



Permit ID: 3-1328-00025/01028

Permit Review Report

Renewal Number: 1

Modification Number: 1 12/31/2007

**Facility Identification Data**

Name: IBM EAST FISHKILL FACILITY  
Address: 2070 ST RTE 52  
HOPEWELL JUNCTION, NY 12533

**Owner/Firm**

Name: IBM CORP  
Address: NEW ORCHARD RD  
ARMONK, NY 10504, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

Division of Environmental Permits:  
Name: VERONICA M WOLAK  
Address: NYSDEC - REGION 3  
21 SOUTH PUTTS CORNERS RD  
NEW PALTZ, NY 12561-1696  
Phone:8452563048

Division of Air Resources:  
Name: VERONICA M WOLAK  
Address: NYSDEC - REGION 3  
21 SOUTH PUTTS CORNERS RD  
NEW PALTZ, NY 12561-1696  
Phone:8452563058

Air Permitting Contact:  
Name: BRUCE TRIPP  
Address: IBM EAST FISHKILL  
2070 ST RTE 52 - BLDG 325  
HOPEWELL JUNCTION, NY 12533-6531  
Phone:8458921616

**Permit Description**

**Introduction**

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

**Summary Description of Proposed Project**

Reorganization of permit format and requirements initiated by DEC. Inspection Report dated June 14, 2007 outlines administrative changes incorporated within this renewal 1 / mod 1.

**Attainment Status**

IBM EAST FISHKILL FACILITY is located in the town of EAST FISHKILL in the county of DUTCHESS. The attainment status for this location is provided below. (Areas classified as attainment



are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10 $\mu$ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO <sub>2</sub> )	ATTAINMENT
Ozone*	MODERATE NON-ATTAINMENT
Oxides of Nitrogen (NO <sub>x</sub> )**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

\* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NO<sub>x</sub>) which are ozone precursors.

\*\* NO<sub>x</sub> has a separate ambient air quality standard in addition to being an ozone precursor

### Facility Description

The IBM East Fishkill facility is engaged in the development and manufacture of semiconductors for the computer and electronic industries. Emissions from the facility of Sulfur Dioxide, Oxides of Nitrogen (NO<sub>x</sub>) and Volatile Organic Compounds (VOCs) are above major source thresholds as defined by the Federal Clean Air Act and therefore required to obtain a Title V permit.

Emission Unit A00001 consists of eight (8) 72 MMBTU/hr natural gas fired boilers with low NO<sub>x</sub> burners utilizing #6 fuel oil as a backup.

All tanks at the facility are exempt from 6 NYCRR 229 requirements pursuant to 6NYCRR 229.1(f)(1) or 6 NYCRR 229.1(f)(4) (horizontal petroleum or volatile organic liquid storage tanks). The vertical tanks have conservation vents and are pressurized with nitrogen to prevent emissions of volatile organic compounds to the outside atmosphere. The nitrogen pressure system is monitored periodically to ensure the system is working properly.

The manufacturing portion of the facility is subject to 6 NYCRR 212 regulations. Three Eisenmann Regenerative Thermal Oxidizers (RTOs) are utilized for the destruction of emissions from process J1, Casting in Building 330. One Eisenmann Regenerative Thermal Oxidizer is used for the destruction of emissions from process J5, Sintering in Building 330. All four RTOs have continuous monitors and data recorders to document combustion and exhaust temperatures. The continuous monitors must be operated at all times when the associated process equipment is operating except during any quality assurance and routine maintenance activities. Each monitor must be operated according to a quality assurance program approved by the Department.

Three emission sources in Emission Unit C00001, Process J1 (Casting in Building 330), are subject to 6 NYCRR 226. The Solvent Metal Cleaning Processes regulations detail general and operating requirements as well as



equipment specifications.

### Permit Structure and Description of Operations

The Title V permit for IBM EAST FISHKILL FACILITY

is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device.

[NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
  - incinerator - devices which burn waste material for disposal
  - control - emission control devices
  - process - any device or contrivance which may emit air contaminants
- that is not included in the above categories.

IBM EAST FISHKILL FACILITY is defined by the following emission unit(s):

Emission unit J00001 - This emission unit will consist of wafer fabrication in B/323A.

Emission unit J00001 is associated with the following emission points (EP):  
03VOC

It is further defined by the following process(es):

Process: WFJ is located at Building B/323A - WAFER FABRICATION B/323A

Emission unit A00001 - This emission unit consists of eight 72 MMBtu/hr natural gas fired boilers (with No. 6 fuel backup).

Emission unit A00001 is associated with the following emission points (EP):

00001, 00002, 00003, 00004, 00005, 00006, 00007, 00008

It is further defined by the following process(es):

Process: MB6 is located at Building B/315 - EIGHT 72 MMBTU/HR BOILERS BURNING NO. 6 FUEL OIL AS BACKUP.

Process: MBN is located at Building B/315 - EIGHT 72 MMBTU/HR BOILERS BURNING NATURAL GAS (WITH NO. 6 FUEL OIL AS BACKUP).

Emission unit C00001 - This emission unit consists of Raw Material Preparation/Casting operations (ball milling, casting of ceramics and cleaning of casters) and Ceramic Packaging.

Emission unit C00001 is associated with the following emission points (EP):

ORTO3, ORTO4, ORTO5

It is further defined by the following process(es):

Process: 0J1CASTING IN B/330

Process: 0J5SINTERING IN B/330



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Emission unit I00001 - This emission unit consists of wafer fabrication in B/323

Emission unit I00001 is associated with the following emission points (EP):

00VOC

It is further defined by the following process(es):

Process: 0WF is located at Building B/323 - WAFER FABRICATION B/323

Emission unit K00001 - C4 Plating Operations.

Emission unit G00001 - This emission unit consists of multiple processes, precision timing piece, and wafer applications.

Emission unit F00001 - This emission unit consists of multiple processes, thin film, ceramics package, wafer processing, resist application, spin platform, and tool cleaning.

Emission unit B00001 - This emission unit consist of chemical packaging, storage tanks, hazardous waste storage and the Chemical Distribution Center.

**Title V/Major Source Status**

IBM EAST FISHKILL FACILITY is subject to Title V requirements. This determination is based on the following information:

The IBM East Fishkill facility is engaged in the development and manufacture of semiconductors for the computer and electronic industries. Emissions from the facility of Sulfur Dioxide, Oxides of Nitrogen (NO<sub>x</sub>) and Volatile Organic Compounds (VOCs) are above major source thresholds as defined by the Federal Clean Air Act and therefore required to obtain a Title V permit.

**Program Applicability**

The following chart summarizes the applicability of IBM EAST FISHKILL FACILITY with regards to the principal air pollution regulatory programs:

<b>Regulatory Program</b>	<b>Applicability</b>
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO



RACT	YES
SIP	YES

**NOTES:**

**PSD**                                      Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NSR**                                      New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NESHAP**      National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

**MACT**                                      Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

**NSPS**                                      New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

**Title IV**                                      Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

**Title VI**                                      Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's(hydrofluorocarbons)or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

**RACT**                                      Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

**SIP**                                      State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This



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specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

### Compliance Status

Facility is in compliance with all requirements

### SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

#### SIC Code

3471  
3674  
3679

#### Description

ELECTROPLATING, POLISHING, ANODIZING, AND COLORING  
SEMICONDUCTORS & RELATED DEVICES  
ELECTRONIC COMPONENTS, NEC

### SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

#### SCC Code

3-13-070-01  
  
3-13-999-99  
  
3-13-065-01  
  
3-13-065-99  
  
1-02-006-02  
  
1-02-004-02  
  
4-07-999-97  
  
5-03-007-02

#### Description

ELECTRICAL EQUIPMENT  
ELECTRICAL EQUIPMENT - ELECTRICAL WINDINGS  
RECLAMATION  
Single Chamber Incinerator/Oven  
ELECTRICAL EQUIPMENT  
ELECTRICAL EQUIPMENT - OTHER NOT CLASSIFIED  
Other Not Classified  
ELECTRICAL EQUIPMENT  
ELECTRICAL EQUIPMENT - SEMICONDUCTOR  
MANUFACTURING  
SEMICONDUCTOR MFG-CLEANING PROCESSES-WET CHEMICAL-SPECIFY AQ  
SOLUTION  
ELECTRICAL EQUIPMENT  
ELECTRICAL EQUIPMENT - SEMICONDUCTOR  
MANUFACTURING  
SEMICONDUCTOR MFG-MISCELLANEOUS OPERATIONS-GENERAL-SPECIFY  
MATERIAL  
EXTERNAL COMBUSTION BOILERS - INDUSTRIAL  
INDUSTRIAL BOILER - NATURAL GAS  
10-100 MMBtu/Hr  
EXTERNAL COMBUSTION BOILERS - INDUSTRIAL  
INDUSTRIAL BOILER - RESIDUAL OIL  
10-100MMBTU/HR \*\*  
ORGANIC CHEMICAL STORAGE  
ORGANIC CHEMICAL STORAGE - MISCELLANEOUS  
Specify in Comments  
SOLID WASTE DISPOSAL - INDUSTRIAL  
SOLID WASTE DISPOSAL: INDUSTRIAL - LIQUID WASTE  
SOLID WASTE DISPOSAL-INDUSTRIAL-LIQUID WASTE  
TREATMENT-GENERAL

### Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical



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compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE		
		lbs/yr	Range	
000057-14-7	1,1-DIMETHYL HYDRAZINE	pteyear	Y	
000084-74-2	1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER	pteyear	Y	Y
000120-80-9	1,2-BENZENEDIOL	pteyear	Y	
000107-06-2	1,2-DICHLOROETHANE	pteyear	Y	
000107-21-1	1,2-ETHANEDIOL	pteyear	Y	
000872-50-4	1-METHYL-2-PYRROLIDONE	pteyear	B	
000098-86-2	1-PHENYLETHANONE	pteyear	Y	
000108-10-1	2-PENTANONE, 4-METHYL	pteyear	Y	
000108-65-6	2-PROPANOL, 1-METHOXY-, ACETATE	pteyear	pteyear	B
000079-10-7	2-PROPENOIC ACID	pteyear	Y	
000137-05-3	2-PROPENOIC ACID, 2-CYANO-, METHYL ESTER	pteyear	pteyear	A
000123-86-4	ACETIC ACID, BUTYL ESTER	pteyear	B	
000301-04-2	ACETIC ACID, LEAD(2+) SALT	pteyear	Y	
000075-05-8	ACETONITRILE	pteyear	Y	
007664-41-7	AMMONIA	pteyear	A	
000062-53-3	ANILINE	pteyear	Y	
007440-38-2	ARSENIC	pteyear	Y	
001327-53-3	ARSENIC OXIDE	pteyear	Y	
003141-12-6	ARSENOUS ACID, TRIMETYL ESTER	pteyear	pteyear	Y
007784-42-1	ARSINE	pteyear	Y	
013967-50-5	AURATE(1-), BIS(CYANO-C)-, POTASSIUM	pteyear	pteyear	Y
000071-43-2	BENZENE	pteyear	Y	
000630-08-0	CARBON MONOXIDE	pteyear	F	
007782-50-5	CHLORINE	pteyear	Y	
000067-66-3	CHLOROFORM	pteyear	Y	
001308-38-9	CHROME (III) OXIDE	pteyear	Y	
007789-12-0	CHROMIC ACID, DISODIUM SALT, DIHYDRATE	pteyear	pteyear	Y
007440-47-3	CHROMIUM	pteyear	Y	
001333-82-0	CHROMIUM OXIDE	pteyear	Y	
000075-71-8	DICHLORODIFLUOROMETHANE	pteyear	pteyear	B
000075-09-2	DICHLOROMETHANE	pteyear	Y	
000096-48-0	DIHYDRO 2(3H)-FURANONE	pteyear	B	
000076-14-2	ETHANE, 1,2-DICHLORO-1,1,2,2-TETRAFLUORO	pteyear	pteyear	B
000075-68-3	ETHANE, 1-CHLORO-1,1-DIFLUORO-	pteyear	pteyear	C
000111-96-6	ETHANE, 1,1'-OXYBIS[-METHOXY]	pteyear	pteyear	Y
013746-66-2	FERRATE(3-), HEXAKIS(CYANO-C)-, TRIPOTASSIUM, (OC-6-11)	pteyear	pteyear	A
000050-00-0	FORMALDEHYDE	pteyear	Y	
000554-07-4	GOLD POTASSIUM CYANIDE	pteyear	Y	
0NY100-00-0	HAP	pteyear	C	
000302-01-2	HYDRAZINE	pteyear	Y	
007647-01-0	HYDROGEN CHLORIDE	pteyear	Y	
007664-39-3	HYDROGEN FLUORIDE	pteyear	Y	



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000067-63-0	ISOPROPYL ALCOHOL	pteyear		B	
007439-92-1	LEAD	pteyear		Y	
007439-96-5	MANGANESE	pteyear		Y	
000075-69-4	METHANE, TRICHLOROFLUORO-	pteyear			B
000080-62-6	METHYL ACRYLIC ACIDMETHYL ESTER	pteyear			Y
000067-56-1	METHYL ALCOHOL	pteyear		Y	
000078-93-3	METHYL ETHYL KETONE	pteyear		Y	
000101-68-8	METHYLENE BISPHENYL ISOCYANATE	pteyear			Y
000091-20-3	NAPHTHALENE	pteyear		Y	
007718-54-9	NICKEL CHLORIDE	pteyear		Y	
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS		pteyear		Y
010099-74-8	NITRIC ACID, LEAD(2+)SALT	pteyear		Y	
0NY210-00-0	OXIDES OF NITROGEN	pteyear		G	
0NY075-00-0	PARTICULATES	pteyear		F	
000127-18-4	PERCHLOROETHYLENE	pteyear		Y	
007723-14-0	PHOSPHORUS (YELLOW)	pteyear		Y	
0NY075-00-5	PM-10	pteyear		C	
000151-50-8	POTASSIUM CYANIDE	pteyear		Y	
000097-64-3	PROPANOIC ACID,2-METHYL-,1,2-ETHANEDIYL ESTER		pteyear		B
000107-13-1	PROPENENITRILE	pteyear		Y	
000123-38-6	PROPIONALDEHYDE	pteyear		Y	
007803-62-5	SILANE	pteyear		A	
000143-33-9	SODIUM CYANIDE	pteyear		Y	
014017-41-5	SULFAMIC ACID, COBALT (2+) SALT	pteyear			Y
013770-89-3	SULFAMIC ACID, NICKEL(2+) SALT (2:1)	pteyear			Y
007446-09-5	SULFUR DIOXIDE	pteyear		H	
010124-43-3	SULFURIC ACID, COBALT(2+)SALT	pteyear			Y
000333-20-0	THIOCYANIC ACID, POTASSIUM SALT	pteyear			A
000079-01-6	TRICHLOROETHYLENE	pteyear		Y	
0NY998-00-0	VOC	pteyear		G	
001330-20-7	XYLENE, M, O & P MIXT.	pteyear		Y	



## NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

### Item A: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the



permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

**Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does



not stay any permit condition.

**Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 201-6.5(a)(5)**

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

**Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)**

This permit does not convey any property rights of any sort or any exclusive privilege.

**Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter,



inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and



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Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Regulatory Analysis**

<b>Location Facility/EU/EP/Process/ES</b>	<b>Regulation</b>	<b>Condition</b>	<b>Short Description</b>
FACILITY	ECL 19-0301	55	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 60-Dc.46c (a)	1-15	Emission monitoring for Sulfur Dioxide.
FACILITY	40CFR 60-Dc.47c	1-16	Emission Monitoring for Particulate Matter.
FACILITY	40CFR 60-Dc.48c (d)	1-17	Reporting and Recordkeeping Requirements.
FACILITY	40CFR 68	20	Chemical accident prevention provisions
FACILITY	40CFR 68-A.10 (a)	1-18	
FACILITY	40CFR 82-F	21	Protection of Stratospheric Ozone -



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FACILITY	6NYCRR 200.6	1	recycling and emissions reduction Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	
FACILITY	6NYCRR 201-1.4	56	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	
FACILITY	6NYCRR 201-1.8	23	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2 (a)	12	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3 (a)	13	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	1-1, 24, 32, 33	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5 (a) (4)	14	
FACILITY	6NYCRR 201-6.5 (a) (7)	2	
FACILITY	6NYCRR 201-6.5 (a) (8)	15	
FACILITY	6NYCRR 201-6.5 (c)	3	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (c) (2)	4	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (c) (3) (ii)	5	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (d) (5)	16	
FACILITY	6NYCRR 201-6.5 (e)	6	
FACILITY	6NYCRR 201-6.5 (f)	1-2	
FACILITY	6NYCRR 201-6.5 (f) (6)	17	
FACILITY	6NYCRR 201-6.5 (g)	25	
FACILITY	6NYCRR 202-1.1	18	
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.2	57	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	19	General Prohibitions - visible emissions limited
FACILITY	6NYCRR 212.10 (c) (1)	1-8	NOx and VOC RACT required at major facilities
FACILITY	6NYCRR 212.11 (b)	1-3, 1-4, 1-5	
FACILITY	6NYCRR 212.4 (c)	1-6	General Process Emission Sources - emissions from new processes and/or modifications
FACILITY	6NYCRR 212.6 (a)	1-7	General Process Emission Sources - opacity of emissions limited
FACILITY	6NYCRR 215	9	
FACILITY	6NYCRR 225-1.2	1-9	Sulfur in Fuel Limitations.
FACILITY	6NYCRR 225-1.2 (a) (2)	1-10	Sulfur in Fuel Limitations Post 12/31/87.
FACILITY	6NYCRR 225-1.8	1-11	Reports, sampling and analysis.
FACILITY	6NYCRR 226	1-12	SOLVENT METAL CLEANING PROCESSES
FACILITY	6NYCRR 226.2	1-13	
A-00001	6NYCRR 227-1.3 (a)	34	Smoke Emission





representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR 201-6.5(a)(4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6NYCRR 201-6.5(a)(7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6NYCRR 201-6.5(a)(8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6NYCRR Part 201-6.5(c)(2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports



required by the permit.

6NYCRR Part 201-6.5(c)(3)(ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5(d)(5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR 201-6.5(f)(6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6NYCRR Part 201-6.5(g)

Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the federally enforceable portion of the permit, unless they are specifically addressed by it.

6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other



than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

This Part lists the regulated substances and their applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

**Facility Specific Requirements**

In addition to Title V, IBM EAST FISHKILL FACILITY has been determined to be subject to the following regulations:

40CFR 60-Dc.46c (a)

This regulation stipulates that on or after the date on which the initial performance test is completed or required to be completed under section 60.8 of 40 CFR 60 Subpart A, no owner or operator of an affected facility that combusts oil, shall combust oil with a sulfur content in excess of 0.5 percent by weight.

With a  $1.1 \times 10^6$  gal delivery total for the 2006/2007 year, 10 samples were analyzed by the facility during this period. All samples confirmed percent sulfur with fuel suppliers certification and fuel suppliers sampling. IBM has committed to utilizing 0.5% sulfur content or less facility wide.

40CFR 60-Dc.47c

This regulation requires that all continuous emissions monitors measuring opacity to be operated in accordance with Appendix B of this part 40 CFR 60.

40CFR 60-Dc.48c (d)

This regulation requires the owner or operator of the facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c, to submit semi-annual reports to the EPA

40CFR 68-A.10 (a)

(a) An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance is required to comply with the requirements to have an accidental release plan within a defined time, which is no later than:



- (1) June 21, 1999;
- (2) Three years after the date on which a regulated substance is first listed; or
- (3) The date on which a regulated substance is first present above a threshold quantity.

6NYCRR 201-6.5 (f)

This regulation defines in general terms under what circumstances changes would be allowed without a permit modification provided the permit contains sufficient operational flexibility provisions.

6NYCRR 212 .10 (c) (1)

IBM East Fishkill is not required to further evaluate Reasonably Available Control Technology (RACT) for emission points with nitrogen oxide and volatile organic compound emission rate potentials less than 3.0 pounds per hour. This condition applies to numerous emission points associated with emission units stated above.

6NYCRR 212 .11 (b)

Monitoring requirements for the Regenerative Thermal Oxidizers including temperature limits, record keeping, and control efficiency..

6NYCRR 212 .4 (c)

This rule requires existing sources (in operation after July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.05 grains per dry standard cubic foot.

6NYCRR 212 .6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6NYCRR 225-1.2

This regulation limits the amount of sulfur present in the fuel burned at the facility.

6NYCRR 225-1.2 (a) (2)

This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

6NYCRR 225-1.8

This regulation requires an owner or operator of a facility which purchases and fires coal and/or oil to retain and submit upon the Departments request reports to the commissioner containing fuel analysis data, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1.

6NYCRR 226

This regulation specifies the general requirements, equipment specifications and operating requirements for open-top vapor, conveyORIZED and cold cleaning degreasers.

6NYCRR 226 .2

Requirements for conducting solvent metal cleaning.

6NYCRR 227-1.3 (a)



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This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

6NYCRR 227-2.4 (c)

All eight mid sized boilers at IBM East fishkill are equipped with low NOx Burners. This meets RACT requirements pursuant to 6 NYCRR Subpart 227-2.

**Non Applicability Analysis**

**List of non-applicable rules and regulations:**

<b>Location Facility/EU/EP/Process/ES</b>	<b>Regulation</b>	<b>Short Description</b>
FACILITY	6NYCRR 229.1(f) (1)	Non-applicability

Reason: The tanks at this facility are pressurized fixed roof tanks with conservation vents which are capable of maintaining a working pressure to prevent emissions of VOCs. Per 6 NYCRR 229.1(f) (1), these tanks are exempt from Part 229.

The Nitrogen pressure system on the tanks shall be checked periodically to ensure the system is operating properly. Corrective action will be taken immediately if necessary.

NOTE: Non-applicability determinations are cited as a permit condition under 6 NYCRR Part 201-6.5(g). This information is optional and provided only if the applicant is seeking to obtain formal confirmation, within an issued Title V permit, that specified activities are not subject to the listed federal applicable or state only requirement. The applicant is seeking to obtain verification that a requirement does not apply for the stated reason(s) and the Department has agreed to include the non-applicability determination in the issued Title V permit which in turn provides a shield against any potential enforcement action.

**Compliance Certification**

Summary of monitoring activities at IBM EAST FISHKILL FACILITY:

<b>Location Facility/EU/EP/Process/ES</b>	<b>Cond No.</b>	<b>Type of Monitoring</b>
FACILITY	1-15	monitoring of process or control device parameters as surrogate
FACILITY	1-16	record keeping/maintenance procedures
FACILITY	1-17	record keeping/maintenance procedures
FACILITY	1-18	record keeping/maintenance procedures
FACILITY	1-1	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	1-2	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
FACILITY	1-8	record keeping/maintenance procedures
FACILITY	1-3	monitoring of process or control device parameters as surrogate
FACILITY	1-4	monitoring of process or control device parameters as surrogate



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FACILITY	1-5	monitoring of process or control device parameters as surrogate
FACILITY	1-6	monitoring of process or control device parameters as surrogate
FACILITY	1-7	monitoring of process or control device parameters as surrogate
FACILITY	1-9	work practice involving specific operations
FACILITY	1-10	work practice involving specific operations
FACILITY	1-11	record keeping/maintenance procedures
FACILITY	1-12	work practice involving specific operations
FACILITY	1-13	record keeping/maintenance procedures
A-00001	34	monitoring of process or control device parameters as surrogate
FACILITY	1-14	record keeping/maintenance procedures

**Basis for Monitoring**

Regulations and conditions in the permit provide detailed information as to the basis for monitoring. The application contains only the base emission units, points, processes, and source/controls, listed under mandatory 6 NYCRR Subpart 201-6 conditions. A facility specific condition includes the complete inventory of emission units, points, processes, and sources/controls on site, which is kept updated at the facility.