



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 1-4722-00032/00115

Renewal Number: 2

Modification Number: 1 06/12/2018

Facility Identification Data

Name: BROOKHAVEN NATIONAL LABORATORY

Address: 53 BELL AVE|SCTM 200-505-1-1.002

UPTON, NY 11973

Owner/Firm

Name: Brookhaven Science Associates LLC

Address: 40 Brookhaven Ave

Upton, NY 11973-5000, USA

Owner Classification: Corporation/Partnership

Permit Contacts

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UPTON, NY 11973

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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

Modification of the facility Title V Permit. The modification involves changes to emission unit description for Emission Unit U-INSIG, removal of printed circuit board laboratory emission sources and their associated emission points, addition of system



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averaging to comply with the new lower NOx limits.

Attainment Status

BROOKHAVEN NATIONAL LABORATORY is located in the town of BROOKHAVEN in the county of SUFFOLK.

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< 10µ in diameter (PM10) | ATTAINMENT |
| Sulfur Dioxide (SO2) | ATTAINMENT |
| Ozone* | SEVERE NON-ATTAINMENT |
| Oxides of Nitrogen (NOx)** | ATTAINMENT |
| Carbon Monoxide (CO) | ATTAINMENT |

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

BNL is a government-owned contractor-operated research facility. The laboratory is managed by Brookhaven Science Associates (BSA) which is a limited liability company with two principal members: the Research Foundation of the State University of New York on behalf of SUNY at Stony Brook and Battelle Memorial Institute. The laboratory carries out basic and applied research in the following fields: high-energy nuclear and solid state physics; fundamental material and structural properties and the interactions of matter; nuclear medicine; biomedical and environmental sciences; and selected energy technologies. Organizationally, the laboratory has ten departments and two divisions which conduct basic and applied research at the numerous on-site facilities. The research activities of these departments are supported by the efforts of numerous support organizations. The laboratory's support organizations manage a number of facilities which are subject to federally enforceable regulatory requirements. Among the more significant facilities is the central steam facility which operates four boilers. Two of the boilers are subject to NSPS Subpart DB requirements and are equipped with continuous emissions monitoring systems. All of the boilers are subject to, and comply with, 6 NYCRR Part 227-2 NOx Reasonable Available Control Technology requirements. Other regulated sources include a paint spray booth subject to 6 NYCRR Part 228 provisions, and two on-site gasoline refueling facilities which must meet 6 NYCRR Part 225-3 Reid Vapor Pressure and Federal reformulated gasoline provisions, along with 6 NYCRR Part 230 Stage I and Stage II vapor collection system requirements.

Permit Structure and Description of Operations

The Title V permit for BROOKHAVEN NATIONAL LABORATORY 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



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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.

BROOKHAVEN NATIONAL LABORATORY is defined by the following emission unit(s):

Emission unit U61005 - This emission unit located in Building 610 consists of two commercial-institutional sized boilers (Boilers 1A and 5) each with its own separate stack (emission points 6101A and 61005).

Boiler 1A has a nominal heat capacity of 56.7 MMBTU/hr and is used for peaking and intermittent loads. Boiler 1A burns residual fuel and residual fuel blended with small quantities of waste oil.

Boiler 5 has a nominal heat capacity of 225 MMBTU/hr and is used primarily to meet winter base loads. Since it was constructed before 1986, Boiler 5 is not subject to NSPS subpart DB. Boiler 5 has dual fuel firing capabilities enabling it to burn oil or natural gas. Boiler No. 5 primarily burns residual fuel, residual fuel blended with small quantities of waste oil, and natural gas. Occasionally small volumes of distillate fuel are combusted.

Emission unit U61005 is associated with the following emission points (EP):
61005, 6101A

Process: SF1 is located at Building 610 - Burning #6 oil in Boiler 1A and Boiler 5. The #6 oil may be blended with low volumes of waste oil (waste fuel A and/or B).

Process: SF2 is located at Building 610 - Burning of natural gas in Boiler 5.

Process: SF3 is located at Building 610 - Burning of distillate oil in Boilers 1A and 5.

Emission unit U61006 - This Emission Unit located in Building 610. It consists of one commercial-institutional sized boiler (Boiler 6) with its own stack (Emission Point 61006). This boiler has a nominal heat capacity of 147 MMBTU/hr. This boiler is subject to NSPS Subpart Db requirements. Boiler 6 has a heat release rate of 70,402 BTU/hr-cubic-foot. This boiler is equipped with dual fuel burners which enable it to burn oil or natural gas. Construction of Boiler 6 commenced prior to June 19, 1986.

Boiler No. 6 burns residual fuel, residual fuel mixed with small quantities of waste oil, and natural gas. Occasionally small volumes of distillate fuel are combusted.

Emission unit U61006 is associated with the following emission points (EP):



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61006

Process: SF4 is located at Building 610 - Burning #6 oil in Boiler 6. The #6 oil may be blended with low volumes of waste oil (waste fuel A and/or B). The fuel burned has fuel-bound nitrogen content below 0.3% nitrogen, which is guaranteed by supplier. This is a 147 MMBTU/hr package boiler.

Process: SF5 is located at Building 610 - Burning natural gas in Boiler 6.

Process: SF6 is located at Building 610 - Burning of distillate oil in Boiler 6.

Emission unit UINSIG - This unit includes one small scale silver electroplating operations located in Bldg 922, which is used to electroplate copper magnet bus bars and other metal parts. Fumes from the operation in Bldg. 922 are released to a stack (EP 92204).

This unit also includes a Specialty Coating System G3P-8 Spin Coater, that is used to apply various coatings to water substrates for subsequent surface chemistry studies. Evaporative emissions from solvents used with the various coatings are vented to the atmosphere via a 40.3 ft exhaust stack in Bldg. 741 (EP 741AA)

At the Target Processing Laboratory (TLP) in Bldg. 801, various solvents are used to chemically extract isotopes from irradiated targets to be used later for radiopharmaceutical production. Carbon tetrachloride and methyl ethyl ketone are used in small quantities respectively to extract germanium-68, zinc-65, and technetium-96 from irradiated targets. After the isotopes are recovered, the evaporated extraction solvents pass through two granulated activated charcoal filters in series before they are released to the atmosphere through a 17.9 m stack (EP 80102).

This unit also includes three aerosol can recycling units used to reduce the waste disposal costs of used aerosol cans. The Aerosol Aerosol Can Recycling System that is used thread directly onto the two inch diameter bung of a 55-gallon drum. The unit's activated carbon filters thread directly to the 3/4 inch diameter bung. A single can is then placed in the unit. When the unit's handle is depressed, the unit punctures the can allowing the product to drain into the drum. Residual propellants pass through activated carbon filters where VOCs are adsorbed. The units are being used in Bldgs. 339, 452, and 535 where aerosol cans are collected. Chlorofluorocarbon propellants and hydrocarbons not captured by the activated carbon filters are released into the ambient air.

This unit also includes an exhaust system for two 1000-gallon lime mixing tanks in the chemical treatment room at the Laboratory's Water Treatment Plant in Bldg. 624. The exhaust system (EP 624AA) is used to vent dust created when technicians load 50-pound bags of hydrated lime into lime mixing tanks. Each tank is equipped with a 150 degree water spray dust suppression nozzle to prevent lime dust from rising into the breathing zone of technicians as they empty lime bags into the mixing tanks.

Emission unit UINSIG is associated with the following emission points (EP):
510AK, 624AA, 741AA, 80102, 92204

Process: IN1 A number of permitted emission sources whose combined emissions are insignificant.

Emission unit UMETAL - Cold cleaning of metal parts at various site locations. Unit consists of one internally vented immersion cleaning tank in Bldg. 423, one internally vented immersion cleaning tank in Bldg 479, one internally vented immersion cleaning tray in Bldg. 610, two internally vented remote reservoir degreasers in Bldg. 630, one internally vented hose-applied parts cleaning tank in Bldg 903, one



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spray cleaning process in bldg 923 which consists of an electronic parts cleaning booth and two drying ovens manifolded to emission point 92301, and the BNL Central Degreasing Facility in Bldg. 498 which consists of three immersion wash tanks and three rinse tanks (exhausted to stack 49801) and a drying oven with its own stack.

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

02AMB, 49801, 92301

Process: SM1 Several metal parts cleaning operations subject to Part 226 provisions for cold cleaning degreasing. Cold cleaning operations subject to Part 226 must only use cleaning solvents that have vapor pressures of 1.0 mm of mercury, or less, at 20 C.

Emission unit UCOILS - This emission unit consists of a magnet coil coating operation in Building 902 where multiple fiberglass and kevlar yarn substrates are applied to magnet coils using two-part epoxy adhesives. The adhesives and substrates are applied in successive steps and final curing is conducted in a baking oven. The three hoods which capture emissions during adhesive application and the oven exhaust are connected to a common stack (Emission Point 90206).

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

90206

Process: AD1 is located at Building 902 - Multiple layer application of fiberglass & kevlar yarns to magnet coils with two-part epoxy adhesives.

Emission unit UGENER - This emission unit consists of 12 stationary diesel emergency generators and one stationary diesel non-emergency generator identified as emission sources 46301, 49006, 55503, 63501, 73401, 73501, 74001, 74002, 80101, 912A1, 912A2, 912A3, and 51501 respectively. These emission sources have their own dedicated exhaust stacks identified as 46301, 49006, 55503, 63501, 73401, 73501, 74001, 74002, 80101, 912A1, 912A2, 912A3, and 51501.

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

46301, 49006, 55503, 63501, 73401, 73503, 74001, 74002, 80101, 912A1, 912A2, 912A3

Process: SEG Stationary diesel emergency generators, 2007 model year and later, with a maximum engine power greater than or equal to 2,237 KW and a displacement of less than 10 liters per cylinder must meet 40 CFR 89.112 Table 1 emission standards for NMHC + NO_x, CO, and PM.

Stationary diesel emergency generators, model years 2007-2010, with maximum engine power greater than 2,237 KW and a displacement of less than 10 liters per cylinder must meet emission standards of 40 CFR 60 Subpart III Table 1. Stationary diesel emergency generators model years 2011 and later with a maximum engine power greater than 2,237 KW and a displacement of less than 10 liters per cylinder must meet 40 CFR 89.112 Table 1 emission standards for NMHC + NO_x, CO, and PM.

Emission unit U61007 - This emission unit, located in Building 610, consists of one commercial-institutional sized boiler (Boiler 7) with its own stack (Emission Point 61007). This boiler has a nominal heat capacity of 147 MMBTU/hr. This boiler is subject to NSPS Subpart Db requirements. Boiler 7 has a heat release rate of 87,814 BTU/hr-cubic-foot. The boiler is equipped with dual fuel burners which enable it to burn oil or natural gas. Boiler No. 7 burns residual fuel, residual fuel mixed with small quantities of



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waste oil, and natural gas. Occasionally small volumes of distillate fuel are combusted.

As construction of Boiler 7 commenced after June 19, 1986, this boiler is subject to the nitrogen oxide (NO_x), sulfur dioxide (SO₂), and particulate (PM) standards of Subpart Db. The boiler is also subject to the NO_x RACT provisions of 6 NYCRR Part 227-2.

Compliance with the emission standards is achieved through the use of low NO_x burners and an overfire air NO_x reduction system. Compliance with the lower emissions limit of Part 227-2 is achieved through the combustion of No. 6 oil with a fuel nitrogen content of less than 0.3% and a fuel sulfur content of less than 0.3%.

Emission unit U61007 is associated with the following emission points (EP):
61007

Process: SF7 is located at Building 610 - Burning #6 oil in Boiler 7, a 147 MMBTU/hr package boiler. The #6 oil may be blended with low volumes of waste oil (waste fuel A and/or B). The No. 6 oil is guaranteed at or below 0.3% sulfur & 0.3% nitrogen by the supplier.

Process: SF8 is located at Building 610 - Burning of natural gas in Boiler 7.

Process: SF9 is located at Building 610 - Burning of distillate oil in Boiler 7.

Emission unit USMBLR - This emission unit consists of four small boilers identified as emission sources 030AB, 244AB, 422AF, and 42304 with nominal heat input capacities of 1.62, 1.50, 2.41, and 3.01 MMBtu/hr respectively. Each boiler has its own dedicated stacks which are identified as Emission Points 03001, 24403, 42206, and 42304.

Emission unit USMBLR is associated with the following emission points (EP):
03001, 24403, 42206, 42304

Process: SB1

Emission unit UHALON - This unit consists of numerous portable Halon 1211 fire extinguishers, several Halon 1301 cylinders associated with various fixed total flooding fire suppression systems, and Halon 1301 reserve tanks. The unit also includes a portable halon 1211 recovery/recharge system. This unit is subject to provisions of 40 CFR Part 82 Subpart H, entitled Halon Emissions Reduction. Emissions are restricted to de minimis releases from the Halon recovery devices during periodic servicing of extinguishers.

Process: HR1 Recovery and recycling of Halon from portable extinguishers and fixed fire suppression systems.

Emission unit UFUELS - This emission unit includes two on-site gasoline refueling facilities.

The first facility located at Building 630 is a contractor operated facility that services private vehicles. The contractor is responsible for inspecting and replacing pump nozzles and hoses and for complying with the operational requirements of 6 NYCRR Part 230. As the owner of the facility, DOE/BNL assumes responsibility for overall compliance with Part 230 requirements and other applicable regulatory



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requirements at this facility. The facility has three pumps (two pump hoses each) that dispense low and high octane grades of gasoline. The pumps are connected to three 8000 gallon double walled underground storage tanks. All tanks are equipped with Stage I and Stage II engineering controls. Uncaptured vapors generated during tank loading and tank breathing vapors are passively vented to separate stacks (Emission Points 63001, 63002 and 63003).

The second facility located at Building 423 is a refueling facility for BNL fleet gasoline powered vehicles. The facility has two pumps (two pump hoses each) that dispense a low octane grade of gasoline and E85. The pumps are connected to two 8000 gallon double walled underground storage tanks. Both tanks are equipped with Stage I engineering controls. Uncaptured vapors generated during tank loading and tank breathing vapors are passively vented to separate stacks (Emission Points 42309 and 42310). BNL is located in Suffolk County, a severe ozone non-attainment area, and a county included in the New York City Consolidated Metropolitan Statistical Area. Due to the laboratory's location, certain federally enforceable restrictions apply to the gasoline that can be received and dispensed from gasoline refueling facilities at the site. In particular, because BNL is in a severe ozone non-attainment area, the Reid vapor pressure of the gasoline delivered and dispensed at BNL's two refueling facilities cannot exceed 9.0 pounds per square inch (psi) during the peak ozone season (May 1 - September 15). In addition, to meet federally enforceable requirements intended to reduce automobile emissions of volatile organic compounds and hazardous air pollutants, reformulated gasoline must be supplied and dispensed year round. Reformulated gasoline and Reid vapor pressure requirements are found respectively in 40 CFR 80 Subpart D and 6 NYCRR 225-3.

Emission unit UFUELS is associated with the following emission points (EP):
42309, 42310, 63001, 63002, 63003

Process: OXY FROM 10/1 TO 4/30, REFORMULATED GASOLINE WITH AN OXYGEN CONTENT FROM 2.7-2.9 SHALL BE DISPENSED. DURING THIS PERIOD, THE REID VAPOR PRESSURE OF GASOLINE DELIVERED NORMALLY FLUCTUATES BETWEEN 11.0 AND 12.0 PSI.

Process: RVP is located at Building 423 - Gasoline dispensing systems with Stage I and II controls.

Emission unit URFRIG - This unit covers all refrigerant recovery, recycling and reclamation activities that take place during the repair, maintenance, and servicing of refrigeration and air conditioning equipment located across the site. This unit includes centrifugal chillers, reciprocating chillers, rotary screw chillers, split air conditioning units, package air conditioning units, and refrigerant recovery devices utilized to recover any refrigerants that might be released during servicing and repair of refrigeration and air conditioning equipment. This unit is subject to provisions of 40 CFR Part 82 Subpart F, entitled Refrigerant Recovery and Recycling Requirements for Refrigeration and Air Conditioning Equipment and Appliances. This unit also covers various pieces of commercial refrigerant equipment utilized in Buildings 30 and 488 that are serviced by an outside contractor.

Process: RC1 This process covers BNL appliances normally containing equal to or less than 50 lbs of refrigerant. Refrigerant recovery and recycling equipment used by certified technicians to service covered equipment meet the levels of evacuation established by EPA as noted in section 82.158. Includes 18 reciprocal chillers, 303 split units, 247 package units and numerous small appliances with Class I or II refrigerant charges of 5 lbs or less. The number of units is subject to change as BNL adds new equipment or replaces old equipment.

Recovery and recycling equipment, used by EPA certified technicians to service covered equipment, meet the levels of evacuation established by EPA as noted in 40 CFR section 82.158. Includes 28 reciprocal, 22



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centrifugal and 15 rotary chillers, 13 split and 13 package units. The number of units is subject to change as BNL adds new equipment or replaces old equipment.

Emission unit UPAINT - This emission unit is located in building 244 and consists of a spray booth (emission point 24402) and two paint storage cabinets (244AE) both internally vented.

Emission unit UPAINT is associated with the following emission points (EP):
00AMB, 24402

Process: PT1 is located at Building 244 - Spray painting of wood furniture and miscellaneous metal parts w/VOC compliant coatings.

Emission unit UMVACS - BNL operates a fleet of approximately 259 vehicles. These vehicles are serviced at the automotive service shop in Bldg 423. It is estimated that there are 200 vehicles with air conditioners charged with R-12 or with R-134a. BNL services heavy duty vehicles in its Heavy Equipment Maintenance Operations Shop, also in Bldg. 423. Several of these heavy duty vehicles have air conditioners that are periodically serviced. The laboratory also has a contractor operated facility located at Building 630 that services privately owned vehicles of employees and laboratory guests.

This emission unit covers activities associated with the service and repair to fleet and private vehicle air conditioning equipment. This unit includes refrigerant recovery/recycling devices that can be used with R-12 and R-134a motor vehicle air conditioners.

Emission unit UMVACS is associated with the following emission points (EP):
03AMB

Process: MV1 is located at Building 423 - Service and repair of motor vehicle air conditioners containing R-12. The Robinair Model 17700A refrigerant recovery/recycling device is certified to meet the standards set forth in 40 CFR 82 Subpart B Appendix A. Service technicians at the M & L Service Station have passed certification training as per Section 82.40.

Process: MV2 is located at N/A, Building 423 - Service and repair of motor vehicle air conditioners containing R-134a. The Robinair Models Cool-Tech 34700Z and Cool-Tech 34788 refrigerant recovery/recycling devices are used to recover and recycle R-134a. Service technicians at the automotive repair shop and M & L Service Station have passed certification training as per Section 82.40.

Title V/Major Source Status

BROOKHAVEN NATIONAL LABORATORY is subject to Title V requirements. This determination is based on the following information:

The facility is a major source because emissions exceed Title V thresholds.

Program Applicability

The following chart summarizes the applicability of BROOKHAVEN NATIONAL LABORATORY with regards to the principal air pollution regulatory programs:



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| Regulatory Program | Applicability |
|--------------------------------|---------------|
| PSD | YES |
| 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, 6 NYCRR 231-7, 231-8) - 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 231-5, 231-6) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - 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



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equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212-3, 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, 6 NYCRR 200.10) - 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 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

Description

| | |
|------|--|
| 8733 | NONCOMMERCIAL RESEARCH ORGANIZATIONS |
| 8922 | NONCOMMERCIAL RESEARCH ORGANIZATIONS(1977) |

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

Description

| | |
|-------------|---|
| 1-03-004-01 | EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - RESIDUAL OIL Grade 6 Oil |
| 1-03-005-01 | EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - DISTILLATE OIL Grades 1 and 2 Oil |
| 1-03-006-01 | EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - NATURAL GAS Over 100 MMBtu/Hr |



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| | |
|-------------|---|
| 1-05-001-05 | EXTERNAL COMBUSTION BOILERS - SPACE HEATERS INDUSTRIAL SPACE HEATER Distillate Oil |
| 2-01-001-05 | INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) RECIPROCATING: CRANKCASE BLOWBY |
| 2-88-888-01 | INTERNAL COMBUSTION ENGINES - FUGITIVE EMISSIONS INTERNAL COMBUSTION ENGINE: FUGITIVE EMISSIONS, OTHER/NOT CLASSIFIED Specify in Comments |
| 3-12-999-99 | MACHINERY, MISCELLANEOUS ELECTRICAL EQUIPMENT - MISCELLANEOUS MACHINERY Other Not Classified |
| 3-14-013-AA | TRANSPORTATION EQUIPMENT AUTOMOTIVE REPAIR AIR CONDITIONER REFRIGERANT CAPTURE |
| 3-99-999-94 | MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES Other Not Classified |
| 4-01-003-98 | ORGANIC SOLVENT EVAPORATION COLD SOLVENT CLEANING/STRIPPING Other Not Classified |
| 4-02-002-10 | SURFACE COATING OPERATIONS SURFACE COATING APPLICATION - GENERAL Paint: Water-Base |
| 4-02-007-12 | SURFACE COATING OPERATIONS SURFACE COATING APPLICATION - GENERAL SURFACE COATING APPLICATION-GENERAL: ADHESIVE:ROLL-ON |
| 4-06-006-03 | TRANSPORTATION AND MARKETING OF PETROLEUM PRODUCTS CONSUMER (CORPORATE) FLEET REFUELING - STAGE II VAPOR LOSS W/CONTROLS |

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical 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 for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. 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.



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| Cas No. | Contaminant | PTE lbs/yr | PTE tons/yr | Actual lbs/yr | Actual tons/yr |
|----------------|--------------------------------------|-------------------|--------------------|----------------------|-----------------------|
| 007664-41-7 | AMMONIA | | | 358 | |
| 007440-39-3 | BARIUM | | | 2 | |
| 000071-43-2 | BENZENE | | | 43 | |
| 000106-97-8 | BUTANE | | | 1186 | |
| 000071-36-3 | BUTANOL | | | 21 | |
| 000630-08-0 | CARBON MONOXIDE | | | 70598036 | |
| 000056-23-5 | CARBON TETRACHLORIDE | | | 1 | |
| 000075-45-6 | CHLORODIFLUOR O-METHANE | | | 127 | |
| 000067-66-3 | CHLOROFORM | | | 1 | |
| 000075-71-8 | DICHLORODIFLUOROMETHANE | | | 165 | |
| 000075-09-2 | DICHLOROMETHANE | | | 2 | |
| 000075-10-5 | DIFLUOROMETHANE | | | 27 | |
| 000067-64-1 | DIMETHYL KETONE | | | 205 | |
| 000074-84-0 | ETHANE | | | 1752 | |
| 000811-97-2 | ETHANE, 1,1,1,2-TETRAFLUORO | | | 185 | |
| 000111-76-2 | ETHANOL, 2-BUTOXY- | | | 1 | |
| 000064-17-5 | ETHYL ALCOHOL (ETHANOL) | | | 853 | |
| 000050-00-0 | FORMALDEHYDE | | | 45 | |
| 000110-54-3 | HEXANE | | | 1017 | |
| 000067-63-0 | ISOPROPYL ALCOHOL | | | 36 | |
| 000074-82-8 | METHANE | | | 1382 | |
| 000067-56-1 | METHYL ALCOHOL | | | 49 | |
| 000078-93-3 | METHYL ETHYL KETONE | | | 1 | |
| 064742-88-7 | NAPHTHA, MEDIUM ALIPHATIC | | | 1 | |
| 000091-20-3 | NAPHTHALENE | | | 1 | |
| 007440-02-0 | NICKEL METAL AND INSOLUBLE COMPOUNDS | | | 1 | |
| 010024-97-2 | NITROUS OXIDE | | | 151 | |
| 0NY210-00-0 | OXIDES OF NITROGEN | 49060 | | 49060 | |
| 0NY075-00-0 | PARTICULATES | 4771 | | 4771 | |
| 000354-33-6 | PENTAFLUOROETHANE | | | 27 | |
| 000109-66-0 | PENTANE | | | 1470 | |
| 000107-41-5 | PENTANEDIOL, METHYL | | | 1 | |
| 0NY075-02-5 | PM 2.5 | | | 26 | |
| 0NY075-00-5 | PM-10 | | | 4615 | |
| 000074-98-6 | PROPANE | | | 904 | |
| 000071-23-8 | PROPANOL | | | 2 | |
| 007782-49-2 | SELENIUM | | | 31 | |
| 000506-64-9 | SILVER CYANIDE | | | 1 | |
| 000143-33-9 | SODIUM | | | 1 | |



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| | | |
|-------------|---------------|------|
| 001310-73-2 | CYANIDE | 1 |
| | SODIUM | |
| | HYDROXIDE | |
| 007446-09-5 | SULFUR | 904 |
| | DIOXIDE | |
| 000109-99-9 | TETRAHYDROFUR | 1 |
| | AN | |
| 000108-88-3 | TOLUENE | 2 |
| 00Y075-10-0 | UNSPECIATED | 130 |
| | PARTICULATES | |
| | (EMISSION | |
| | STATEMENT USE | |
| | ONLY) | |
| 00Y998-10-0 | UNSPECIATED | 2805 |
| | VOC (| |
| | EMISSION | |
| | STATEMENT USE | |
| | ONLY) | |
| 007440-62-2 | VANADIUM | 2 |
| 007440-66-6 | ZINC | 16 |

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 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 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item B: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.2(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 C: Certification by a Responsible Official - 6 NYCRR Part 201-6.2(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 D: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.4(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 E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.4(a)(3)



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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 F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(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 G: Property Rights - 6 NYCRR 201-6.4(a)(6)

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

Item H: Severability - 6 NYCRR Part 201-6.4(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 I: Permit Shield - 6 NYCRR Part 201-6.4(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 J: Reopening for Cause - 6 NYCRR Part 201-6.4(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



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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 2 01-6.7 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 K: 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 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 L: 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



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Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;
 - (3) During the period of the emergency the facility owner 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 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 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_02

Item B: 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

| Location | Regulation | Condition | Short Description |
|----------|------------|-----------|-------------------|
|----------|------------|-----------|-------------------|



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Facility/EU/EP/Process/ES

| | | | |
|---------------|-----------------------|----------------------------|---|
| FACILITY | ECL 19-0301 | 74 | Powers and Duties of the Department with respect to air pollution control |
| FACILITY | 40CFR 52-A.21 | 28, 29, 30, 31, 32, 33, 34 | Prevention of Significant Deterioration |
| U-61007 | 40CFR 52-A.21 | 50, 51, 52, 53, 54, 55, 56 | Prevention of Significant Deterioration |
| FACILITY | 40CFR 60-Db.42b | 35 | Standard for Sulfur Dioxide Firing Coal and/or Oil. |
| U-61007/-/SF7 | 40CFR 60-Db.43b(b) | 58 | Standard for Particulate Matter Firing Oil. |
| U-61007 | 40CFR 60-Db.43b(f) | 57 | Standard for Particulate Matter Opacity. |
| U-61006/-/SF5 | 40CFR 60-Db.44b(a)(1) | 1 -5 | Standard for Nitrogen Oxides Firing Natural Gas and Distillate Oil. (see narrative) |
| U-61006/-/SF6 | 40CFR 60-Db.44b(a)(1) | 1 -6 | Standard for Nitrogen Oxides Firing Natural Gas and Distillate Oil. (see narrative) |
| U-61007/-/SF8 | 40CFR 60-Db.44b(a)(1) | 60 | Standard for Nitrogen Oxides Firing Natural Gas and Distillate Oil. (see narrative) |
| U-61007/-/SF9 | 40CFR 60-Db.44b(a)(1) | 62 | Standard for Nitrogen Oxides Firing Natural Gas and Distillate Oil. (see narrative) |
| FACILITY | 40CFR 60-Db.48b(f) | 36 | Emission Monitoring for Particulate Matter and Nitrogen Oxides. |
| FACILITY | 40CFR 60-Db.49b(e) | 37 | Reporting and Recordkeeping Requirements. |
| U-COILS | 40CFR 60-TT | 64 | Metal Coil Surface Coating |
| FACILITY | 40CFR 68 | 19 | Chemical accident prevention provisions |
| FACILITY | 40CFR 82-F | 20 | Protection of Stratospheric Ozone - recycling and emissions reduction |
| FACILITY | 6NYCRR 200.6 | 1 | Acceptable ambient air quality. |
| FACILITY | 6NYCRR 200.7 | 10 | Maintenance of equipment. |
| FACILITY | 6NYCRR 201-1.4 | 75 | Unavoidable noncompliance and violations |
| FACILITY | 6NYCRR 201-1.7 | 11 | Recycling and Salvage |
| FACILITY | 6NYCRR 201-1.8 | 12 | Prohibition of reintroduction of collected contaminants to the |



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| | | | |
|----------|--------------------------|------------|-----------------------|
| FACILITY | 6NYCRR 201-3.2(a) | 13 | air |
| FACILITY | 6NYCRR 201-3.3(a) | 14 | Exempt Activities - |
| FACILITY | 6NYCRR 201-6 | 21, 38, 39 | Proof of eligibility |
| FACILITY | 6NYCRR 201-6.4(a)(4) | 15 | Trivial Activities - |
| FACILITY | 6NYCRR 201-6.4(a)(7) | 2 | proof of eligibility |
| FACILITY | 6NYCRR 201-6.4(a)(8) | 16, 1 -1 | Title V Permits and |
| FACILITY | 6NYCRR 201-6.4(c) | 3 | the Associated Permit |
| FACILITY | 6NYCRR 201-6.4(c)(2) | 4 | Conditions |
| FACILITY | 6NYCRR 201-6.4(c)(3)(ii) | 5 | General Conditions - |
| FACILITY | 6NYCRR 201-6.4(d)(4) | 22 | Requirement to |
| FACILITY | 6NYCRR 201-6.4(e) | 6 | Provide Information |
| FACILITY | 6NYCRR 201-6.4(f)(6) | 17 | General Conditions - |
| FACILITY | 6NYCRR 202-1.1 | 18 | Fees |
| FACILITY | 6NYCRR 202-2.1 | 7 | General Conditions - |
| FACILITY | 6NYCRR 202-2.5 | 8 | Right to Inspect |
| FACILITY | 6NYCRR 211.1 | 23 | Recordkeeping and |
| FACILITY | 6NYCRR 215.2 | 9 | Reporting of |
| FACILITY | 6NYCRR 225-2.7 | 24 | Compliance Monitoring |
| FACILITY | 6NYCRR 225-3.3(a) | 25 | Records of |
| U-METAL | 6NYCRR 226.2(f) | 69 | Monitoring, Sampling |
| U-METAL | 6NYCRR 226.2(g) | 70 | and Measurement |
| U-METAL | 6NYCRR 226.3(a)(4) | 71 | Reporting |
| FACILITY | 6NYCRR 227-1.2(a)(2) | 1 -7 | Requirements - |
| FACILITY | 6NYCRR 227-1.3(a) | 26 | Deviations and |
| | | | Noncompliance |
| | | | Compliance Schedules |
| | | | - Progress Reports |
| | | | Compliance |
| | | | Certification |
| | | | Off Permit Changes |
| | | | Required emissions |
| | | | tests. |
| | | | Emission Statements - |
| | | | Applicability |
| | | | Emission Statements - |
| | | | record keeping |
| | | | requirements. |
| | | | General Prohibitions |
| | | | - air pollution |
| | | | prohibited |
| | | | Open Fires - |
| | | | Prohibitions |
| | | | Reports, sampling and |
| | | | analysis of waste |
| | | | fuels A and B. |
| | | | RVP Limitation - May |
| | | | 1st through September |
| | | | 15th |
| | | | General requirments- |
| | | | no cleaning of |
| | | | absorbent materials |
| | | | General Requirments- |
| | | | cold cleaning record |
| | | | keeping |
| | | | Equipment |
| | | | specification-cold |
| | | | cleaning; 1.0 mm Hg |
| | | | vapor preasure |
| | | | Particulate Emissions |
| | | | Firing Liquid Fuels |
| | | | Excluding Distillate |
| | | | Oil. (see narrative) |
| | | | Smoke Emission |
| | | | Limitations. |



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| | | | | |
|-----------------------|--------------------------|----------------|----|-----------------------------------|
| FACILITY | 6NYCRR 227-2.4(b)(1)(ii) | 1 | -2 | 2010 NOx RACT presumptive limits. |
| FACILITY | 6NYCRR 227-2.4(c)(1)(ii) | 1 | -3 | 2010 NOx RACT presumptive limit. |
| FACILITY | 6NYCRR 227-2.5(b) | 1 | -4 | System averaging plan. |
| FACILITY | 6NYCRR 227-2.6(b) | 27 | | CEMS requirements |
| U- | 6NYCRR 228-1.3(b)(1) | 73 | | General Requirements |
| PAINT/24402/PT1/24402 | | | | - Record Keeping |
| U-FUELS | 6NYCRR 230.2(k) | 65, 66, 67, 68 | | Testing requirements |

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6 NYCRR 200.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6 NYCRR 200.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6 NYCRR 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, 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.

6 NYCRR 201-3.3 (a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department 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



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and any other state and federal air pollution control requirements, regulations, or law.

6 NYCRR Subpart 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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (d) (5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports,



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detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 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.

6 NYCRR 202-2.1

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

6 NYCRR 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.

6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

40 CFR Part 68

This Part lists the regulated substances and there 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, BROOKHAVEN NATIONAL LABORATORY has been determined to be subject to the following regulations:

40 CFR 52.21



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This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;
ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40 CFR 60.42b

40 CFR 60.43b (b)

40 CFR 60.43b (f)

This regulation specifies maximum allowable opacity for affected sources. The opacity of the emission may not exceed 20%, except for one six minute period when the maximum opacity may not exceed 27%.

40 CFR 60.44b (a) (1)

These standards apply to all boilers firing natural gas and/or distillate oil except as provided in 40 CFR 60.44b(a)(4) Duct Burners Used in a Combined Cycle System.

40 CFR 60.48b (f)

This regulation requires that standby methods of obtaining minimum emissions data for oxides of nitrogen be specified by the source owner or operator.

40 CFR 60.49b (e)

40 CFR Part 60, Subpart TT

40CFR60 Subpart TT, the federal New Source Performance Standard for Metal Coil Surface Coating, limits the emissions of volatile organic compounds from facilities constructed, modified or reconstructed since January 5, 1981. Compliance can be achieved either through the use of compliant coatings or by the use of emission control equipment.

6 NYCRR 211.1

This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

6 NYCRR 225-2.7



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6 NYCRR 225-3.3 (a)

6 NYCRR 226.2 (f)

6 NYCRR 226.2 (g)

6 NYCRR 226.3 (a) (4)

6 NYCRR 227-1.2 (a) (2)

This rule limits particulate emissions to 0.20 pound per million Btu heat input from any stationary combustion installation with a maximum heat input capacity exceeding 50 million Btu per hour but no greater than 250 million Btu per hour using oil (other than distillate oil), coal tar, or any liquid fuel derived from coal.

6 NYCRR 227-1.3 (a)

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.

6 NYCRR 227-2.4 (b) (1) (ii)

This rule limits NO_x RACT emissions to 0.15 pound per million Btu for any large boiler firing natural gas or residual oil.

6 NYCRR 227-2.4 (c) (1) (ii)

This rule limits NO_x RACT emissions to 0.20 pound per million Btu for any mid size boiler firing residual oil or natural gas.

6 NYCRR 227-2.5 (b)

System averaging plan NO_x RACT compliance option. The facility chose a system averaging approach to comply with the new lower NO_x limits.

6 NYCRR 227-2.6 (b)



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Any owner or operator of a combustion source subject to reasonably available control technology (RACT) requirements, under this subdivision, for NO_x and either is required or opts to employ a continuous emissions monitoring system (CEMS) must:

- 1) Submit a CEMS monitoring plan for approval by the Department,
- 2) Submit a CEMS certification protocol,
- 3) Meet CEMS monitoring requirements as detailed in this paragraph of this subdivision, and
- 4) Meet CEMS recordkeeping and reporting requirements as detailed in this paragraph of this subdivision.

6 NYCRR 228-1.3 (b) (1)

(b) Recordkeeping

(1) Except as provided for in Paragraph (2) of this Subdivision, the owner or operator of any emission source subject to this Subpart must maintain and, upon request, provide the department with a certification from the coating supplier/manufacturer which lists the parameters used to determine the actual VOC content of each as applied coating used at the facility. In addition, purchase, usage and/or production records of the coating material, including solvents, must be maintained in a format acceptable to the department and, upon request, these records must be submitted to the department within 90 days of receiving the request. Any facility required to perform the overall removal efficiency calculation set forth in Equation 2 of Subsection 228-1.5(c) of this Part, must maintain records to verify the parameters used in the calculation. A facility owner or operator must maintain a record that identifies each air cleaning device that has an overall removal efficiency of at least 90 percent. Any additional information required to determine compliance with this Part must be provided to the department in a format acceptable to the department. All records required by this paragraph must be maintained at the facility for a period of five years.

(2) Owners and operators of emission sources not subject to this Subpart as set forth in Paragraphs 228-1.1(b)(9) or (13) of this Part, or those sources that are using coatings not subject to specific requirements of this Subpart as set forth in Paragraph 228-1.3(e)(2), or Clauses 228-1.4(b)(5)(iii)(e), 228-1.4(b)(5)(iii)(i) or 228-1.4(b)(5)(iv) of this Part, must maintain records on an as used basis. The records must include the relevant regulatory citation of each exemption and quantity of coating used. If the exemption criteria are based on VOC usage, the records must contain calculations and supplier/manufacturer material data sheets for verification of VOC usage. All records required by this Paragraph must be maintained at the facility for a period of five years.

6 NYCRR 230.2 (k)

This regulation requires the owners and/or operators of stage II systems to perform dynamic pressure tests at 5 year intervals after commencing operations. The leak test criteria requirements are given in 6 NYCRR Part 230.2(k).

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Compliance Certification

Summary of monitoring activities at BROOKHAVEN NATIONAL LABORATORY:

| Location Facility/EU/EP/Process/ES | Cond No. | Type of Monitoring |
|---------------------------------------|----------|--|
| FACILITY | 28 | record keeping/maintenance procedures |
| FACILITY | 29 | work practice involving specific operations |
| FACILITY | 30 | work practice involving specific operations |
| FACILITY | 31 | work practice involving specific operations |
| FACILITY | 32 | work practice involving specific operations |
| FACILITY | 33 | work practice involving specific operations |
| FACILITY | 34 | work practice involving specific operations |
| U-61007 | 50 | work practice involving specific operations |
| U-61007 | 51 | monitoring of process or control device parameters as surrogate |
| U-61007 | 52 | monitoring of process or control device parameters as surrogate |
| U-61007 | 53 | monitoring of process or control device parameters as surrogate |
| U-61007 | 54 | continuous emission monitoring (cem) |
| U-61007 | 55 | continuous emission monitoring (cem) |
| U-61007 | 56 | work practice involving specific operations |
| FACILITY | 35 | work practice involving specific operations |
| U-61007/-/SF7 | 58 | intermittent emission testing |
| U-61007 | 57 | monitoring of process or control device parameters as surrogate |
| U-61006/-/SF5 | 1-5 | continuous emission monitoring (cem) |
| U-61006/-/SF6 | 1-6 | continuous emission monitoring (cem) |
| U-61007/-/SF8 | 60 | continuous emission monitoring (cem) |
| U-61007/-/SF9 | 62 | continuous emission monitoring (cem) |
| FACILITY | 36 | record keeping/maintenance procedures |
| FACILITY | 37 | work practice involving specific operations |
| U-COILS | 64 | record keeping/maintenance procedures |
| FACILITY | 5 | record keeping/maintenance procedures |
| FACILITY | 6 | record keeping/maintenance procedures |
| FACILITY | 7 | record keeping/maintenance procedures |
| FACILITY | 24 | record keeping/maintenance procedures |
| FACILITY | 25 | work practice involving specific operations |
| FACILITY | 1-7 | intermittent emission testing |
| FACILITY | 26 | monitoring of process or control device parameters as surrogate |
| FACILITY | 1-2 | intermittent emission testing |
| FACILITY | 1-3 | intermittent emission testing |
| FACILITY | 1-4 | record keeping/maintenance procedures |
| FACILITY | 27 | record keeping/maintenance procedures |
| U-PAINT/24402/PT1/24402 | 73 | record keeping/maintenance procedures |
| U-FUELS | 65 | monitoring of process or control device parameters as surrogate |
| U-FUELS | 66 | monitoring of process or control device parameters as surrogate |
| U-FUELS | 67 | record keeping/maintenance procedures |
| U-FUELS | 68 | monitoring of process or control device parameters as surrogate |

Basis for Monitoring

6NYCRR 202-1.1- This regulation requires stack testing once during the permit term. NOx testing for



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emission unit 61005 and Particulates testing for emission unit 61007.

6NYCRR 225-1.2 -This regulation requires monitoring of the amount of sulfur present in the #2 fuel oil burned at the Central Steam Facility. The sulfur content must not exceed 0.5% by weight.

6NYCRR 227-1.3(a)-This regulation requires Method 9 monitoring of opacity from stationary combustion installations which emits smoke. The opacity limit is 20% except for one six-minute period per hour of not more than 27% opacity.

NYCRR Part 230.2(k).-This regulation requires the owners and/or operators of stage II systems to perform dynamic pressure tests at 5 year intervals after commencing operations.

6NYCRR 234 .3 (b)-This regulation requires offset lithographic printing process, which is subject to Part 234 (began operation on or after September 1, 1988) and which uses fountain solutions containing volatile organic compounds, to use fountain solutions containing 10% by weight or less of volatile organic compounds.

40CFR52.21, Subpart A -This regulation requires continuous NOx emission monitoring for emission units 61006 and 61007. Also requires continuous Opacity monitoring for emission unit 61007.