



**New York State Department of Environmental Conservation  
Permit Review Report**

**Permit ID: 2-6201-00056/00005  
01/11/2011**

**Facility Identification Data**

Name: COLUMBIA UNIVERSITY MEDICAL CENTER  
Address: 630-650 & 722 W 168TH ST  
NEW YORK, NY 10032

**Owner/Firm**

Name: TRUSTEES OF COLUMBIA UNIVERSITY IN CITY OF NEW YORK  
Address: 535 W 116TH ST  
NEW YORK, NY 10027, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

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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**

This Title V is for the the Columbia University Medical Center is located at 630 - 650 West 168th Street and Broadway and comprises 13 buildings in various locations between Riverside Drive to the west, Auduborn Ave to the east, Haven Avenue and 173rd Street to the north and 165th Street to the south.

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**Attainment Status**

COLUMBIA UNIVERSITY MEDICAL CENTER is located in the town of MANHATTAN in the county of NEW YORK.

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)	MODERATE NON-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:**

The Columbia University Medical Center is located at 630 - 650 West 168th Street and Broadway and comprises 13 buildings in various locations between Riverside Drive to the west, Auduborn Ave to the east, Haven Avenue and 173rd Street to the north and 165th Street to the south. One residential structure is located at 390 Fort Washington Avenue, apart from the main cluster of facility buildings. There are three operating entities at Columbia, the residential entity comprising dormitory use and consisting of 7 buildings (Bard Tower and Hall, 154 Haven Residence Administration, 106 Haven Residence, and 390 Fort Washington Avenue), the Research and Development entity consisting of 3 buildings (Armand Hammer, William Black, and the College of Physicians and Surgeons-known as "P&S"), and the Audobon entity consisting of 3 buildings (Audobon I - known as Lasker, Audobon II - known as Berrie and Audobon III - known as Irving Pavilion). The structure located at 390 Fort Washington Avenue is isolated from the main campus described above, but has been included in this application.

**Permit Structure and Description of Operations**

The Title V permit for COLUMBIA UNIVERSITY MEDICAL CENTER 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



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(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.

COLUMBIA UNIVERSITY MEDICAL CENTER is defined by the following emission unit(s):

Emission unit 1PAS01 - Emission Unit 1-PAS01 represents a single crematory waste (type 4) incinerator. The type 4 waste consists of animal carcasses. The incinerator has primary and secondary combustion chambers that both fire natural gas. The primary chamber is rated at 8.0 MMBtu/hr and the secondary chamber is rated at 1.45 MMBtu/hr. The incinerator was installed in 1987 and was completely rebuilt during late 1995 and early 1996. The incinerator uses a breeching scrubber for emission control and has a maximum charge of 200 pounds per hour via hydraulic ram feed. The unit runs twice per week and waste is charged at the 200 pound per hour rate between the hours of 8 am to 3 pm. The unit is activated at 7 am and requires one hour to ramp up. Waste is then fed between 8 a m and 3 pm and then the unit ramps down for another hour. Emission unit 1-PAS01 is located in the PAS (P&S) building and vents to emission point PAS01. This incinerator has the following emission source id: PAS01. The incinerator was manufactured by Morse Boulger and the unit carries a "P200" model number.

Emission unit 1PAS01 is associated with the following emission points (EP):  
PAS01

Process: GPS is located at Crematory - PAS Bldg, Building PAS - PAS01: Morse Boulger P200 incinerator rated @ 200 pounds/hr.

PASGS: Unspecified Gas Scrubber Emission Control

Emission unit 1HAVEN - Emission Unit 1-HAVEN represents 3 identical Rockmills Steel Products boilers, each rated at 16.9 MMBtu/hr and each firing No. 6 fuel oil. Two of the boilers had new burners installed in 1991, the third boiler had a new burner installed in 1997. These three boilers vent to a single flue stack, designated emission point HAVEN and are located in building HAV. The boilers have the following emission source ids: HAV01, HAV02, HAV03. Throughputs listed are based on the three 16.9 mmBtu/hr boilers firing No. 6 Oil with a heating value of 148,000 Btu/gal.

Emission unit 1HAVEN is associated with the following emission points (EP):  
HAVEN

Process: OH1 is located at 100 Haven Tower, Building HAV - One 16.9 mmbtu/hr Rockmills Steel Products Boiler

Process: OH2 is located at 100 Haven Tower, Building HAV - One 16.9 mmbtu/hr Rockmills Steel Products Boiler

Process: OH3 is located at 100 Haven Tower, Building HAV - One 16.9 mmbtu/hr Rockmills Steel Products Boiler

Emission unit 1IRV01 - Emission Unit 1-IRV01 represents 6 dual fuel (natural gas and No. 2 fuel oil) fired Cleaver Brooks boilers. Three of the boilers (IRV01, IRV02, IRV03) are rated at 16.75 MMBtu/hr



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each, are located in building IRV, and all vent to a single stack (IRV01). The boilers are Cleaver Brooks Model 200-400-125. One boiler (IRV06), a Cleaver Brooks Model 200-125-125 rated at 5.3 MMBtu/hr also vents to emission point IRV01. All 4 of these boilers were installed in 2002. Two of the boilers are rated at 12.5 MMBtu/hr each, are located in the building IRV and both vent to a single stack (IRV02). These boilers are Cleaver Brooks Model 200-300-150 and were installed in 2004. These two boilers have the following emission source ids: IRV04 and IRV05.

Emission unit 1IRV01 is associated with the following emission points (EP):  
IRV01, IRV02

Process: GR1 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: GR2 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: GR3 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: GR4 is located at Audubon III Bldg, Building IRV - One 12.5 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: GR5 is located at Audubon III Bldg, Building IRV - One 12.5 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: GR6 is located at Audubon III Bldg, Building IRV - One 5.3 mmbtu/hr Natural Gas Fired Cleaver Brooks Boiler

Process: OR1 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Process: OR2 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Process: OR3 is located at Audubon III Bldg, Building IRV - One 16.75 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Process: OR4 is located at Audubon III Bldg, Building IRV - One 12.5 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Process: OR5 is located at Audubon III Bldg, Building IRV - One 12.5 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Process: OR6 is located at Audubon III Bldg, Building IRV - One 5.3 mmbtu/hr Cleaver Brooks Boiler - No 2 Fuel Oil fired

Emission unit 1NSR01 - Emission unit 1-NSR01 represents all new sources added during the 1999 to 2004 contemporaneous period. These sources represent those that have operating limits (fuel use for the boilers/water heaters and operating hours for the emergency power engines). In order to limit NOx emission increases to less than 25 tons per year over the contemporaneous period. Note that emissions of



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VOC, on an unrestricted PTE basis, are well below 25 tons per year. As such, operating limits applied to control NOx will, by default, limit VOC to well under the NNSR applicability threshold of 25 tons per year. Emission unit 1-NSR01 consists of the following emission sources: IRVEP, BBEP1, BBEP2, HAMEP, 722EP, BERR1, BERR2 and BERR3. Emission sources BERR1, BERR2 and BERR3 emit to emission point BERR1. Emission source BBEP1 emits to emission point BBEP1. Emission source BBEP2 emits to emission point BBEP2. Emission source HAMEP emits to emission point HAMEP. Emission source 722EP emits to emission point 722EP.

Emission unit 1NSR01 is associated with the following emission points (EP):  
722EP, BBEP1, BBEP2, BERR1, HAMEP, IREVP

Process: 772 is located at 772 W 168th Street, Building PI - Emission source 772EP (449 HP Caterpillar 3406 engine) fires #2 distillate (diesel) fuel oil.

Process: BG1 is located at Berrie Bldg, Building BER - Emission source BERR1 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires natural gas.

Process: BG2 is located at Berrie Bldg, Building BER - Emission source BERR2 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires natural gas.

Process: BG3 is located at Berrie Bldg, Building BER - Emission source BERR3 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires natural gas.

Process: BO1 is located at Berrie Bldg, Building BER - Emission source BERR1 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires #2 distillate fuel oil.

Process: BO2 is located at Berrie Bldg, Building BER - Emission source BERR2 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires #2 distillate fuel oil.

Process: BO3 is located at Berrie Bldg, Building BER - Emission source BERR3 (6 MMBtu/hr Cleaver Brooks 1200-600-160 boiler) fires #2 distillate fuel oil.

Process: BP1 is located at Black Bldg, Building BLK - Emission source BBEP1 (1818 HP Caterpillar 3512 engine) fires #2 distillate (diesel) fuel oil.

Process: BP2 is located at Black Bldg, Building BLK - Emission source BBEP2 (1818 HP Caterpillar 3512 engine) fires #2 distillate (diesel) fuel oil.

Process: DRV is located at Audubon III Bldg, Building IRV - Emission source IRVEP (200 HP Caterpillar 3516 engine) fires #2 distillate (diesel) fuel oil.

Process: HMP is located at Hammer Bldg., Building HAM - Emission source HAMEP (1818 HP Caterpillar 3512 engine) fires #2 distillate (diesel) fuel oil.

Emission unit 1-LASK - Emission Unit 1-LASK represents 1 Bryan Flexible Tube Boiler rated at 2.4 mmBTU/hr, 2 York Paraflow Absorption Units ('chillers') rated at 6.7 mmBTU/hr each and 1 Detroit Diesel 750 KL generator rated at 8.83 mmBTU/hr(3518 hp).



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Process: BF2 Bryan Flexible Tube Boiler firing #2 oil.

Process: BFG Bryan Flexible Tube Boiler firing natural gas.

Process: DD2 Detroit Diesel 750 KL firing #2 oil.

Process: YP2 York Paraflow (Chiller) firing #2 oil.

Process: YPG York Paraflow (chiller) firing natural gas.

**Title V/Major Source Status**

COLUMBIA UNIVERSITY MEDICAL CENTER is subject to Title V requirements. This determination is based on the following information:

The facility, Columbia University Medical Center is a major facility because the facility-wide potential emissions of Nitrogen Oxides are greater than the major source thresholds of 25 tons/year.

**Program Applicability**

The following chart summarizes the applicability of COLUMBIA UNIVERSITY MEDICAL CENTER with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
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



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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 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**

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**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
1-03-004-02	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - RESIDUAL OIL 10-100MMBTU/HR **
1-03-005-02	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - DISTILLATE OIL 10-100MMBTU/HR **
1-03-005-03	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - DISTILLATE OIL <10MMBTU/HR **
1-03-006-02	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
1-03-006-03	EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL COMMERCIAL/INSTITUTIONAL BOILER - NATURAL GAS
2-03-001-01	Less Than 10 MMBtu/Hr INTERNAL COMBUSTION ENGINES - COMMERCIAL/INSTITUTIONAL COMMERCIAL/INSTITUTIONAL IC ENGINE - DISTILLATE OIL (DIESEL) Reciprocating
3-15-021-01	PHOTOGRAPHIC EQUIPMENT HEALTH CARE - CREMATORIIUMS CREMATORY STACK

**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 Range represents an emission range for a contaminant.

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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
000106-99-0	1,3-BUTADIENE	> 0	but < 10 tpy
000075-07-0	ACETALDEHYDE	> 0	but < 10 tpy
000107-02-8	ACROLEIN	> 0	but < 10 tpy
007440-36-0	ANTIMONY	> 0	but < 10 tpy
007440-38-2	ARSENIC	> 0	but < 10 tpy
000071-43-2	BENZENE	> 0	but < 10 tpy
007440-41-7	BERYLLIUM	> 0	but < 10 tpy
007440-43-9	CADMIUM	> 0	but < 10 tpy
000630-08-0	CARBON MONOXIDE	>= 40	tpy but < 50 tpy
007440-47-3	CHROMIUM	> 0	but < 10 tpy
007440-48-4	COBALT	> 0	but < 10 tpy
025321-22-6	DICHLOROBENZENE	> 0	but < 2.5 tpy
000100-41-4	ETHYLBENZENE	> 0	but < 10 tpy
000050-00-0	FORMALDEHYDE	> 0	but < 10 tpy
0NY100-00-0	HAP	> 0	but < 2.5 tpy
000110-54-3	HEXANE	> 0	but < 10 tpy
007439-92-1	LEAD	> 0	but < 10 tpy
007439-96-5	MANGANESE	> 0	but < 10 tpy
007439-97-6	MERCURY	> 0	but < 10 tpy
000091-20-3	NAPHTHALENE	> 0	but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS	> 0	but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 100	tpy but < 250 tpy
0NY075-00-0	PARTICULATES	>= 10	tpy but < 25 tpy
007723-14-0	PHOSPHORUS (YELLOW)	> 0	but < 10 tpy
0NY075-00-5	PM-10	>= 10	tpy but < 25 tpy
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBONS	> 0	but < 10 tpy
007782-49-2	SELENIUM	> 0	but < 10 tpy
007446-09-5	SULFUR DIOXIDE	>= 50	tpy but < 100 tpy
000108-88-3	TOLUENE	> 0	but < 10 tpy
0NY998-00-0	VOC	>= 2.5	tpy but < 10 tpy
001330-20-7	XYLENE, M, O & P MIXT.	> 0	but < 10 tpy

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: Emergency Defense - 6 NYCRR 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:

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- (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 - 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 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 - 6 NYCRR 201-6.5(a)(5)**

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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 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

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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 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.

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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 Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
-- FACILITY	ECL 19-0301	56	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 60-A.12	39	General provisions - Circumvention
FACILITY	40CFR 60-A.14	40	General provisions - Modification
FACILITY	40CFR 60-A.15	41	General provisions - Reconstruction
FACILITY	40CFR 60-A.4	30	General provisions - Address
FACILITY	40CFR 60-A.7(a)	31	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(b)	32	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(c)	33	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(d)	34	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(e)	35	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(f)	36	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(g)	37	Notification and Recordkeeping
FACILITY	40CFR 60-A.9	38	General provisions - Availability of information
1-HAVEN	40CFR 60-Dc.42c(d)	50	Standard for Sulfur Dioxide Firing Oil. (see narrative)
1-IRV01	40CFR 60-Dc.42c(d)	53	Standard for Sulfur Dioxide Firing Oil. (see narrative)
1-HAVEN	40CFR 60-Dc.48c(f)(1)	51	Reporting and Recordkeeping Requirements (distillate oil).
1-IRV01	40CFR 60-Dc.48c(f)(1)	54	Reporting and Recordkeeping Requirements (distillate oil).
1-HAVEN	40CFR 60-Dc.48c(f)(2)	52	Reporting and Recordkeeping Requirements (residual oil).
1-IRV01	40CFR 60-Dc.48c(f)(2)	55	Reporting and Recordkeeping

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FACILITY	40CFR 63-ZZZZ.6585	42	Requirements (residual oil). Reciprocating Internal Combustion Engine NESHAP - Applicability
FACILITY	40CFR 63-ZZZZ.6603 (a)	43	Emission limitations and operating limitations to operate an existing stationary CI RICE at an area source of HAP emissions
FACILITY	40CFR 63-ZZZZ.6625 (e)	44	Monitoring, installation, collection, operation, and maintenance requirements
FACILITY	40CFR 63-ZZZZ.6640 (f)	45	Compliance provisions
FACILITY	40CFR 63-ZZZZ.6665	46	Stationary Reciprocating Internal Combustion Engines - General provisions
FACILITY	40CFR 68	22	Chemical accident prevention provisions
FACILITY	40CFR 82-F	23	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.1	24	Definitions.
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	11	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	57	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	12	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	13	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2 (a)	14	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3 (a)	15	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	25, 26, 47, 48	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5 (a) (4)	16	General conditions
FACILITY	6NYCRR 201-6.5 (a) (7)	2	General conditions Fees
FACILITY	6NYCRR 201-6.5 (a) (8)	17	General conditions
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-	5	Permit conditions for



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	6.5 (c) (3) (ii)			Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5 (d) (5)	18		Compliance schedules
FACILITY	6NYCRR 201-6.5 (e)	6		Compliance Certification
FACILITY	6NYCRR 201-6.5 (f) (6)	19		Off Permit Changes
FACILITY	6NYCRR 202-1.1	20		Required emissions tests.
FACILITY	6NYCRR 202-2	27		Emission Statements
FACILITY	6NYCRR 202-2.1	7		Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8		Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.2	58		General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	21		General Prohibitions - visible emissions limited
FACILITY	6NYCRR 215	9		Open Fires
FACILITY	6NYCRR 215.2	10		Open Fires - Prohibitions
1-PAS01	6NYCRR 219-4.11	69		Inspection and reporting.
1-PAS01	6NYCRR 219-4.3	63		Particulate emissions.
1-PAS01	6NYCRR 219-4.4	64		Design requirements.
1-PAS01	6NYCRR 219-4.5	65		Operating requirements.
1-PAS01/PAS01/GPS	6NYCRR 219-4.5 (a)	70		Operating requirements.
1-PAS01	6NYCRR 219-4.6	66		Other wastes.
1-PAS01	6NYCRR 219-4.7	67		Continuous emission monitoring.
1-PAS01	6NYCRR 219-4.8	68		Stack testing.
FACILITY	6NYCRR 225-1.2 (a) (2)	28, 29		Sulfur in Fuel Limitations Post 12/31/87.
1-HAVEN	6NYCRR 227.2 (b) (1)	49		Particulate emissions.
1-HAVEN	6NYCRR 227-2.4 (d)	59		Small boilers, small combustion turbines, and small stationary internal combustion engines.
1-IRV01	6NYCRR 227-2.4 (d)	60		Small boilers, small combustion turbines, and small stationary internal combustion engines.
1--LASK	6NYCRR 227-2.4 (d)	61		Small boilers, small combustion turbines, and small stationary internal combustion engines.
1-NSR01	6NYCRR 227-2.4 (d)	62		Small boilers, small combustion turbines, and small stationary internal combustion engines.

**Applicability Discussion:**

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

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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 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.



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6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR 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.



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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 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 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

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.

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, COLUMBIA UNIVERSITY MEDICAL CENTER has been determined to be subject to the following regulations:



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40 CFR 60.12

This regulation prohibits an owner or operator from concealing emissions in violation of applicable standards by any means.

40 CFR 60.14

This regulation defines the term modification and what is and is not considered to be a modification, for the purpose of rule applicability.

40 CFR 60.15

This regulation defines the term reconstruction and what is and is not considered to be a reconstruction project, for the purpose of rule applicability.

40 CFR 60.4

This condition lists the USEPA Region 2 address for the submittal of all communications to the "Administrator". In addition, all such communications must be copied to NYSDEC Bureau of Quality Assurance (BQA).

40 CFR 60.42c (d)

This regulation requires 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.

40 CFR 60.48c (f) (1)

Fuel supplier certifications for distillate oil shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60-Dc.41c

40 CFR 60.48c (f) (2)

This condition sets forth the requirements to be met by the fuel supplier. These requirements apply to both distillate and residual oil.

40 CFR 60.7 (a)

This regulation requires any owner or operator subject to a New Source Performance Standard (NSPS) to furnish the Administrator with notification of the dates of: construction or reconstruction, initial startup, any physical or operational changes, commencement of performance testing for continuous monitors and anticipated date for opacity observations as required.

40 CFR 60.7 (b)

This regulation requires the owner or operator to maintain records of the occurrence and duration of any startup, shutdown, or malfunction of the source or control equipment or continuous monitoring system.



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40 CFR 60.7 (c)

This requirement details the information to be submitted in excess emissions and monitoring systems performance reports which must be submitted at least semi-annually for sources with compliance monitoring systems.

40 CFR 60.7 (d)

This condition specifies the required information and format for a summary report form and details when either a summary form and/or excess emissions reports are required.

40 CFR 60.7 (e)

This condition specifies how sources that remain in continuous compliance, and are subject to monthly or quarterly reporting, can reduce reporting frequency to semiannually.

40 CFR 60.7 (f)

This condition specifies requirements for maintenance of files of all measurements, including continuous monitoring system (CMS), monitoring device, and performance testing measurements; all CMS performance evaluations; all CMS or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices for at least two years.

40 CFR 60.7 (g)

This condition allows source owners to use reporting required for state or local agencies to satisfy the paragraph (a) reporting requirements of this section of this rule.

40 CFR 60.9

This rule citation allows the public access to any information submitted to the EPA Administrator (or state contact), in conjunction with a project subject to this section of the regulation.

40 CFR 63.6585

This condition details what criteria are used to determine if a reciprocating internal combustion engine is subject to the provisions of this NESHAP rule. If the engine meets the rule's definition of reciprocating internal combustion engine, and is located at a facility that emits at least 10 tons of a single hazardous air pollutant or 25 tons of all hazardous air pollutants, then the engine will need to meet the provisions in this rule.

40 CFR 63.6603 (a)

This regulation requires Compliance with the numerical emission limitations established in this subpart as based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.



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(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

40 CFR 63.6625 (e)

This regulation requires the owners or operator of an existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions, an existing stationary emergency RICE, or an existing stationary RICE located at an area source of HAP emissions must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

40 CFR 63.6640 (f)

This regulation sets forth the compliance provisions for the operation of reciprocating internal combustion engines in emergency situations.

40 CFR 63.6665

This regulation specifies which provisions of the General provisions (Subpart A of 40 CFR 63) apply to the owner or operators of stationary internal combustion engines at facilities with emissions of hazardous air pollutants.

6 NYCRR 200.1

This section contains a definition of terms referred to throughout New York's entire codes, rules and regulations.

6 NYCRR 219-4.11

This section sets forth the Inspection and Reporting requirements for the crematories. Each owner or operator must inspect the facility annually and submit a report to the commissioner, certifying that the condition and operation of that facility, including the calibration of all instrumentation, meet manufacturer's specifications.

6 NYCRR 219-4.3

This section sets forth the emission standards of particulates for the crematories, which is 0.08 grains per



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dry standard cubic foot of flue gas, corrected to seven percent oxygen.

6 NYCRR 219-4.4

This section sets forth the design requirements (temperatures, auxiliary burners and air lock system) for the crematories.

6 NYCRR 219-4.5

This section sets forth the operating requirements (opacity, primary combustion chamber temperature and notifying requirements) of the crematories.

6 NYCRR 219-4.5 (a)

This section sets forth the emission standards of six-minute average opacity for the crematories, which is less than 10 percent.

6 NYCRR 219-4.6

This section sets forth the requirements of not to burn other wastes such as municipal solid waste, infectious waste (in excess of 5 percent of the total permitted hourly charging rate), radioactive waste, and hazardous waste, in the crematories.

6 NYCRR 219-4.7

This section sets forth the continuous emission monitoring (CEMs) requirements for the crematories, which are primary and secondary (or last) combustion chamber exit temperatures.

6 NYCRR 219-4.8

This section sets forth various stack testing requirements as indicated below, for the crematories.

(a) Each incinerator to be installed in a crematory facility must demonstrate compliance by either (1) onsite testing, or (2) submittal of a test report for an identical incinerator tested in New York and approved by the commissioner.

(b) A test protocol, including the configuration of breaching, stack and test port locations and test methods must be submitted for the commissioner's approval at least 30 days prior to stack testing.

6 NYCRR 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.

6 NYCRR 227.2 (b) (1)

This regulation is from the 1972 version of Part 227 and still remains as part of New York's SIP. The rule establishes a particulate limit of 0.10 lbs/mmBtu based on a 2 hour average emission for any oil fired stationary combustion installation.

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6 NYCRR 227-2.4 (d)

NOx RACT requirements for small boilers, small combustion turbines, and small stationary internal combustion engines.

6 NYCRR Subpart 202-2

This subpart of Part 202 sets forth the general requirements for submitting an annual statement or emissions.

**Compliance Certification**

**Summary of monitoring activities at COLUMBIA UNIVERSITY MEDICAL CENTER:**

<b>Location Facility/EU/EP/Process/ES</b>	<b>Cond No.</b>	<b>Type of Monitoring</b>
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FACILITY	33	record keeping/maintenance procedures
1-HAVEN	50	work practice involving specific operations
1-IRV01	53	work practice involving specific operations
1-HAVEN	51	record keeping/maintenance procedures
1-IRV01	54	record keeping/maintenance procedures
1-HAVEN	52	record keeping/maintenance procedures
1-IRV01	55	record keeping/maintenance procedures
FACILITY	42	record keeping/maintenance procedures
FACILITY	43	record keeping/maintenance procedures
FACILITY	44	record keeping/maintenance procedures
FACILITY	45	record keeping/maintenance procedures
FACILITY	46	record keeping/maintenance procedures
FACILITY	24	work practice involving specific operations
FACILITY	26	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	27	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
1-PAS01	69	record keeping/maintenance procedures
1-PAS01	63	intermittent emission testing
1-PAS01	64	monitoring of process or control device parameters as surrogate
1-PAS01	65	monitoring of process or control device parameters as surrogate
1-PAS01/PAS01/GPS	70	record keeping/maintenance procedures
1-PAS01	67	record keeping/maintenance procedures
FACILITY	28	work practice involving specific operations
FACILITY	29	work practice involving specific operations
1-HAVEN	49	intermittent emission testing
1-HAVEN	59	record keeping/maintenance procedures
1-IRV01	60	record keeping/maintenance procedures
1--LASK	61	record keeping/maintenance procedures
1-NSR01	62	record keeping/maintenance procedures

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**Basis for Monitoring**



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Conditions under 40 CFR 60-Dc.42c and 40 CFR 60-Dc.48c: These conditions require the facility to follow and demonstrate compliance with the provisions of federal New Source Performance Standard (NSPS) regulations for standards of sulfur dioxide (SO<sub>2</sub>) and particulate matter (PM) because it has maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). The 60.42c condition requires that #6 fuel oil fired not contain over 0.5% of sulfur. These conditions reduce the levels of sulfur dioxide (SO<sub>2</sub>) and particulate matter (PM) emitted into the atmosphere.

For 40 CFR 60 Subpart IIII, it is not applicable to the current engines located at the facility due to the listed installed dates. They predate the commencement and manufactured start dates.

Conditions under 40 CFR 63 Subpart ZZZZ: These regulations require the facility to maintain records about the use and maintenance of their emergency engines. Since there are emergency engines at this facility, which is an 'area source' for HAPs, there is no performance testing required. The facility is required to perform maintenance annually on each engine. These conditions are to help limit the HAPs emitted from the facility.

Under the condition for 6 NYCRR 200.1, under this section, the regulations define the meaning of emergency power generating stationary internal combustion engines. This work practice involving specific operations condition was created to keep track of the operation of the 'labeled' emergency engines. The facility is through fore required to maintain a yearly record, monthly tabulated, in order to prove that emergency engines are not exceeding the 500 hours maximum.

Condition under 6 NYCRR Part 201-6: The facility is required to maintain fuel usage records for all emission installations that are between the 1 to 25 mmBTU/hr. This will indirectly track the NO<sub>x</sub> output and the applicability of NNSR for future projects.

Condition under 6 NYCRR Part 201-6.5(c)(3)(ii): This is a facility-wide condition that applies to monitoring conditions in all Title V Permits. All facilities that are subject to the Title V requirements must submit reports of any required monitoring to the NYSDEC every six months.

Condition under 6 NYCRR Part 201-6.5(e): This is a facility-wide record keeping requirement that applies to all Title V facilities. These facilities must submit an annual compliance certification to the NYSDEC and the USEPA.

Condition under 6 NYCRR Part 202-2.1: This facility level monitoring condition is a requirement for all Title V facilities. These facilities must submit an annual emission statement by April 15th of each year.

Conditions under 6 NYCRR 219-4 and 219-6: These are Emission Unit level monitoring conditions waste incinerators/crematories in New York City, Nassau, and Westchester counties. These conditions require the facility to maintain minimum temperatures and to observe opacity, conduct annual inspections and stacking testing for Particulate Matter (PM).

Conditions under 6 NYCRR Part 225-1.2(a)(2): These are facility level conditions regarding the sulfur content of fuel oil used at the facility. The sulfur content must be certified by the seller. The facility must maintain a log of the sulfur content of oil on a per delivery basis. This is reduce the amount of sulfur dioxide emitted from the facility.

Condition under 6 NYCRR 227.2(b)(1): This is a monitoring, testing and reporting requirement for particulate emissions from the stationary combustion installations, to reduce to the amount of particle emitted into the atmosphere.



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Condition under 6 NYCRR 227-2.4(d): This is a NO<sub>x</sub> RACT condition for Oxides of Nitrogen for small boilers. This is to reduce NO<sub>x</sub> emitted into the atmosphere.