with the Well Maintenance Plan presented in Attachment A of this Permit Module.

F. Collection of Groundwater Samples by NYSDEC

At the request of the Department, the Permittee shall allow the Department and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to the requirements of this Permit. Similarly, at the request of the Permittee, the Department will allow the Permittee or the Permittee's authorized representatives to take splits or duplicates of any samples collected by the Department. The Permittee shall provide for adequate disposal of purge water whenever samples are collected by the Department.

G. Well Construction

All groundwater monitoring wells installed after the effective date of this Permit, and pursuant to the requirements of this Permit, shall be constructed in accordance with the most recent RCRA requirements and guidelines. Workplans which include proposed well installations shall include a description of installation procedures, and materials to be used.

H. Reporting Requirements

(1) The Permittee shall submit to the Commissioner, on a semi-annually basis;

(a) A summary of all groundwater, surface water, and quality assurance/quality control analytical data that have become available since the previous semi-annual report. All pertinent montoring data required in Module III of this Permit will be submitted to the Department in a tabulated form. Any remaining data may be submitted to the Department in tabulated form on diskette.

(b) Quarterly groundwater elevation data (e.g., top of casing, depth to water, and static water level measurements), expressed in a tabulated form as required in Condition H.(1)(a) of this Permit Module.

(c) Monitoring Well survey data.

(2) The Permittee shall submit to the Commissioner, on a annual basis, a Groundwater Monitoring Status Report for each SWMU where groundwater is being monitored. If appropriate, a Groundwater Monitoring Status Report may address one or more SWMUs. The Report must summarize the previous year of data collected and activities performed with respect to the Groundwater Monitoring Program. Each report must include the following information:

a. A summary of all analytical results that have become available during the previous year.

b. Supporting QA/QC documentation, in accordance with the approved "Quality Assurance Project Plan", for quarterly and semi-annual analytical results.

c. All information recorded in the well record during the previous year including the sampling field data sheets.

d. Quarterly groundwater elevation data, expressed in tabulated form. Potentiometric contour maps must be prepared and reported. The maps must include a delineation of the zone of capture, or a statement expressing why this is not possible. In addition, the Permittee shall determine the groundwater flow rate and direction at least annually in accordance with 6NYCRR 373-2.6(i)(5).

e. An evaluation of contaminant migration.

(i) An evaluation shall include maps for all significant contaminants that include at a minimum those "Key Compounds" set forth in Module III Condition E.17.(c)(1)(i) of this

Permit. Isopleth maps shall be prepared annually which show the limit of each plume as defined Module III Condition E.17.(c)(1)(i) of this Permit.

(ii) An evaluation of factors influencing the plume movement, specific contaminant movement, and specific contaminant transformation (e.g., physical, biological, chemical, etc.)

(iii) Astatement regarding future contaminant movement.

f. Trendline plots for the Contaminant Reduction Monitoring Wells, as required by Module III Permit Condition E.17.(1)(iii).

g. Production or monitoring well maintenance activities planned or performed.

h. Summary of plans for installation of additional wells. Existing workplans may be referenced.

i. Summary of well installation activities performed since the last annual report. Include well logs, construction details, field data collected and surveyed well locations. Existing reports may be referenced.

j. Pumping well rates and volumes.

k. Contaminant recovery levels.

l. Treatment efficiency data.

m. Any other problems, activities planned.

n. An evaluation of the progress of the Corrective Action or Monitoring Program based on information provided in (a-n) above.

The first Groundwater Monitoring Status Report will be due within Two Hundred Seventy (270) days of the effective date of this Permit.

ATTACHMENT A

WELL MAINTENANCE PLAN

The monitoring well will be inspected for corrosion, damage to the lock, positive drainage (damage to the concrete apron, if applicable) and general integrity each time samples are collected. Total well depths will be measured annually for all wells sampled for water quality under this Permit with the exception of IBM East Fishkill's production wells and GW-863, GW-32, and B/384 sump which will not require total well depth data to determine the need for well redevelopment due to a build-up of silt. Any well which is in-filled with silt in excess of 1 foot or ten percent of the screened or open interval, whichever is greater, will be redeveloped prior to the next sampling round. Well numbers will be checked for legibility, and relabeled as necessary. Wells which are damaged beyond repair, or which become unusable for some other reason, shall be replaced, or an alternate well will be designated. If it becomes apparent that a well is not capable of providing representative samples, the Permittee shall respond in accordance with Condition D.1 of this Permit Module.

For Flush Mounted Wells:

Flush mounted wells will be maintained in accordance with the same requirements listed above. In addition, the inner casing of all flush mounted wells shall be capped with a water tight seal. The integrity of this seal shall be inspected each time the wells are sampled, and damaged or questionable seals shall be replaced as necessary.

MODULE IV - WASTE REDUCTION REQUIREMENTS

The Permittee shall comply with the requirements of Article 27, Title 9, Section 27-0908 of the New York State Environmental Conservation Law.

All reports and submittals required by Section 27-0908 to be submitted to the Commissioner shall be sent to the following addresses:

Two (2) copies to:

New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7252

Attention: Director, Bureau of Pollution Prevention
Division of Pollution Prevention & Waste Reduction

One (1) copies to:

New York State Department of Environmental Conservation
Region 3
21 S. Putt Corners Rd.
New Paltz, NY 12561

Attention: Regional Hazardous Substances Engineer

TABLE OF CONTENTS (continued)

17. Polychlorinated Biphenyls (B002, B003, B004, B005, B006, B007)

Polychlorinated biphenyl (PCB) waste is generated by removing PCB containing ballasts and other electrical articles from service. The decommissioned equipment is stored in containers within a concrete diked area inside Building 309.

Frequency of Analysis:	No analysis is conducted on this equipment as all sealed electrical devices are containerized and manifested off-site for proper disposal.
Parameters:	Not Applicable
Test Methods:	Not Applicable
Sampling Method:	Not Applicable

18. Electroplating Bath Reclaim Exchange Resins (F006, D004)

An ion exchange system is utilized to remove gold from the rinse waters associated with the electroplating of substrates and other parts. Although the manufacturing process is designed to not require the periodic changing of the bath itself, a contaminated bath may occasionally be processed through the ion exchange system. The spent exchange resins will be transported to Building 309 for storage prior to shipment off-site to the reclamation facility.

Table I-21 presents a typical profile of this waste stream.

Frequency of Analysis:	Annually
Parameters:	See Table I-22
Test Methods:	See Table I-22
Sampling Method:	Samples are collected using a scoop or trier in accordance with the procedures found in Section B - Quality Assurance/Quality Control Plan.

Table I-21

WASTE ANALYSIS PLAN
WASTE ELECTROPLATING BATH RECLAIM EXCHANGE RESINS
(F006, D004)

Parameter	Range of Composition
Arsenic	>5
Cyanide	--

Table I-22

WASTE ANALYSIS PLAN
WASTE ELECTROPLATING BATH RECLAIM EXCHANGE RESIN
(F006, D004)

Test Parameter	Method of Analysis	Method of Preservation	Parameter Applicability	Holding Time
Arsenic	ICP, Method 6010 or A.A.-Furnace Technique (alternate), Method 7060, SW-846	SW-846, Nov. 1986, Vol. IA, Chapter 3, Section 3.13 HNO_3 to pH<2	Arsenic-Contaminated Solids, Arsenic-Contaminated Equipment	6 months
Total Cyanide	Total and Amenable Cyanide (Colorimetric, Automated UV) Method 9012, SW-846	SW-846, Nov. 1986, Volume IC, Method 9012, Section 6.0, NaOH to pH≥12 Cool to 4°C	Cyanide-Potassium Ferrocyanide, Cyanide and Gold, Spent Electroplating Bath Solution	14days after preservation with NaOH
pH	pH Electrometric Measurement Method 9040, SW-846	SW-846, Nov. 1986, Volume 1C, Chapter 6, Section 6.1.3, Cool to 4°C	Cyanide-Potassium Ferrocyanide, Cyanide and Gold, Spent Electroplating Bath Solution	Analyze as soon as possible

Note: Method of Analysis and Method of Preservation will be in accordance with latest approved revisions to SW-846.

Table I-21 (continued)

INTERNATIONAL BUSINESS MACHINES - EAST FISHKILL FACILITY
SAMPLE COLLECTION PROCEDURES

Waste Stream	Type of Container/Tank	Sampling Device	Sampling Procedure
Waste Polyimide	55 gallon drum	COLIWASA	See Section 4.1 of QA/QC Plan
Polychlorinated Biphenyls	55 gallon drum	Not applicable	Not applicable
Electroplating Bath Reclaim Exchange Resins	55 gallon drum	Scoop or Trier	See Sections 4.3 or 4.4 of QA/QC Plan

* If appropriate, this waste stream will be sampled for analysis utilizing a scoop or trier. Otherwise, this waste will be appropriately manifested for off-site disposal based on the knowledge of the process that generated this waste.

2. Emergency Coordinator

The first link in the Emergency Response Procedure is the person discovering the emergency. This person must immediately notify the Emergency Control Department at 4-3333. Emergency Control will then call the following list of Emergency Coordinators or Alternates until one of the individuals is contacted:

EMERGENCY COORDINATORS

TITLE	WORK PHONE	HOME PHONE
Primary Coordinator	914-894-9273	914-896-8603
Alternate Coordinator	914-293-9395	914-223-5951
Alternate Coordinator	914-892-9000	914-485-2536

The Emergency Coordinator (primary or alternate) is responsible for overseeing the entire hazardous waste emergency response effort. This individual has the designated authority to commit IBM resources to carry out the Contingency Plan for control of the emergency. The Emergency Coordinator will contact other site personnel as necessary.

3. Implementation

This Contingency Plan will be implemented whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents that is an imminent or actual emergency and which may be harmful to human health or the environment.

INTRODUCTION

This Closure Plan has been developed for Room 23, located inside the Chemical Storage Building, Building 309, at the IBM Corporation, East Fishkill Facility. The facility is located along Route 52 in East Fishkill, New York. Production centers around the manufacture of semi-conductor devices.

The plan has been prepared in accordance with CFR 265.112 of the Hazardous Waste and Consolidated Permit Regulations and with 6 NYCRR Part 373, Requirements for Hazardous Waste Management Facilities. These regulations were promulgated by the United States Environmental Protection Agency (USEPA), pursuant to the Resource Conservation and Recovery Act of 1976 (RCRA); and by the New York State Department of Environmental Conservation (NYSDEC), pursuant to Article 27, Title 9 of the Environmental Conservation Law.

The general location of the room is shown in Figure 1. The room is designated as a Containerized Hazardous Waste Storage Area. The types of wastes stored in this room include: potassium ferricyanide and cyanide (D002, D003), cyanide and gold (F007), cyanide solids (D003), gold filters and solids contaminated with cyanide (D003), and arsenic contaminated solids (D004) and electroplating bath reclaim exchange resins (F006, D004). Most of these wastes are generated in other buildings at the facility and are drummed and delivered to Building 309. Wastes delivered in smaller non-shipping containers are consolidated into drums and stored until shipped off site. It should be noted that the types of wastes stored in this room of the time of closure could be different than those described above.

The room measures approximately 30 feet by 50 feet. Its floor is coated with a chemical resistant material and is sloped toward a 500-gallon sump in the center of the room. A spill trench is provided in the floor near the room entrance. The trench is covered with metal grating. The room is equipped with an automatic sprinkler system and ventilation, and is suitable for storage of reactive, ignitable, or incompatible wastes.

Table VII-1 (continued)

BUILDING 309 CONTAINER STORAGE ROOM

Room	Type of Waste	EPA Code	Max. No. of. Drums*	Container Size**	Container Material**	Quantity of Hazardous Waste Typically Stored in CSA (No. of Containers)
9	Polychlorinated Biphenyls	B002, B003 B004, B005 B006, B007	224	55 gal.	steel	Approx. 55/55 gallon
	Shipment Staging Area	Various***				
23	Cyanide Waste	D002, D003, D004, F007	150	55 gal.	steel	Approx. 55/55 gallon
	Arsenic Contaminated Waste	D004				
	Mixed Arsenic Waste	D004				
	Miscellaneous Solid Hazardous Waste	Various***				
	Miscellaneous Liquid Hazardous Waste	Various***				
	Electroplating Bath Reclaim Exchange Resins	F006, D004				

*Equivalent capacity based on 55-gallon drum containers.

**Typical containers in use; additional containers may be used.

***Materials in this category will be properly coded based on knowledge and/or laboratory results at the time of shipment.

****Materials to be included in lab packs are transported to CSA room #7 where all lab-pack operations are conducted.

IBM International Business Machines Corporation

Office of the Director
Corporate Environmental Programs

Route 100, Somers, New York 10589

March 31, 1995

Ms. Margaret O'Neil
New York State Department
of Environmental Conservation
Div. of Hazardous Substances Regulations
50 Wolf Road, Room 204
Albany, NY 12233-7253

03

Subject: Financial Assurance for Closure of Hazardous Waste Facilities and Liability Coverage

Dear Ms. O'Neil:

Pursuant to the financial requirements promulgated under New York State Article 23, Title 23 and Article 27, Titles 7 and 9 Environmental Conservation Law, Subparts 373-2 and 373-3 (Title 6), please find the following enclosed:

1) A letter signed by IBM's chief financial officer, worded as specified in 6 NYCRR 373-2.8(j)(9);

2) A copy of IBM's 1994 Annual Report which includes on page 35 a copy of IBM's Independent Certified Public Accountant's report on examination of the IBM Corporation's financial statements for the latest completed fiscal year; and,

3) A special report from IBM's Independent Certified Public Accountant to the IBM Corporation stating that:

   a) He has compared the data which the letter from the Chief Financial Officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statement; and,

   b) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

A:0328AC04

The data submitted demonstrates the IBM Corporation's financial ability to close, care for, and to provide liability coverage at the following locations:

IBM Corporation
1701 North Street
Endicott, NY 13760
EPA ID No.: NYD002233039

IBM Corporation
Route 52
Hopewell Junction, NY 12533
EPA ID No.: NYD000707901

IBM Corporation
Neighborhood Road
Kingston, NY 12401
EPA ID No.: NYD001359694

IBM Corporation
South Road
Poughkeepsie, NY 12602
EPA ID No.: NYD080480734

IBM Corporation
Route 134
Yorktown, NY 10598
EPA ID No.: NYD084006741

IBM Corporation
Route 17C East
Owego, NY 13827
EPA ID No.: NYD986874501

If you have any questions regarding IBM's submission, please contact Aaron Cobb at (914) 766-2714.

Very truly yours,

Wayne S. Balta

WSB/df
Encl

International Business Machines Corporation

Office of the Senior Vice President
and Chief Financial Officer

Armonk, New York 10504-1783

March 31, 1995

Commissioner
Department of Environmental Conservation
Attn: Division of Hazardous Substances Regulation

I am the chief financial officer of International Business Machines Corporation, Old Orchard Road, Armonk, New York 10504. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in 6 NYCRR 373-2.8 and 373-3.8.

1. The firm identified above is the owner or operator of the following facilities for which liability coverage for sudden accidental occurrences is being demonstrated through the financial test specified in 6 NYCRR 373-2.8 and 373-3.8:

IBM Facility	Address	EPA ID No.
E. Fishkill	Route 52 Hopewell Jct., NY 12533	NYD000707901
Endicott	1701 North Street Endicott, NY 13760	NYD002233039
Kingston	Neighborhood Road Kingston, NY 12401	NYD001359694
Owego	Route 17C East Owego, NY 13827	NYD986874501
Poughkeepsie	South Road Poughkeepsie, NY 12602	NYD080480734
Yorktown	Route 134 Yorktown, NY 10598	NYD084006741

2. The firm identified above guarantees, through the guarantee specified in 6 NYCRR 373-2.8 and 373-3.8, liability coverage for sudden accidental occurrences at the following facilities owned or operated by the following: NONE.

3. For facilities not located in New York, this firm is demonstrating liability coverage for sudden accidental occurrences at the following facilities through the use of a test equivalent or substantially equivalent to the test specified in Subpart H of 40 CFR Parts 264 and 265:

IBM Facility	Address	EPA ID No.
Austin	11400 Burnett Road Austin, TX 78758	TXD041470543
Boca Raton	1000 NW 51 St. Boca Raton, FL 33431	FLD079810008
Boulder	6300 Diagonal Highway Boulder, CO 80302	COD001883164
Burlington	1000 River Road Essex Jct., VT 05452	VTD002084705
Manassas	10100 Nokesville Road Manassas, VA 22110	VAD064872575
Raleigh	3039 Cornwallis Road Research Triangle Park Raleigh, NC 27709	NCD041463761
Rochester	605 Highway 52N Rochester, MN 55901	MND006161756
San Jose	5600 Cottle Road San Jose, CA 95193	CAD990843989

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in 6 NYCRR 373-2.8 and 373-3.8. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

IBM Facility	Address	EPA ID No.	Closure Estimate ($)
E. Fishkill	Route 52 Hopewell Jct., NY 12533	NYD000707901	5,784,000
Endicott	1701 North Street Endicott, NY 13760	NYD002233039	926,000 **39,900,000
Kingston	Neighborhood Road Kingston, NY 12401	NYD001359694	1,690,000 * 333,000 **22,542,000

IBM Facility	Address	EPA ID No.	Closure Estimate ($)
Owego	Route 17C East Owego, NY 13827	NYD986874501	* 402,000 ** 15,180,000
Poughkeepsie	522 South Road Poughkeepsie, NY 12602	NYD080480734	784,000 ** 29,973,000
Yorktown	Route 134 Yorktown, NY 10598	NYD084006741	230,000 ** 9,100,000

* (Post-closure)
** (Corrective Action)

2. The firm identified above guarantees, through the guarantee specified in 6 NYCRR 373-2.8 and 373-3.8, the closure and post-closure care of the following facitilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: NONE.

3. For facilities not located in New York, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure or post-closure cost estimates covered by such a test are shown for each facility:

IBM Facility	Address	EPA ID No.	Closure Estimate ($)
Austin	11400 Burnett Road Austin, TX 78758	TXD041470543	599,000 * 898,000 ** 2,754,000
Boca Raton	1000 NW 51 St. Boca Raton, FL 33431	FLD079810008	165,000
Boulder	6300 Diagonal Highway Boulder, CO 80302	COD001883164	375,000
Burlington	1000 River Road Essex Jct., VT 05452	VTD002084705	1,658,000 **36,600,000
Manassas	10100 Nokesville Road Manassas, VA 22110	VAD064872575	1,545,000
Raleigh	3039 Cornwallis Road Research Triangle Park Raleigh, NC 27709	NCD041463761	400,000 ** 5,682,000

IBM Facility	Address	EPA ID No.	Closure Estimate ($)
Rochester	605 Highway 52N Rochester, MN 55901	MND006161756	520,000 ** 2,295,000
San Jose	5600 Cottle Road San Jose, CA 95193	CAD990843989	23,385,000 **33,100,000

* (Postclosure)
** (Corrective Action)

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to USEPA or New York or other states through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: NONE.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144 (see 6 NYCRR 370.1(e)). The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: NONE.

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1994.

Alternative II

		($ in Millions)
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)		$ 237
2. Amount of annual aggregate liability coverage to be demonstrated		2
3. Sum of lines 1 and 2		239
4. Current bond rating of most recent issuance and name of rating service	Standard & Poor's	A
	Moody's	A3
	Duff & Phelps	A
	Fitch Investors Svc.	A
5. Date of issuance of bond	6/15/93	
6. Date of maturity of bond	6/15/2000, 6/15/2013	

IBM Facility	Address	EPA ID No.	Closure Estimate ($)
Rochester	605 Highway 52N Rochester, MN 55901	MND006161756	520,000 ** 2,295,000
San Jose	5600 Cottle Road San Jose, CA 95193	CAD990843989	23,385,000 **33,100,000

* (Postclosure)
** (Corrective Action)

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to USEPA or New York or other states through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: NONE.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR Part 144 (see 6 NYCRR 370.1(e)). The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: NONE.

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1994.

Alternative II

		($ in Millions)
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)		$ 237
2. Amount of annual aggregate liability coverage to be demonstrated		2
3. Sum of lines 1 and 2		239
4. Current bond rating of most recent issuance and name of rating service	Standard & Poor's	A
	Moody's	A3
	Duff & Phelps	A
	Fitch Investors Svc.	A
5. Date of issuance of bond	6/15/93	
6. Date of maturity of bond	6/15/2000, 6/15/2013	

1177 Avenue of the Americas
New York, NY 10036

Telephone 212 596 7000
Facsimile 212 596 8910

Price Waterhouse LLP

March 31, 1995

Mr. Jerome B. York
Senior Vice President and Chief Financial Officer
International Business Machines Corporation
Old Orchard Road
Armonk, New York I0504

Dear Mr. York:

We have audited the consolidated financial statements of International Business Machines Corporation and its subsidiaries (the "Company") for the year ended December 31, 1994, and have issued our report thereon, dated January 20, 1995. Our audit was conducted in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Our audit included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation.

As a supplement to our audit, we have, at your request, compared the data related to Items 7, 8 and 11 in the Alternative II section of the Company's March 31, 1995 filing with the New York State Department of Environmental Conservation, to accounting records that were subject to review during the course of our audit.

Because the foregoing procedures do not constitute an audit conducted in accordance with generally accepted auditing standards, we do not express an opinion on any of the items referred to above. As a result of these procedures, however, no matters came to our attention that caused us to believe that the data related to Items 7, 8 and 11 required adjustment. Had we performed additional procedures or had we conducted an audit of these items in accordance with generally accepted auditing standards, matters might have come to our attention that would have been reported to you.

This letter is intended solely for the purpose of submission to the New York State Department of Environmental Conservation.

Very truly yours,

Price Waterhouse LLP

New York State Department of Environmental Conservation
21 South Putt Corners Road, New Paltz, NY 12561-1696
(914) 256-3000 - Division of Regulatory Services
FAX (914) 255-3042

Michael D. Zagata
Commissioner

May 11, 1995

MR JOSEPH M HOGAN
IBM CORP EAST FISHKILL FACILITY
ROUTE 52 B/300, Z44A
HOPEWELL JUNCTION NY 12533-0999

Re: SPDES Permit Modification (#NY-0005096)
IBM East Fishkill Facility
DEC Permit #3-1328-00025/00001-0

Dear Mr. Hogan:

Enclosed is a modified page 7 of 11 which corrects a typographic error for iron at outfall 004. The units for iron are corrected to read milligrams per liter (mg/l) and not micrograms per liter (μg/l).

All other terms and conditions remain as written in the April 13, 1995 permit modification. Please replace page 7 of 11 with the enclosed, revised page. Thank you.

Sincerely,

William E. Steidle
Deputy Regional Permit Administrator
Region 3

WES/WRS/ll

Enclosure - modified page 7 of 11

cc: w/enclosure
J. Marcogliese
R. Hannaford (3505)
J. Harrington (3505)
Dutchess County health Dept.
EPA - NYC District

Hogan3.ltr

ACTION LEVEL REQUIREMENTS (TYPE I)

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

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

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

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

Outfall Number & Effluent Parameter	Action Level	Units	Minimum Monitoring Requirements: Measurement Frequency	Sample Type
001 - Process & Sanitary				
Iron, Total	2.5	mg/l	Quarterly	24-hr. Comp.
Molybdenum, Total	3.75	mg/l	Quarterly	24-hr. Comp.
Nickel, Total	.9	mg/l	Quarterly	24-hr. Comp.
Silver, Total	.1	mg/l	Quarterly	24-hr. Comp.
Bromoform	6	µg/l	Quarterly	Grab
Chloroform	23	µg/l	Quarterly	Grab
Dichlorobromomethane	21	µg/l	Quarterly	Grab
Dichlorodifluoromethane	7	µg/l	Quarterly	Grab
004 - Storm Runoff & Treated Groundwater				
Methylene Chloride	50	µg/l	Monthly during Period of Treated Groundwater Discharge	Grab
Trichlorofluoromethane	50	µg/l	"	Grab
Cis-1,2-Dichloroethylene	50	µg/l	"	Grab
1,1,1-Trichloroethane	50	µg/l	"	Grab
Trichloroethylene	50	µg/l	"	Grab
1,1,2,2-Tetrachloroethane	50	µg/l	"	Grab
1,1,2-Trichloro-1,2,2-Trifluoro-ethane	50	µg/l	"	Grab
Iron, Total	2.2	mg/l	Monthly During Period of Storm Event Discharge	Grab

91-20-2 (1/89)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

Industrial Code: 3471
Discharge Class (CL): 03
Toxic Class (TX): T
Major Drainage Basin: 13
Sub Drainage Basin: 04
Water Index Number: H-95-9
Compact Area:

SPDES Number: NY-0005096
DEC Number: 3-1328-00025/00002-0
Effective Date (EDP): 05/01/93
Expiration Date (ExDP): 05/01/98
Modification Date(s): April 13, 1995 WES
Attachment(s): General Conditions (Part II) Date: 11/90

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

PERMITTEE NAME AND ADDRESS Attention: Larry Freed

Name: International Business Machines Corp.
Street: Route 52
City: Hopewell Junction State: NY Zip Code: 12533
is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: IBM Corp. - East Fishkill Facility
Location (C,T,V): East Fishkill (T) County: Dutchess
Facility Address: 1580 Route 52
City: Hopewell Junction State: NY Zip Code: 12533
NYTM - E: . NYTM - N: 4 .
From Outfall No.: 001 at Latitude: 41° 32′ 26" & Longitude: 73° 49′ 53"
into receiving waters known as: Guildersleeve Brook Class: C(T)
and; (list other Outfalls, Receiving Waters & Water Classifications)

002-007, 016-034 Tributary to Guildersleeve Brook	D
008-011, 035-049 Guildersleeve Brook	C(T)
013 Groundwater	GA
014, 050 Wiccoppe Creek	C(T)

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

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: IBM Corp.
Street: 1580 Route 52 B/300 Z/44A
City: Hopwell Junction State: NY Zip Code: 12533
Responsible Official or Agent: Joseph M. Hogan Phone: (914)894-9273

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

DISTRIBUTION:
J. Marcogliese/E. Zicca
R. Hannaford (3505)
J. Harrington (3505)
Dutchess Co. Health Dept.
EPA-NYC District

Permit Administrator: William E. Steidle
Address: 21 South Putt Corners Rd.
New Paltz, NY 12561-1696
Signature: [signature] Date: 4/13/95

Modification Date: April 13, 1995

AL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning April 13, 1995

and lasting until May 1, 1998

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

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
001 - Process & Sanitary					
Flow	3	Monitor	MGD	Continuous	Recorded
Chromium, Total	NA	.5	mg/l	Weekly	24-hr. Comp.
Chromium, Hexavalent	NA	.11	mg/l	Weekly	24-hr. Comp.
Copper, Total	.2	.3	mg/l	Weekly	24-hr. Comp.
Cyanide, Total	NA	.08	mg/l	Weekly	24-hr. Comp.
Fluoride, Total	3.5	5.3	mg/l	Weekly	24-hr. Comp.
Lead, Total	.1	.2	mg/l	Weekly	24-hr. Comp.
Zinc, Total	NA	.36	mg/l	Weekly	24-hr. Comp.
Solids, Total Suspended	25	40	mg/l	Weekly	24-hr. Comp.
*BOD-5 Day	7	11.7	mg/l	Weekly	24-hr. Comp.
Ammonia as NH_3 (Apr-Oct)	1.4	Monitor	mg/l	Weekly	24-hr. Comp.
Ammonia as NH_3 (Nov-Mar)	3.0	Monitor	mg/l	Weekly	24-hr. Comp.
**Fecal Coliform	200	400	MPN/100 ml	Weekly	Grab
leable Solids	NA	.1	ml/l	Weekly	Grab
Chlorine Residual (in contact tank)	0.5 minimum		mg/l	Weekly	Grab
Chlorine, Total Residual	NA	.1	mg/l	Weekly	Grab
Dissolved Oxygen	***		mg/l	Weekly	Grab
pH (Range)	(6.5-8.5)		SU	Weekly	Grab
Copper, Dissolved	NA	Monitor	mg/l	Quarterly	24-hr. Comp.
Zinc, Dissolved	NA	Monitor	mg/l	Quarterly	24-hr. Comp.

* Analysis shall be by 17th edition, Standard Methods for the examination of Water and Wastewater, Procedure 5210 (5.e.6).

** Membrane filter method is acceptable.

*** Permittee must monitor and report the Daily Minimum, Daily Average, Daily Maximum and Dissolved Oxygen Concentration.

002, 003 - Storm Runoff					
Flow	NA	Monitor	gpd	Quarterly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Quarterly during period of disch.	Grab
004 - Storm Runoff & Treated Groundwater					
F w	NA	Monitor	gpd	Monthly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Monthly during period of disch.	Grab

Modification Date: April 13, 1995

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS
During the period beginning April 13, 1995
and lasting until May 1, 1998
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
005-011 - Storm Runoff					
Flow	NA	Monitor	gpd	Quarterly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Quarterly during period of disch.	Grab
013 - Sanitary to Septic System					
No Monitoring Required.					
014 - Oil Storage Containment					
Flow	NA	Monitor	gpd	Monthly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Monthly during period of disch.	Grab
017, 035, 043, 050 - Storm Runoff					
Flow	NA	Monitor	gpd	Quarterly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Quarterly during period of disch.	Grab
042 - Storm Runoff (Representative of 016, 018-034 and 036-042)					
Flow	NA	Monitor	gpd	Quarterly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Quarterly during period of disch.	Grab
048 - Storm Runoff (Representative of 044-048)					
Flow	NA	Monitor	gpd	Quarterly during period of disch.	Instantaneous
Oil & Grease	NA	15	mg/l	Quarterly during period of disch.	Grab
049 - Storm Runoff					
No Monitoring Required.					

NOTE 1: Sampling for outfall 042 shall be done in the unnamed tributary immediately prior to the confluence with Guildersleeve Brook.

NOTE 2: Sampling for outfall 048 shall be done at Gate 20.

Toxicity Testing Program
Tier 1 - Acute Test

The permittee shall implement an effluent toxicity monitoring program beginning on the effective date of this permit and lasting for a period of one year. A final determination regarding additional monitoring and/or implementation of a toxicity reduction evaluation will be made by the Department following the completion of this program and given to the permittee in writing by the Regional Water Engineer. The effluent toxicity monitoring program shall be as follows:

Outfall No.	Effluent Parameter	Units	Monitoring Requirements Measurement Frequency	Sample Type
001	Effluent Toxicity[a]	% Effluent[b]	c	d

(a) Effluent Toxicity shall mean the toxicity of the effluent in acute static renewal tests specified as Tier 1 testing in New York State Manual for Toxicity Testing of Industrial and Municipal Effluents, NYSDEC, February 1985. Both a vertebrate and invertebrate species shall be used for the tests. Dilution water shall be collected according to the Manual. Receiving water shall be used as dilution water unless the Department approves a different source. Effluent sampling and holding shall be done as outlined in Sections III-6 to III-8 of the Manual.

(b) The 48-hour EC_{50} in and 48-hour LC_{50} in % Effluent for both a vertebrate and an invertebrate species shall be determined and reported in accordance with the specified frequency. The 48-hour EC_{50} and 48-hour LC_{50} in % Effluent shall be compared to the calculated Instream Waste Concentration (IWC) of the effluent. If evaluation of multiple toxicity test results indicates likely toxicity, the Department may require the permittee to conduct chronic (Tier 2) testing or submit a Toxicity Reduction Evaluation (TRE) study proposal.

(c) Discharge monitoring requirements for effluent toxicity shall be quarterly during the one year period beginning on the effective date of this permit. The results of each toxicity test shall be submitted no later than 28 days following the end of each test period. These reports shall be submitted to the Regional Water Engineer at 200 White Plains Rd., 5th Floor, Tarrytown, NY 10591 and the Chief, Compliance Section, Bureau of Water Compliance Programs, 50 Wolf Road, Albany, NY 12233-3506.

(d) Monitoring of chemical and physical parameters limited in this permit shall be coordinated so that the resulting analyses are also representative of the sample used for toxicity testing.

Chlorinated Discharges:

Discharges which are chlorinated for the purpose of disinfection should be sampled prior to chlorination or be dechlorinated prior to toxicity testing evaluation. Discharges which use chlorination as part of the waste treatment process other than for disinfection purposes, for example oxidation of cyanide, should be sampled after the chlorination process and evaluated for toxicity.

Toxicity Testing Program
Tier 2 - Chronic Test

The permittee shall implement an effluent toxicity monitoring program beginning within 15 days after letter notification from the Regional Water Engineer. This monitoring program shall continue for a period of one year. A final determination regarding additional monitoring and/or implementation of a toxicity reduction evaluation will be made by the Department following the completion of this program and given to the permittee in writing by the Regional Water Engineer. The effluent toxicity monitoring program is as follows:

Outfall No.	Effluent Parameter	Units	Monitoring Requirements Measurement Frequency	Sample Type
001	Effluent Toxicity[a]	% Effluent[b]	c	d

[a] Effluent toxicity shall mean the toxicity of the effluent in chronic tests as specified in New York State Manual for Toxicity Testing of Industrial and Municipal Effluents, NYSDEC, February 1985. Both a vertebrate and invertebrate species shall be used for the tests. Dilution water shall be collected according to the Manual. Receiving water shall be used as dilution water unless the Department approves a different source. Effluent sampling and holding shall be done as outlined in Sections III-6 to III-8 of the Manual.

[b] The Maximum Allowable Waste Concentration (MAWC) in % Effluent for both a vertebrate and an invertebrate species shall be determined and reported. The MAWC in % Effluent shall be compared to the calculated Instream waste Concentration (IWC) of the effluent. The IWC in % Effluent shall be determined using the daily average effluent flow at the time of sampling and a critical receiving water flow of .17 cfs.

[c] Discharge monitoring requirements for effluent toxicity shall be quarterly during the one year period beginning on the effective date of this permit. The results of each toxicity test shall be submitted no later than 28 days following the end of each test period. These reports shall be submitted to the Regional Water Engineer, at 200 White Plains Rd., 5th Floor, Tarrytown, NY 10591 and the Chief, Compliance Section, Bureau of Water Compliance Programs, 50 Wolf Road, Albany, NY 12233-3506.

[d] Monitoring of chemical and physical parameters limited in this permit shall be coordinated so that the resulting analysis is also representative of the sample used for toxicity testing.

Chlorinated Discharges:

Discharges which are chlorinated for the purpose of disinfection should be sampled prior to chlorination or be dechlorinated prior to toxicity testing evaluation. Discharges which use chlorination as part of the waste treatment process other than for disinfection purposes, for example oxidation of cyanide, should be sampled after the chlorination process and evaluated for toxicity.

TOXICITY REDUCTION EVALUATION COMPLIANCE SCHEDULE

(a) Permittee shall perform a TRE as specified in this permit for the permit discharge(s) in accordance with the following schedule:

Outfall	Compliance Action	Due Date
001	Submission of a proposal for a Toxicity Reduction Evaluation (TRE)* study to the Department of Environmental Conservation, Bureau of Wastewater Facilities Design, 50 Wolf Road, Albany, New York 12233-3503.	45 days after letter notification from Regional Water Engineer

* The proposed TRE shall be directed towards identifying the source of the toxicity, describing procedures to reduce the toxicity to an acceptable level, identifying monitoring parameters suitable for insuring control of the toxicity, and proposing a schedule of compliance.

The TRE, including data findings and recommendations for corrective action, permit limits, and proposed self-monitoring requirements shall be submitted in a form similar to a wastewater facility engineering report. The Department will review the TRE and may redraft the permit to incorporate toxicity limits, monitoring requirements, and a schedule of compliance that will ensure acceptable toxicity levels of the effluent.

(b) The permittee shall submit to the Department of Environmental Conservation the document required in (a) above by the given date, and a written notice of compliance or noncompliance with the above schedule date postmarked no later than 14 days following that date. Each notice of the non-compliance shall include the following information:

1. A short description of the noncompliance;

2. A description of any action actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;

3. A description of any factors which tend to explain or mitigate the non-compliance; and

4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next schedule requirement on time.

ACTION LEVEL REQUIREMENTS (TYPE I)

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

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

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

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

Outfall Number & Effluent Parameter	Action Level	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
001 - Process & Sanitary				
·on, Total	2.5	mg/l	Quarterly	24-hr. Comp.
Molybdenum, Total	3.75	mg/l	Quarterly	24-hr. Comp.
Nickel, Total	.9	mg/l	Quarterly	24-hr. Comp.
Silver, Total	.1	mg/l	Quarterly	24-hr. Comp.
Bromoform	6	µg/l	Quarterly	Grab
Chloroform	23	µg/l	Quarterly	Grab
Dichlorobromomethane	21	µg/l	Quarterly	Grab
Dichlorodifluoromethane	7	µg/l	Quarterly	Grab
004 - Storm Runoff & Treated Groundwater				
Methylene Chloride	50	µg/l	Monthly during Period of Treated Groundwater Discharge	Grab
Trichlorofluoromethane	50	µg/l	"	Grab
Cis-1,2-Dichloroethylene	50	µg/l	"	Grab
1,1,1-Trichloroethane	50	µg/l	"	Grab
Trichloroethylene	50	µg/l	"	Grab
1,1,2,2-Tetrachloroethane	50	µg/l	"	Grab
1,1,2-Trichloro-1,2,2-Trifluoro-ethane	50	µg/l	"	Grab
Iron, Total	2.2	µg/l	Monthly During Period of Storm Event Discharge	Grab

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. The permittee shall develop and implement a Best Management Practices (BMP) plan, within one year of EDP to prevent, or minimize the potential for, release of significant amounts of toxic or hazardous pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; or drainage from raw material storage.

2. The permittee shall review all facility components or systems (including material storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; and sludge and waste disposal areas) where toxic or hazardous pollutants are used, manufactured, stored or handled to evaluate the potential for the release of significant amounts of such pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. For hazardous pollutants, the list of reportable quantities as defined in 40 CFR, Part 117 may be used as a guide in determining significant amounts of releases. For toxic pollutants, the relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

   The review shall address all substances present at the facility that are listed as toxic pollutants under Section 307(a)(1) of the Clean Water Act or as hazardous pollutants under Section 311 of the Act or that are identified as Chemicals of Concern by the Industrial Chemical Survey.

3. Whenever the potential for a significant release of toxic or hazardous pollutants to State waters is determined to be present, the permittee shall identify Best Management Practices that have been established to minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider typical industry practices such as spill reporting procedures, risk identification and assessment, employee training, inspections and records, preventive maintenance, good housekeeping, materials compatibility and security. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.

4. Development of the BMP plan shall include sampling of waste stream segments for the purpose of toxic "hot spot"* identification. The economic achievability of technology-based end-of-pipe treatment will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology.

5. The BMP plan shall be documented in narrative form and shall include any necessary plot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the BMP plan shall be maintained at the facility and shall be available to authorized Department representatives upon request. As a minimum, the plan shall include the following BMP's:

   a. BMP Committee
   b. Reporting of BMP Incidents
   c. Risk Identification and Assessment
   d. Employee Training
   e. Inspections and Records
   f. Preventive Maintenance
   g. Good Housekeeping
   h. Materials Compatibility
   i. Security

6. The BMP plan shall be modified whenever changes at the facility materially increase the potential for significant releases of toxic or hazardous pollutants or where actual releases indicate the plan is inadequate.

* A "hot spot" is a segment of an industrial facility; including but not limited to soil, equipment, material storage areas, sewer lines etc.; which contributes elevated levels of problem pollutants to the wastewater and/or storm water collection system of that facility. For the purposes of this definition, problem pollutants are substances for which end of pipe treatment to meet a water quality or technology requirement may, considering the results of wastestream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is adequately higher than the end of pipe concentration of that same pollutant so as to allow for an economically justify removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.

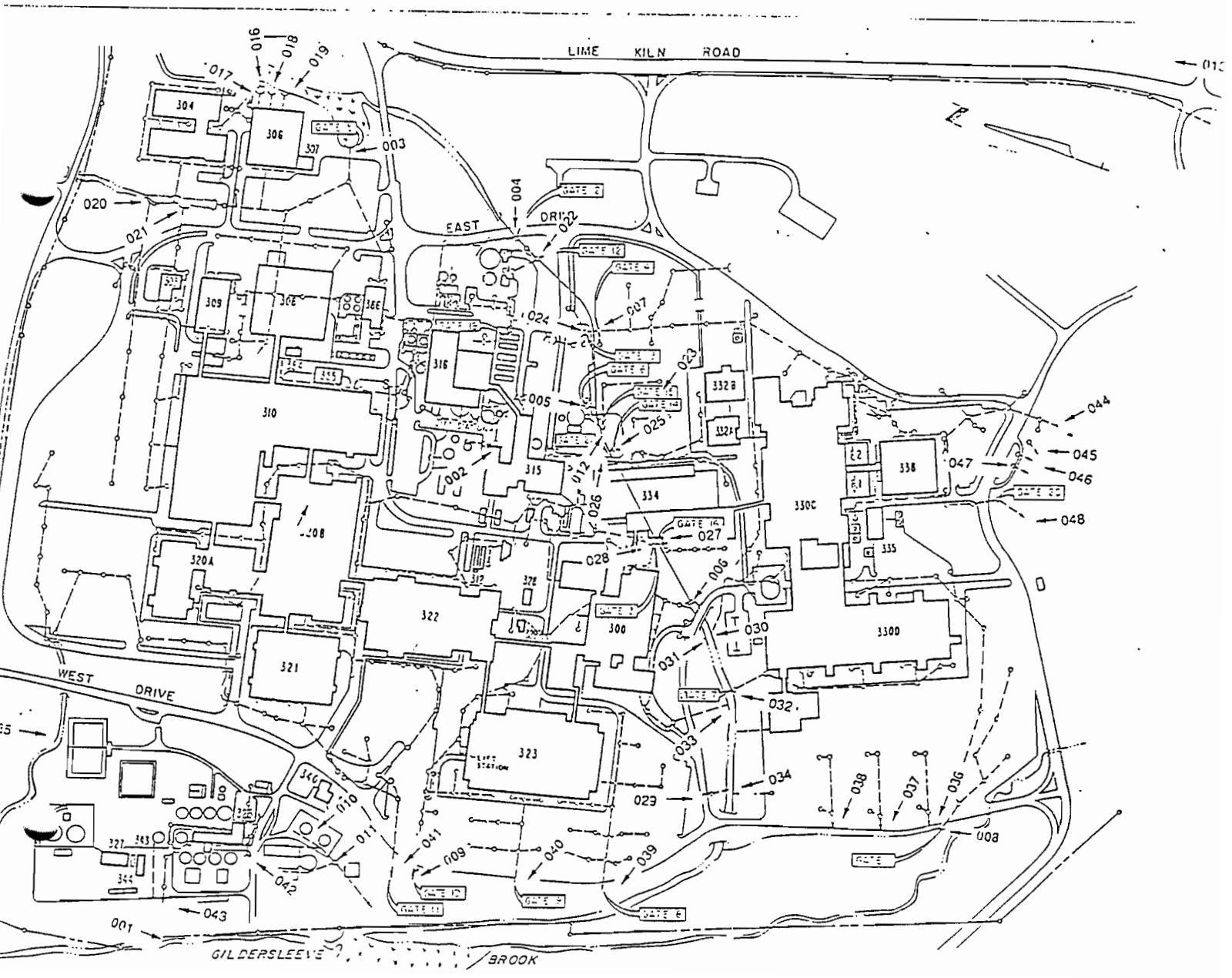
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

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

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

MONITORING LOCATIONS Outfalls 001 - 013, 016 - 048

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



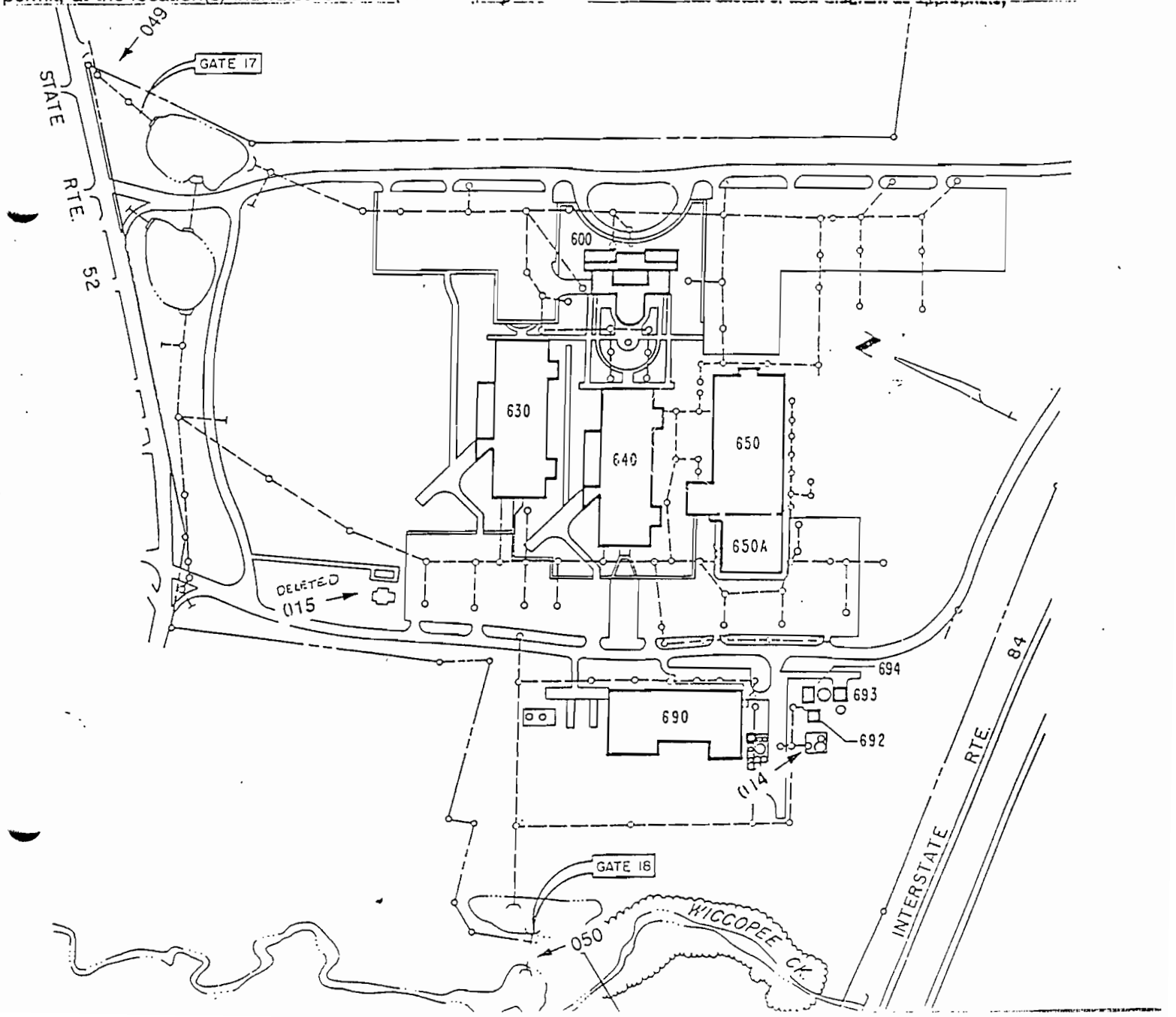
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

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

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

MONITORING LOCATIONS Outfalls 014, 049, 050

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



RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

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

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

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

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

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
50 Wolf Road
Albany, New York 12233-3506

Phone: (518) 457-3790

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

Department of Environmental Conservation
Regional Water Engineer
Region 3
200 White Plains Rd.
5th Floor
Tarrytown, NY 10591

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

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

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

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

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

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

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

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT

GENERAL CONDITIONS
(PART II)

1. GENERAL PROVISIONS

a. This permit, or a true copy, shall be kept readily available for reference at the wastewater treatment facility.

b. A determination has been made on the basis of a submitted application, plans, or other available information, that compliance with the specified permit provisions will reasonably protect classified water use and assure compliance with applicable water quality standards. Satisfaction of permit provisions notwithstanding, if operation pursuant to the permit causes or contributes to a condition in contravention of State water quality standards, or if the Department determines, on the basis of notice provided by the permittee and any related investigation, inspection or sampling, that a modification of the permit is necessary to prevent impairment of the best use of the waters or to assure maintenance of water quality standards or compliance with other provisions of ECL Article 17, or the Act, the Department may require such a modification and may require abatement action to be taken by the permittee and may also prohibit the noticed act until the permit has been modified.

c. All discharges authorized by this permit shall be consistent with the terms and conditions of this permit. Facility expansion or other modifications, production increases, product changes, product process modifications, and wastewater collection, treatment and disposal system changes which will result in new or increased discharges of pollutants into the waters of the state must be reported by submission of a new SPDES application, in which case the permit may be modified accordingly. The discharge of any pollutant, not identified and authorized, or the discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Facility modifications, process modifications, or production decreases which result in decreased discharges of pollutants must be reported by submission of written notice to the permit-issuing authority, in which case the permit-issuing authority may require the permittee to submit a new SPDES application.

d. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

e. If the discharge(s) permitted herein originate within the jurisdiction of an interstate water pollution control agency, then the permitted discharge(s) must also comply with any applicable effluent standards or water quality standards promulgated by that interstate agency.

f. The permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Environmental Conservation Law and the Clean Water Act and is grounds for: enforcement action; for permit suspension, revocation and modification; and for denial of a permit renewal application.

g. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information.

h. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

i. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

j. The Clean Water Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violations. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than three years, or both.

k. The filing of a request by the permittee for a permit modification, revocation, transfer, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

l. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, suspending, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

m. Nothing in this permit relieves the permittee from a requirement to obtain other permits required by law, including, but not limited to:

(1) an air contamination source permit/certification under 6NYCRR Part 201;

(2) a waste transporter permit under 6NYCRR Part 364; or

(3) a radioactive waste discharge permit under 6NYCRR Part 380.

2. SPECIAL REPORTING REQUIREMENTS FOR EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not specifically controlled in the permit, pursuant to General Provision 1 (c) herein. For the purposes of this section, recurrent accidental or unintentional spills or releases shall be considered to be a discharge on a frequent basis.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) 500 micrograms/liter;

(2) 1.0 milligram/liter for antimony;

(3) five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

(4) the level established by the Department in accordance with 40 CFR §122.44(f).

c. That they have begun or expect to begin to use, or manufacture as an intermediate or final product or by-product, any toxic pollutant which was not reported in the permit application under 40 CFR §122.21(g)(9) and which is being or may be discharged to waters of the state.

3. EXCLUSIONS

a. The issuance of this permit by the Department and the receipt thereof by the Applicant does not supersede, revoke or rescind an order or modification thereof on consent or determination by the Commissioner issued heretofore by the Department or any of the terms, conditions or requirements contained in such order or modification thereof unless specifically intended by said order.

b. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations; nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the discharge authorized.

c. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

d. Oil and hazardous substance liability: The imposition of responsibilities upon, or the institution of any legal action against the permittee under Section 311 of the Clean Water Act shall be in conformance with regulations promulgated pursuant to Section 311 governing the applicability of Section 311 of the Clean Water Act to discharges from facilities with NPDES permits.

4. MODIFICATION, SUSPENSION, REVOCATION

a. If the permittee fails or refuses to comply with any requirement in this permit, such noncompliance shall constitute a violation of the permit for which the Commissioner may modify, suspend, or revoke the permit after notice and opportunity for hearing and take direct enforcement action pursuant to law. When, at any time during or prior to a period for compliance, the permittee announces or otherwise lets it be known, or the Commissioner on reasonable cause determines, that the permittee will not make the requisite efforts to achieve compliance with an interim or final requirement, the Commissioner may modify, suspend or revoke the permit and take direct enforcement action pursuant to law, without waiting for expiration of the period for compliance with such requirements.

b. After notice and opportunity for a hearing, the Department may modify, suspend or revoke this permit in whole or in part during its term for cause including, but not limited to, the following:

(1) violation of any provision of this permit; or

(2) obtaining this permit by misrepresentation or failure to disclose fully all relevant facts at any time; or materially false or inaccurate statements or information in the application or the permit; or

(3) a change in any physical circumstances, requirements or criteria applicable to discharges,including, but not limited to:

(i) standards for construction or operation of the discharging facility;

(ii) the characteristics of the waters into which such discharge is made;

(iii) the water quality criteria applicable to such is made;

(iv) the classification of such waters; or

(v) effluent limitations or other requirements applicable pursuant to the Act or State Law.

(4) a determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification, a suspension, or revocation.

(5) violation of any order of the Commissioner or provision of ECL or regulation promulgated thereunder, which is related to the permitted activity.

(6) Newely discovered material information or material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of this permit.

c. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the Clean Water Act for a toxic pollutant and that a standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Department shall institute proceedings to modify the permit in order to achieve conformance with the toxic effluent standard or prohibition and in conformance with ECL 17-0809.

5. REPORTING NONCOMPLIANCE

a. Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

b. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written noncompliance report shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written noncompliance report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent the noncompliance and its reoccurrence.

(1) The following shall be included as information which must be reported within 24 hours under paragraph (b) above:

(i) any unanticipated bypass which violates any effluent limitation in the permit;

(ii) any upset which violates any effluent limitation in the permit;

(iii) violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iv) any unusual situation, caused by a deviation from normal operation or experience (e.g. upsets, bypasses, inoperative treatment process units, spills or illegal chemical discharges or releases to the collection system) which create a potentially hazardous condition.

(v) any dry weather overflow(s).

(2) The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(3) Reports required by this section shall be filed with the Department's regional office having jurisdiction over the permitted facility. During weekends, oral noncompliance reports, required by this paragraph, may be made at (518) 457-7362.

c. Other noncompliance. The permittee shall report all instances of noncompliance not otherwise required to be reported under this section or other sections of this permit, with each submitted copy of its Discharge Monitoring Reports until such noncompliance ceases. Such noncompliance reports shall contain the information listed in paragraph (b) of this section.

d. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. INSPECTION AND ENTRY

The permittee shall allow the Commissioner of the Department, the EPA Regional Administrator, the County Health Department, or their authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

a. enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, including records maintained for purposes of operation and maintenance;

c. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;

d. sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or Environmental Conservation Law, any substances or parameters at any location; and

e. enter upon the property of any contributor of wastewater to the system under authority of the permittee's Sewer Use Ordinance (municipalities) or Regulations.

7. TRANSFER OF PERMIT

a. A permit is transferable only with prior written approval of the Department.

b. To transfer a permit to a new owner or operator, written application must be made to the Department. Application for Permit Transfer forms can be obtained from, and must be submitted to, the appropriate regional office of the Department's Division of Regulatory Affairs.

c. In order for operation of the facility to continue without interruption, application must be made at least 30 days in advance of the transfer.

d. If, when the ownership or operation is transferred, the volume or composition of the facility discharge will be altered, a new application for permit may be required.

8. PERMIT RENEWAL

a. Any permittee who wishes to continue to discharge after the expiration date of a permit shall apply for renewal of its permit no later than 180 days prior to the permit's expiration date (unless permission for a later date has been granted by the Department) by submitting any forms, fees, or supplemental information which may be required by the Department. Upon request, the Department shall provide the permittee with specific information concerning the forms, fees, and supplemental information required.

b. When a permittee has made timely and sufficient application for the renewal of a permit or a new permit with reference to any activity of a continuing nature, the existing permit does not expire until the application has been finally determined by the Department, and, in case the application is denied or the terms of the new permit limited, until the last day for seeking review of the Department order or a later date fixed by order of the reviewing court, provided that this subdivision shall not affect any valid Department action then in effect summarily suspending such permit.

c. A municipality applying for a permit (renewal) shall submit evidence that it is enforcing an up-to-date enacted Sewer Use Ordinance which was approved by the Department.

d. A municipality applying for a permit (renewal) shall have an approved method of residuals disposal in compliance with Part 6-NYCRR 360 and 364.

e. A municipality receiving industrial waste shall submit evidence that it is operating (or implementing) its industrial pretreatment program in accordance with Part 6 NYCRR 651.53(f).

9. SPECIAL PROVISIONS - NEW OR MODIFIED DISPOSAL SYSTEMS **OR SERVICE AREAS**

a. Prior to construction of any new or modified waste disposal system or modification of a facility or service area generating wastewater which could alter the design volume of, or the method or effect of treatment or disposing of the sewage, industrial waste or other wastes, from an existing waste disposal system, the Permittee shall submit to the Department or its designated field office for review, an approvable engineering report, plans, and specifications which have been prepared by a person or firm licensed to practice Professional Engineering in the State of New York.

b. The construction of the above new or modified disposal system shall not start until the Permittee receives written approval of the system from the Department or its designated field office.

c. The construction of the above new or modified disposal system shall be under the general supervision of a person or firm licensed to practice Professional Engineering in New York State. Upon completion of construction, that person or firm shall certify to the Department or its designated field office that the system has been fully completed in accordance with the approved engineering report, plans and specifications, permit and letter of approval; and the permittee shall receive written acceptance of such certificate from the Department or designated field agency prior to commencing discharge.

d. The Department and its designated field offices review wastewater disposal system reports, plans, and specifications for treatment process capability only, and approval by either office does not constitute approval of the system's structural integrity.

10. MONITORING, RECORDING, AND REPORTING

10.1 GENERAL

a. The permittee shall comply with all recording, reporting, monitoring and sampling requirements specified in this permit and such other additional terms, provisions, requirements or conditions that the Department may deem to be reasonably necessary to achieve the purposes of the Environmental Conservation Law, Article 17, the Act, or rules and regulations adopted pursuant thereto.

b. Samples and measurements taken to meet the monitoring requirements specified in this permit shall be representative of the quantity and character of the monitored discharges. Composite samples shall be composed of a minimum of 8 grab samples, collected over the specified collection period, either at a constant sample volume for a constant flow interval or at a flow-proportioned sample volume for a constant time interval, unless otherwise specified in Part I of this permit. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. At least 4 (rather than 8) aliquots or grab samples should be collected over the specified collection period. Grab sample means a single sample, taken over a period not exceeding 15 minutes.

c. Accessable sampling locations must be provided and maintained. New sampling locations shall be provided if existing locations are deemed unsuitable by the Department or its designated field agency.

d. Actual measured values of all positive analytical results obtained above the Practical Quantitation Limit (PQL)[1] for all monitored parameters shall be recorded and reported, as required by this permit; except, where parameters are limited in this permit to values below the PQL, actual measured values for all positive analytical results above the Method Detection Limit (MDL)[2] shall be reported.

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1 Practical Quantitation Limit (PQL) is the lowest level that can be measured within specified limits of precision and accuracy during routine laboratory operations on most effluent matrices.

2 Method Detection Limit (MDL) is the level at which the analytical procedure referenced is capable of determining with a 99% probability that the substance is present. This value is determined in distilled water with no interfering substances present. The precision at this level is +/- 100%.

e. The permittee shall periodically calibrate and perform manufacturer's recommended maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements. Verification of maintenance shall be logged into the daily record book(s) of the facility. The permittee shall notify the Department's regional office immediately if any required instrumentation becomes inoperable. In addition, the permittee shall verify the accuracy of their measuring equipment to the Department's Regional Office annually.

f. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years per violation or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.

10.2 SIGNATORIES AND CERTIFICATION

a. All reports required by this permit shall be signed as follows:

(1) for a corporation: by a responsible corporate officer. For the purposes of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or a vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making function for the corporation, or

(ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars),if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) for a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) for a municipality, state, federal, or other public agency: by either a principal or executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or

(4) a duly authorized representative of the person described in items (1), (2), or (3). A person is a duly authorized representative only if:

(i) the authorization is made in writing by a person described in paragraph (a)(1), (2), or (3) of this section;

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(iii) the written authorization is submitted to the Department.

b. Changes to authorization: If an authorization under subparagraph (a)(4) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subparagrapph (a)(4) of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

c. Certification: Any person signing a report shall make the following certification:

"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 permit 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 for knowing violations."

d. The Clean Water Act provides that any person who knowingly makes any material false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.

10.3 RECORDING OF MONITORING ACTIVITIES AND RESULTS

a. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

b. Records of monitoring information shall include:

(1) the date, exact place, and time of sampling or measurements;

(2) the individual(s) who performed the sampling or measurements;

(3) the date(s) analyses were performed;

(4) the individual(s) who performed the analyses;

(5) the analytical techniques or methods used; and

(6) the results of such analyses.

10.4 TEST AND ANALYTICAL PROCEDURES

a. Monitoring and analysis must be conducted using test procedures promulgated, pursuant to 40 CFR Part 136, except:

(1) should the Department require the use of a particular test procedure, such test procedure will be specified in Part I of this permit.

(2) should the permittee desire to use a test method not approved herein, prior Department approval is required, pursuant to paragraph (b) of this section.

b. Application for approval of test procedures shall be made to the Department's Regional Permit Administrator (see Part 1, page 1 for address), and shall contain:

(1) the name and address of the applicant or the responsible person making the discharge, the DEC permit number and applicable SPDES identification number of the existing or pending permit, name of the permit issuing agency name and telephone number of applicant's contact person;

(2) the names of the pollutants or parameters for which an alternate testing procedure is being requested, and the monitoring location(s) at which each testing procedure will be utilized;

(3) justification for using test procedures, other than those approved in paragraph (a) of this section; and

(4) a detailed description of the alternate procedure, together with:

(i) references to published studies, if any, of the applicability of the alternate test procedure to the effluent in question;

(ii) information on known interferences, if any; and

(5) a comparability study, using both approved and the proposed methods. The study shall consist of 8 replicates of 3 samples from a well mixed waste stream for each outfall if less than 5 outfalls are involved, or from 5 outfalls if 5 or more outfalls are involved. Four (4) replicates from each of the samples must be analyzed using a method approved in paragraph (a) of this section, and four of the replicates of each sample must be analyzed using the proposed method. This results in 24 analyses per outfall up to a maximum of 120 analyses per permit. A statistical analysis of the data must be submitted that shall include, as a minimum:

(i) calculated statistical mean and standard deviation;

(ii) a test for outliers at the mean ± 3 standard deviations level. Where an outlier is detected, an additional sample must be collected and 8 replicates of the sample must be analyzed as specified above;

(iii) a plot distribution with frequency counts and histogram;

(iv) a test for equality among with-in sample standard deviation;

(v) a check for equality of pooled with-in sample variance with an F-Test;

(vi) a t-Test to determine equality of method means; and

copies of all data generated in the study.

Additional information can be obtained by contacting the Bureau of Technical Services & Research (NYSDEC, 50 Wolf Road, Albany, New York 12233 - 3502).

11. DISPOSAL SYSTEM OPERATION AND QUALITY CONTROL

11.1 GENERAL

a. The disposal system shall not receive or be committed to receive wastes beyond its design capacity as to volume and character of wastes treated, nor shall the system be materially altered as to: type, degree, or capacity of treatment provided; disposal of treated effluent; or treatment and disposal of separated scum, liquids, solids or combination thereof resulting from the treatment process without written approval of the Department of Environmental Conservation or its designated field office.

b. The permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (or related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes as a minimum, the following: 1) A preventive/corrective maintenance program. 2) A site specific action orientated operation and maintenance manual for routine use, training new operators, adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

c. When required under Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6NYCRR 650), sufficient personnel meeting qualifications for operators of sewage treatment works as required therein and additional maintenance personnel shall be employed to satisfactorily operate and maintain the treatment works.

d. The permittee shall not discharge floating solids or visible foam.

11.2 BYPASS

a. Definitions:

(1) "Bypass" means the intentional or unintentional diversion of waste stream(s) around any portion of a treatment facility for the purpose or having the effect of reducing the degree of treatment intended for the bypassed portion of the treatment facility.

(2) "Severe property damage" means substantial damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which would not reasonably be expected to occur in the absence of a bypass. Severe property damange does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations:

The permittee may allow any bypass to occur which does not cause effluent limitations to be violated, but only if it also is for essential maintenance, repair or replacement to assure efficient and proper operation. These bypasses are not subject to the provisions of pargraph (c) and (d) of this section, provided that written notice is submitted prior to bypass (if anticipated) or as soon as possible after bypass (if unanticipated), and no public health hazard is created by the bypass.

c. Notice:

(1) Anticipated bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least forty five (45) days before the date of the bypass.

(2) Unanticipated bypass - The permittee shall submit notice of an unanticipated bypass as required in Section 5, paragraph b. of this Part (24 hour notice).

d. Prohibition of bypass:

(1) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(i) bypass was unavoidable to prevent loss of life, personal injury, public health hazard, or severe property damage;

(ii) there were no feasible alternatives to the bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal period of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance or if designed and installed backup equipment which could have prevented or mitigated the impact of the bypass is not operating during the bypass; and

(iii) the permittee submitted notices as required under paragraph (c) of this section and, excepting emergency conditions, the proposed bypass was accepted by the Department.

11.3 UPSET

a. Definition:

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset:

An upset constitutes an affirmative defense to an action brought for noncompliance with such permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset:

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operation logs, or other relevant evidence that:

(1) an upset occurred and that the permittee can identify the cause(s) of the upset;

(2) the permitted facility was at the time being properly operated; and

(3) the permittee submitted notice of the upset as required in Section 5, paragraph b of this part (24 hour notice).

(4) the permittee complied with any remedial measures required under Section 5, paragraph d of this part.

d. Burden of proof:

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

11.4 SPECIAL CONDITION - DISPOSAL SYSTEMS WITH SEPTIC TANKS

If a septic tank is installed as part of the disposal system, it shall be inspected by the permittee or his agent for scum and sludge accumulation at intervals not to exceed one year's duration, and such accumulation will be removed before the depth of either exceeds one-fourth (1/4) of the liquid depth so that no settleable solids or scum will leave in the septic tank effluent. Such accumulation shall be disposed of in an approved manner.

11.5 SLUDGE DISPOSAL

The storage or disposal of collected screenings, sludges, other solids, or precipitates separated from the permitted discharges and/or intake or supply water by the permittee shall be done in such a manner as to prevent creation of nuisance conditions or entry of such materials into classified waters or their tributaries, and in a manner approved by the Department. Any live fish, shellfish, or other animals collected or trapped as a result of intake water screening or treatment should be returned to their water body habitat. The permittee shall maintain records of disposal on all effluent screenings, sludges and other solids associated with the discharge(s) herein described. The following data shall be compiled and reported to the Department or its designated field office upon request:

a. the sources of the materials to be disposed of;

b. the approximate volumes, weights, water content and (if other than sewage sludge) chemical composition;

c. the method by which they were removed and transported, including the name and permit number of the waste transporter; and

d. their final disposal locations.

12. CONDITIONS APPLICABLE TO A PUBLICLY OWNED TREATMENT WORKS (POTW)

12.1 GENERAL

a. All POTWs must provide adequate notice to the Department of the following:

(1) any new introduction of pollutants into the POTW from an indirect discharger which would be subject to sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(2) any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(3) For purposes of this paragraph, adequate notice shall include information on:

(i) the quality and quantity of effluent introduced into the POTW; and

(ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

b. Dry weather overflows are prohibited. The occurance of any dry weather overflow constitutes a bypass exceeding limitations as defined in Section 11.2 of this Part and shall be promptly abated and reported to the Department in accord with Section 5 of this Part. The permittee shall inspect all overflow facilities at least twice per year (once each spring and fall) during periods of dry weather flow to ensure they are functioning properly. Records of all inspections shall be maintained for inspection by the Department or its designated representative

c. The permittee shall identify all inflow to the tributary system and remove excessive infiltration/inflow to an extent which is economically feasible.

d. The permittee shall enact, maintain and enforce an up-to-date and effective Sewer Use Ordinance which has been approved by the Department.

e. New connections to a publicly owned sewer system or a privatized municipal sewer system are prohibited when the permittee is notified by the Department:

(1) that the discharge(s) regulated by this permit create(s) or is likely to create a public health or potential public health hazard, a contravention of water quality standards or the impairment of the best use of waters, as determined by the Commissioner; or

(2) that the discharge(s) regulated by this permit exceeded the permit limit for a specific parameter, including flow, in four of any six consecutive month periods or exceeded a permit limit by 1.4 (1.2 for toxics) times the permit limit in two of any six consecutive month periods; or

(3) that the permittee has failed or is likely to fail to carry out, meet or comply with any requirement of this permit, compliance schedule, order of the Department, judicial order, or consent decree.

f. The provisions provided for in e. above shall remain in effect until the Permittee can demonstrate to the Department's satisfaction and approval that adequate available capacity exists in the plant and that the facility is in full compliance with all of effluent limitations required by this permit.

12.2 NATIONAL PRETREATMENT STANDARDS: PROHIBITED DISCHARGES

a. General prohibitions:

Pollutants introduced into POTW's by a non-domestic source shall not pass through the POTW or Interfere with the operation or performance of the works or disposal of sludge. These general prohibitions and the specific prohibitions in paragraph (b) of this section apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

b. Specific prohibition:

In addition, the following pollutants shall not be introduced into a POTW:

(1) pollutants which create a fire or explosion hazard in the POTW;

(2) pollutants which will cause corrosive structural damage to the POTW, but in no case discharge with pH lower than 5.0 unless the works is specifically designed to accommodate such discharges;

(3) solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

(4) any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.

(5) heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40^0 C (104^0 F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

c. When Specific Limits Must be Developed by a POTW:

(1) POTW's developing POTW Pretreatment Programs pursuant to §403.8 shall develop and enforce specific limits to implement the prohibitions listed in §403.5(a) and (b).

(2) All other POTW's shall, in cases where pollutants contributed by User(s) result in Interference or Pass-Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's SPDES permit or sludge use or disposal practices.

(3) Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

d. Local Limits:

Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of §307(d) of the Act.

e. EPA and State Enforcement Actions:

If, within 30 days after notice of an Interference or Pass Through violation has been sent by EPA or DEC to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA and DEC may take appropriate enforcement action.