Division of Air Resources

Permit Review Report

Permit ID: 4-0122-00044/00014
Renewal Number: 2
04/11/2022

Facility Identification Data
Name: BETHLEHEM ENERGY CENTER
Address: 380 RIVER RD
GLENMONT, NY 12077

Owner/Firm
Name: GB II New York LLC
Address: 300 Atlantic St 5th Fl
Stamford, CT 06901, USA
Owner Classification: Corporation/Partnership

Permit Contacts
Division of Environmental Permits:
Name: ANGELIKA R STEWART
Address: NYSDEC
65561 St Hwy 10
Stamford, NY 12167
Phone:6076527741

Division of Air Resources:
Name: JAMES E HOGAN, III
Address: NYSDEC - HEADQUARTERS
625 BROADWAY
ALBANY, NY 12233-3258
Phone:5184028401

Air Permitting Contact:
Name: Joseph Walz III
Address: PSEG Power New York LLC
PO Box 309
Glenmont, NY 12077-0309
Phone:

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
Renewal of Title V permit for the facility.

Attainment Status

Permit ID: 4-0122-00044/00014
Renewal Number: 2
04/11/2022

BETHLEHEM ENERGY CENTER is located in the town of BETHLEHEM in the county of ALBANY. 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*	MARGINAL 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:
A combined cycle power plant, consisting of three combustion generating turbines burning pipeline quality natural gas and low sulfur distillate oil with supplementary-fired HRSGs, a steam turbine generator, a pipeline quality natural gas-fired package boiler, and exempt activities. The plant has a nominal generating capacity of 750 MW.

Permit Structure and Description of Operations
The Title V permit for BETHLEHEM ENERGY 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 (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.

BETHLEHEM ENERGY CENTER is defined by the following emission unit(s):

Emission unit U00020 - This emission unit consists of a John Deere Model 6081H diesel-powered fire pump engine. The engine will use low sulfur (0.05% or less) fuel oil.

Emission unit U00020 is associated with the following emission points (EP):
ST018
Process: FP1 is located at Building FPBLDG - Operation of the Diesel Fire Pump operating on low sulfur, No. 2 fuel oil for not more than 500 hours per year. Emission Unit U-00020 is an exempt activity pursuant to 6 NYCRR 201-3.2(c)(6) and 6 NYCRR 200.1(cq); emergency power generating stationary internal combustion engines. On and after 5/13/2013, U-00020 must comply with the applicable requirements in 40 CFR 63, Subpart ZZZZ for an existing emergency stationary reciprocating internal combustion engine (RICE) at an area source of HAPs.

Emission unit U00010 - This emission unit consists of three power trains and ancillary equipment. Each power train consists of a General Electric Frame 7FA combustion turbine generator (CTG) and a supplementary fired heat recovery steam turbine generator (HRSG). The CTG will fire pipeline quality natural gas; low sulfur fuel oil (as defined in 40 CFR §72.2) will be the secondary fuel. The HRSG duct burners will fire only pipeline quality natural gas.

Emission unit U00010 is associated with the following emission points (EP):
ST001, ST002, ST003
Process: AG1 is located at Building CTG HRSG - Continuous operation of all three (3) CTGs on natural gas at a minimum load while utilizing the GE Advanced Gas Process (AGP) Turndown Software ("Minimum Load "). Minimum Load with AGP Turndown Software will take the place of OpFlex™ mode (Process OF1 and OF2) once the AGP Hardware upgrades to the CTGs have been implemented.
No changes to the concentration or mass emission limits in the current Title V permit are necessary for the CTGs to run the Minimum Load with AGP Turndown Software while firing natural gas.

Process: AG2 is located at Building CTG HRSG - Continuous operation of all three (3) CTGs on low sulfur fuel oil (as defined in 40 CFR §72.2) while utilizing Minimum Load with AGP Turndown Software.
No changes to the concentration or mass emission limits in the current Title V permit are necessary for the CTGs to run the Minimum Load with AGP Turndown Software while firing low sulfur fuel oil.
This Process involving operation of the CTGs on fuel oil is designated as an AOS for operational flexibility as defined by 6 NYCRR Part 201-6.4(f). The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.4 (c) & (e).

Process: CT1 is located at Building CTG HRSG - Combustion turbine generator operating on pipeline quality natural gas at steady state conditions without supplementary duct firing. Steady state is defined as those periods when the combustion turbine generator is operating in mode 6Q as indicated by the GE Mark VI distributed control system and the combustion turbine generator is not operating in start-up, shutdown, or fuel switching mode.

Process: CT2 is located at Building CTG HRSG - Combustion turbine generator operating on low sulfur

fuel oil (as defined in 40 CFR §72.2) at steady state conditions without supplementary duct firing. Steady state is defined as those periods when the combustion turbine generator is operating at 1:1 fuel to water ratio plus 15 minutes and the temperature of the heat recovery steam generator (HRSG) is at 550 degrees Fahrenheit or greater as indicated by the GE Mark VI Distributed Control System and the combustion turbine generator is not operating in start-up, shutdown, or fuel switching mode.

This Process involving operation of the combustion turbine generators on fuel oil is designated as an Alternate Operating Scenario (AOS) for operational flexibility as defined by 6 NYCRR Part 201-6.5(f). All monitoring, testing, recordkeeping and reporting requirements specified in the Permit for this AOS Process are deferred until the Process is used. If any of the three combustion turbines comprising Emission Unit U-00010 operates on fuel oil using this Process, then all required monitoring, testing, recordkeeping and reporting must be completed for that combustion turbine as specified in the associated applicable requirements and compliance conditions. The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.5(c) & (e).

Process: CT3 is located at Building CTG HRSG - Pipeline quality natural gas burned in the combustion turbine generators with pipeline quality natural gas fired in the duct burners. This operating condition is limited to periods when the combustion turbine is operating at full load.

Process: CT4 is located at Building CTG HRSG - Low sulfur fuel oil (as defined in 40 CFR §72.2) burned in the combustion turbine generators with pipeline quality natural gas fired in the duct burners. This operating condition is limited to periods when the combustion turbine is operating at full load.

This Process involving operation of the combustion turbine generators on fuel oil is designated as an Alternate Operating Scenario (AOS) for operational flexibility as defined by 6 NYCRR Part 201-6.5(f). All monitoring, testing, recordkeeping and reporting requirements specified in the Permit for this AOS Process are deferred until the Process is used. If any of the three combustion turbines comprising Emission Unit U-00010 operates on fuel oil using this Process, then all required monitoring, testing, recordkeeping and reporting must be completed for that combustion turbine as specified in the associated applicable requirements and compliance conditions. The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.5(c) & (e).

Process: CT5 is located at Building CTG HRSG - Start-up of the combustion turbine on pipeline quality natural gas. Start-up on pipeline quality natural gas is defined as the period that begins when the combustion turbine generator is first fired with fuel and ends when the combustion turbine generator begins operating in mode 6Q plus 60 minutes not to exceed 6 hours. Extended startups to perform combustion tuning shall not exceed 12 hours after Mode 6Q is achieved and may occur a maximum of 4 times per calendar year per combustion turbine generator.

Process: CT6 is located at Building CTG HRSG - Start-up of the combustion turbine on low sulfur fuel oil (fuel oil is defined in 40 CFR §72.2). Startup on low sulfur fuel oil is defined as the period that begins when the combustion turbine generator is first fired with fuel and ends when the combustion turbine

generator begins operating at a 1:1 fuel-to-water ratio plus 60 minutes, not to exceed 6 hours.

This Process involving operation of the combustion turbine generators on fuel oil is designated as an Alternate Operating Scenario (AOS) for operational flexibility as defined by 6 NYCRR Part 201-6.5(f). All monitoring, testing, recordkeeping and reporting requirements specified in the Permit for this AOS Process are deferred until the Process is used. If any of the three combustion turbines comprising Emission Unit U-00010 operates on fuel oil using this Process, then all required monitoring, testing, recordkeeping and reporting must be completed for that combustion turbine as specified in the associated applicable requirements and compliance conditions. The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.5(c) & (e).

Process: CT7 is located at Building CTG HRSG - Shutdown of the combustion turbine on pipeline quality natural gas. Shutdown on pipeline quality natural gas is defined as the period of time from the initial lowering of combustion turbine output below 50% of the base load with the intent to cease generation of electrical power output and concludes with the cessation of combustion turbine operation, not to exceed 120 minutes.

Process: CT8 is located at Building CTG HRSG - Shutdown of the combustion turbine on low sulfur (0.04% by weight maximum) fuel oil (as defined in 40 CFR §72.2). Shutdown on fuel oil is defined as the period of time from the initial lowering of combustion turbine output below 50% of the base load with the intent to cease generation of electrical power output and concludes with the cessation of combustion turbine operation, not to exceed 120 minutes.

This Process involving operation of the combustion turbine generators on fuel oil is designated as an Alternate Operating Scenario (AOS) for operational flexibility as defined by 6 NYCRR Part 201-6.5(f). All monitoring, testing, recordkeeping and reporting requirements specified in the Permit for this AOS Process are deferred until the Process is used. If any of the three combustion turbines comprising Emission Unit U-00010 operates on fuel oil using this Process, then all required monitoring, testing, recordkeeping and reporting must be completed for that combustion turbine as specified in the associated applicable requirements and compliance conditions. The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.5(c) & (e).

Process: CT9 is located at Building CTG HRSG - Operation of the combustion turbine during fuel switching from firing pipeline quality natural gas to low sulfur (0.04% by weight maximum) fuel oil (as defined in 40 CFR §72.2) or from fuel oil to pipeline quality natural gas. Fuel transfer is defined as the period of time from initiation of the fuel transfer process in the combustion turbine generator until the cessation of the process, not to exceed 120 minutes.

This Process involving operation of the combustion turbine generators on fuel oil is designated as an Alternate Operating Scenario (AOS) for operational flexibility as defined by 6 NYCRR Part 201-6.5(f). All monitoring, testing, recordkeeping and reporting requirements specified in the Permit for this AOS Process are deferred until the Process is used. If any of the three combustion turbines comprising Emission Unit U-00010 operates on fuel oil using this Process, then all required monitoring, testing, recordkeeping and reporting must be completed for that combustion turbine as specified in the associated applicable requirements and compliance conditions. The status of this AOS (i.e. whether the unit has operated using this Process) will be indicated in the Semi Annual Monitoring reports and the Annual Compliance Certification required by 6 NYCRR 201-6.5(c) & (e).

Process: OF3 is located at Building CTG HRSG - Continuous operation of all three (3) CTGs while utilizing GE's OpFlex® Advantage Peak Fire software ("peak mode") for each CTG. Running the CTGs in peak mode increases CTG output over base load operations. Specifically, peak mode increases CTG output by approximately 2% and increases CTG efficiency (i.e., heat rate) by approximately 0.2%. Peak mode is utilized when the CTGs are operating on natural gas at ambient temperatures of 59°F or greater and power demand warrants its use.
Each of the three (3) CTG may utilize peak mode for a maximum of 300 hours per year. No changes to the concentration or mass emission limits in the current Title V permit are necessary for the CTGs to run in peak mode.

Emission unit U00005 - Unit U-00005 is a package boiler firing only pipeline quality natural gas with a design natural gas firing rate of 63,300 standard cubic feet per minute (SCFM) and a maximum heat input capacity of 64.883 million Btu per hour (MMBtu/hr) based on a natural gas heat content of 1025 Btu per cubic foot (Btu/cf) at the higher heating value (HHV). As of July 1, 2014 the package boiler burner controls have been modified to permanently restrict the unit heat input capacity to less than or equal to 25 MMBTU/hr.

Emission unit U00005 is associated with the following emission points (EP):
00005
Process: P51 is located at Building 1 - P51 designates burning natural gas in the package boiler. There is one burner in the boiler. As of July 1, 2014 the maximum allowable heat input to the boiler will be 25 MMBTU/hr.

Emission unit U00015 - This emission unit consists of a Marley 12-cell plume abatement mechanical draft cooling tower (20 degrees F/85% RH design point) with 99.9995% efficient drift eliminators.

Emission unit U00015 is associated with the following emission points (EP):

ST006, ST007, ST008, ST009, ST010, ST011, ST012, ST013, ST014, ST015, ST016, ST017
Process: P71 is located at Building WCTOWER - A 12-cell plume abatement mechanical draft cooling tower (20 degrees F / 85% RH design point) with 99.9995% efficient drift eliminators.

Title V/Major Source Status
BETHLEHEM ENERGY CENTER is subject to Title V requirements. This determination is based on the following information:
A stationary source in a non-attainment area and in the ozone transport region shall be "major" if it emits or has the potential to emit 100 tons per year of NOx and/or 50 tons per year of VOC. Bethlehem Energy Center shall be considered a major stationary source; the facility meets or exceeds each of the aforementioned major source criteria.

Program Applicability
The following chart summarizes the applicability of BETHLEHEM ENERGY CENTER with regards to the principal air pollution
regulatory programs:

Regulatory Program	Applicability
PSD	YES
NSR (non-attainment)	YES
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES
TITLE IV	YES
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 equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212-3, 220-1.6, 220-1.7, 220-2.3, 220-2.4, 226, 227-2, 228, 229, 230, 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
4911	ELECTRIC SERVICES

4931	ELEC & OTHER SERVICES COMBINED

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
1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
2-01-001-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL (DIESEL) Turbine
2-01-002-01	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS Turbine
2-01-002-09	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS TURBINE: EXHAUST
2-02-001-02	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - DISTILLATE OIL(DIESEL) Reciprocating
3-85-882-01	COOLING TOWER MECHANICAL DRAFT

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.

Cas No.	Contaminant	PTE lbs/yr	PTE tons/yr	Actual lbs/yr	Actual tons/yr
000106-99-0	1,3-BUTADIENE	175			
000075-07-0	ACETALDEHYDE	1553			
000107-02-8	ACROLEIN	248			
007664-41-7	AMMONIA	362100			
007440-38-2	ARSENIC	160			
000071-43-2	BENZENE	906			
007440-41-7	BERYLLIUM	5			
007440-43-9	CADMIUM	70			
000124-38-9	CARBON DIOXIDE		3639330		
000630-08-0	CARBON MONOXIDE	453501			
007440-47-3	CHROMIUM	161			
007440-48-4	COBALT	0.04			
000100-41-4	ETHYLBENZENE	1241			
000050-00-0	FORMALDEHYDE	19696			
000110-54-3	HEXANE	78			
007783-06-4	HYDROGEN SULFIDE	244400			
007439-92-1	LEAD	220			
007439-96-5	MANGANESE	11491			
007439-97-6	MERCURY	18			
000091-20-3	NAPHTHALENE	394			
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS	68			
0NY210-00-0	OXIDES OF NITROGEN	916662			
000000-23-4	PAH, TOTAL	470			
0NY075-00-0	PARTICULATES	925705			
0NY075-00-5	PM-10	925705			
000075-56-9	PROPANE, 1,2-EPOXY-	1125			
007782-49-2	SELENIUM	364			
007446-09-5	SULFUR DIOXIDE	629703			
007664-93-9	SULFURIC ACID	244400			
000108-88-3	TOLUENE	5043			
0NY100-00-0	TOTAL HAP	45968			
0NY998-00-0	VOC	114094			
001330-20-7	XYLENE, M, O & P MIXT.	2482			

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)
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 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

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 Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY	ECL 19-0301	130	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21	36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50	Prevention of Significant Deterioration
FACILITY	40CFR 60-A.11(d)	58	General provisions - compliance with standards and maintenance requirements
FACILITY	40CFR 60-A.12	59	General provisions - Circumvention
FACILITY	40CFR 60-A.13(d)	60	General provisions - Monitoring requirements
FACILITY	40CFR 60-A.14	61	General provisions - Modification
FACILITY	40CFR 60-A.15	62	General provisions - Reconstruction
FACILITY	40CFR 60-A.4	51	General provisions - Address
FACILITY	40CFR 60-A.7(b)	52	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(d)	53	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(f)	54	Notification and Recordkeeping
FACILITY	40CFR 60-A.8(d)	55	Performance Tests
FACILITY	40CFR 60-A.8(e)	56	Performance Tests
FACILITY	40CFR 60-A.8(f)	57	Performance Tests
U-00010	40CFR 60-D.46(b)	84	Test Methods and Procedures
U-00005/-/P51	40CFR 60-Dc.48c(g)	72	Reporting and

			Recordkeeping Requirements.
U-00010	40CFR 60-GG.332(a)(1)	85	Standard for Oxides of nitrogen for Gas Turbines > 100 mmBTU/hr
U-00010	40CFR 60-GG.333(b)	86, 87	Standard for Sulfur Dioxide
U-00010	40CFR 60-GG.334(b)	88	Monitoring of Operations: CEMS
FACILITY	40CFR 60-GG.334(c)	63	CEMS for turbines without water or steam injection
U-00010	40CFR 60-GG.334(h)(3)	89	Allowance not to monitor sulfur or nitrogen for natural gas
U-00010	40CFR 60-GG.334(j)	90	Reporting Requirements
FACILITY	40CFR 63-ZZZZ	64, 65	Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	19	Chemical accident prevention provisions
U-00010	40CFR 72	91	Permits regulation
FACILITY	40CFR 75-B.10(a)	66	Continuous emission monitoring - general operating requirements
FACILITY	40CFR 75-B.10(d)	67	Continuous emission monitoring - general operating requirements
FACILITY	40CFR 82-F	20	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	40CFR 97	68	Federal Cross-State Air Pollution Regulation (CSAPR)
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	131	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 air
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	21, 69, 70	Title V Permits and the Associated Permit Conditions
U-00010	6NYCRR 201-6	73	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4	22, 23, 24	Standard Permit Requirements

U-00010	6NYCRR 201-6.4	74	Standard Permit Requirements
U-00010/-/CT1	6NYCRR 201-6.4	92, 93, 94, 95, 96	Standard Permit Requirements
U-00010/-/CT2	6NYCRR 201-6.4	97, 98, 99, 100, 101, 102, 103	Standard Permit Requirements
U-00010/-/CT3	6NYCRR 201-6.4	104, 105, 106, 107, 108	Standard Permit Requirements
U-00010/-/CT4	6NYCRR 201-6.4	109, 110, 111, 112, 113, 114, 115	Standard Permit Requirements
U-00010/-/CT8	6NYCRR 201-6.4	126	Standard Permit Requirements
U-00010/-/CT9	6NYCRR 201-6.4	128	Standard Permit Requirements
FACILITY	6NYCRR 201-6.4(a)	25	General Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	15	General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2	General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	16	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	3	Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.4(c)(2)	4	Records of Monitoring, Sampling and Measurement
FACILITY	6NYCRR 201-6.4(c)(3)(ii	5	Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(d)(4)	26	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	17	Off Permit Changes
U-00010	6NYCRR 201-6.5(a)	75, 76, 77	State Enforceable Requirements
U-00010/-/CT5	6NYCRR 201-6.5(a)	116, 117, 118, 119	State Enforceable Requirements
U-00010/-/CT6	6NYCRR 201-6.5(a)	120, 121, 122, 123	State Enforceable Requirements
U-00010/-/CT7	6NYCRR 201-6.5(a)	124, 125	State Enforceable Requirements
U-00010/-/CT8	6NYCRR 201-6.5(a)	127	State Enforceable Requirements
U-00010/-/CT9	6NYCRR 201-6.5(a)	129	State Enforceable Requirements
FACILITY	6NYCRR 201-7.1	27	Emission Capping in Facility Permits
FACILITY	6NYCRR 202-1.1	18, 28	Required emissions tests.
FACILITY	6NYCRR 202-1.3	29, 30, 31	Acceptable procedures.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	32	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.2	132	General Prohibitions - visible emissions

			limited.
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 225-1.2(h)	33	Sulfur-in-Fuel Limitations
FACILITY	6NYCRR 225-1.6(d)	34	Record Availability
FACILITY	6NYCRR 227-1.3(a)	35	Smoke Emission Limitations.
U-00005/-/P51	6NYCRR 227-2.4(d)	71	Small boilers, small combustion turbines, and small stationary internal combustion engines.
U-00010	6NYCRR 231-11.2(c)	83	Reasonable Possibility requirements for insignificant mods - greater than 50% with excluded emissions
FACILITY	6NYCRR 242-1.5	133, 134, 135	CO2 Budget Trading Program - Standard requirements
U-00010	6NYCRR 242-8	136	CO2 Budget Trading Program - Monitoring and reporting

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 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) (4)
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 201-6.4 (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 211.2
This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

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, BETHLEHEM ENERGY CENTER has been determined to be subject to the following regulations:
40 CFR 52.21
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 60.11 (d)
This regulation specifies the type of opacity monitoring requirements in relation to compliance with the standards and maintenance requirements.

40 CFR 60.12
This regulation prohibits an owner or operator from concealing emissions in violation of applicable standards by any means.

40 CFR 60.13 (d)
This regulation contains the requirements for daily drift testing for continuous monitoring systems required by 40 CFR Part 60.

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 60.332 (a) (1)
This regulation provides the equation to be used to determine the allowable emissions of oxides of nitrogen (NOx) from a gas turbine with a heat input greater than 100 million BTU per hour.

40 CFR 60.333 (b)
This regulation limits the amount of sulfur in the fuel burned in a gas turbine to 0.8% by weight

40 CFR 60.334 (b)
This regulation allows the owner/operator of a gas turbine to use a CEMS to monitor NOx emissions instead of monitoring fuel and water/steam usage.

40 CFR 60.334 (c)
This regulation allows the owner or operator of a gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NOX emissions, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of 40 CFR 60.334.

40 CFR 60.334 (h) (3)
This regulation allows the owner or operator of a gas turbine to not monitor the fuel for sulfur or nitrogen content if the fuel meets the 40 CFR 60.331(u) definition of natural gas.

40 CFR 60.334 (j)
This regulation sets forth the reporting requirements for affected units that continuously monitor parameters or emissions or those that periodically determine the sulfur and/or nitrogen content of the fuel burned in a gas turbine.

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 60.46 (b)
The owner or operator shall determine compliance with the PM, SO2, and NOX standards in §§60.42, 60.43, and 60.44.

40 CFR 60.48c (g)
The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each day.

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.

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 (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 60.8 (d)
This regulation contains the requirements for advance notification of Performance (stack) testing.

40 CFR 60.8 (e)
This regulation requires the facility to provide appropriate sampling ports, safe platforms and utilities as necessary for Performance (stack) testing.

40 CFR 60.8 (f)
This regulation requires that Performance (stack) tests consist of three runs unless otherwise specified. The rule also designates the allowable averaging methods for the analysis of the results.

40 CFR 75.10 (a)
This section specifies the primary measurement requirements for opacity, and all SO2, NOx, and CO2 emissions form the facility. It details how often measurements are to be made and the general type of systems to be used.

40 CFR 75.10 (d)
This section specifies the operating requirements of the monitoring systems. It requires the facility to ensure that all monitoring systems in operation and functioning as specified, at all times fuel is being burned ,except as provided in § 75.11(e) and during other specified periods.

40 CFR Part 63, Subpart ZZZZ
This regulation defines performance standards for stationary reciprocating internal combustion engines

40 CFR Part 72
In order to reduce acid rain in the U.S. and Canada, Title IV of the Clean Air Act Amendments of 1990 requires the establishment of a program to reduce emissions of SO2 and NOx (sulfer dioxide and oxides of nitrogen). Fossil fuel burning electric utility companies are a major source of these contaminants in the US. These sources where regulated in a phased approach. Phase I, which began in 1995, requires 110 of the higher-emitting utility plants in the eastern and Midwest states to meet intermediate SO2 emission limitations. Phase II, which began in 2000, tightens the

emission limitations and expands the coverage to most fossil fuel burning utilities. The utilities are given "allowances" which is a limited authorization to emit one ton of SO2. The utilities are required to limit SO2 emissions to the number of allowances they hold. Some can benefit however by reducing their emissions and selling their excess allowances. Part 72 contains the means of implementing this portion of Title IV of the Clean Air Act.

40 CFR Part 97

Cross-State Air Pollution Rule (CSAPR), requires states to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states.

6 NYCRR 201-6.4

This section identifies all standard requirements for Title V permits.

6 NYCRR 201-6.4 (a)

This section identifies general condition requirements for Title V permits.

6 NYCRR 201-6.5 (a)

This section identifies enforceable requirements for State Facility permits.

6 NYCRR 201-7.1

This section of Part 201-7 specifies the criteria that need to be met in order to restrict emissions to avoid Title V or other applicable requirements using federally enforceable permit conditions permit.

6 NYCRR 202-1.3

This regulation requires that any emission testing, sampling and analytical determination used to determine compliance must use methods acceptable to the department. Acceptable test methods may include but are not limited to the reference methods found in 40 CFR Part 60 appendix A and Part 61, appendix B. Alternate methods may be also be used provided they are determined to be acceptable by the department. Finally, unless otherwise specified, all emission test reports must be submitted within 60 days after completion of testing.

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 225-1.2 (h)
Sulfur-in-fuel limitation for the firing of distillate oil on or after July 1, 2016.

6 NYCRR 225-1.6 (d)
This citation requires subject facilities make their records available to the Department for inspection.

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 (d)
This section includes NOx RACT requirements for small boilers, small combustion turbines, and small stationary internal combustion engines.

6 NYCRR 231-11.2 (c)
This citation lists the record keeping requirements for insignificant modifications that are greater than 50% of the threshold including excluded emissions as defined in 231-4.1(b)(40)(i)(c) of this Part.

6 NYCRR 242-1.5
His regulation requires that the facility hold enough carbon dioxide allowances in their carbon dioxide budget at least equal to the amount of carbon dioxide emitted from the facility each year.

6 NYCRR Subpart 242-8
Citation 6NYCRR Part 242-8.5 requires that the record keeping and reporting requirements of 40 CFR Part 75.73 and 6NYCRR Part 242-2.1(e) be followed, that a CO2 monitoring plan(s) be submitted,that the CO2 emission monitor(s) be certified, and that CO2 emissions be reported quarterly in an electronic format.

Compliance Certification
Summary of monitoring activities at BETHLEHEM ENERGY CENTER:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	36	monitoring of process or control device parameters as surrogate
FACILITY	37	intermittent emission testing
FACILITY	38	intermittent emission testing
FACILITY	39	intermittent emission testing
FACILITY	40	intermittent emission testing
FACILITY	41	intermittent emission testing
FACILITY	42	intermittent emission testing
FACILITY	43	intermittent emission testing
FACILITY	44	intermittent emission testing
FACILITY	45	intermittent emission testing
FACILITY	46	intermittent emission testing
FACILITY	47	intermittent emission testing
FACILITY	48	intermittent emission testing
FACILITY	49	intermittent emission testing
FACILITY	50	intermittent emission testing
U-00010	84	intermittent emission testing
U-00005/-/P51	72	record keeping/maintenance procedures
U-00010	85	continuous emission monitoring (cem)
U-00010	86	record keeping/maintenance procedures
U-00010	87	record keeping/maintenance procedures
FACILITY	63	record keeping/maintenance procedures
U-00010	89	record keeping/maintenance procedures
U-00010	90	record keeping/maintenance procedures
FACILITY	66	record keeping/maintenance procedures
FACILITY	67	record keeping/maintenance procedures
U-00010	73	record keeping/maintenance procedures
FACILITY	22	continuous emission monitoring (cem)
FACILITY	23	continuous emission monitoring (cem)
FACILITY	24	work practice involving specific operations
U-00010	74	continuous emission monitoring (cem)
U-00010/-/CT1	92	intermittent emission testing
U-00010/-/CT1	93	intermittent emission testing
U-00010/-/CT1	94	intermittent emission testing
U-00010/-/CT1	95	continuous emission monitoring (cem)
U-00010/-/CT1	96	continuous emission monitoring (cem)
U-00010/-/CT2	97	intermittent emission testing
U-00010/-/CT2	98	intermittent emission testing
U-00010/-/CT2	99	intermittent emission testing
U-00010/-/CT2	100	continuous emission monitoring (cem)
U-00010/-/CT2	101	continuous emission monitoring (cem)
U-00010/-/CT2	102	continuous emission monitoring (cem)
U-00010/-/CT2	103	continuous emission monitoring (cem)
U-00010/-/CT3	104	intermittent emission testing
U-00010/-/CT3	105	intermittent emission testing
U-00010/-/CT3	106	intermittent emission testing
U-00010/-/CT3	107	continuous emission monitoring (cem)
U-00010/-/CT3	108	continuous emission monitoring (cem)
U-00010/-/CT4	109	continuous emission monitoring (cem)
U-00010/-/CT4	110	intermittent emission testing
U-00010/-/CT4	111	intermittent emission testing

U-00010/-/CT4	112	intermittent emission testing
U-00010/-/CT4	113	continuous emission monitoring (cem)
U-00010/-/CT4	114	continuous emission monitoring (cem)
U-00010/-/CT4	115	continuous emission monitoring (cem)
U-00010/-/CT8	126	continuous emission monitoring (cem)
U-00010/-/CT9	128	continuous emission monitoring (cem)
FACILITY	25	monitoring of process or control device parameters as surrogate
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
U-00010	75	record keeping/maintenance procedures
U-00010	76	record keeping/maintenance procedures
U-00010	77	record keeping/maintenance procedures
U-00010/-/CT5	116	continuous emission monitoring (cem)
U-00010/-/CT5	117	continuous emission monitoring (cem)
U-00010/-/CT5	118	continuous emission monitoring (cem)
U-00010/-/CT5	119	continuous emission monitoring (cem)
U-00010/-/CT6	120	continuous emission monitoring (cem)
U-00010/-/CT6	121	continuous emission monitoring (cem)
U-00010/-/CT6	122	continuous emission monitoring (cem)
U-00010/-/CT6	123	continuous emission monitoring (cem)
U-00010/-/CT7	124	continuous emission monitoring (cem)
U-00010/-/CT7	125	continuous emission monitoring (cem)
U-00010/-/CT8	127	continuous emission monitoring (cem)
U-00010/-/CT9	129	continuous emission monitoring (cem)
U-00010	78	continuous emission monitoring (cem)
U-00010	79	continuous emission monitoring (cem)
U-00010	80	continuous emission monitoring (cem)
U-00010	81	monitoring of process or control device parameters as surrogate
U-00010	82	continuous emission monitoring (cem)
FACILITY	28	record keeping/maintenance procedures
FACILITY	7	record keeping/maintenance procedures
FACILITY	33	work practice involving specific operations
FACILITY	35	monitoring of process or control device parameters as surrogate
U-00005/-/P51	71	record keeping/maintenance procedures
U-00010	83	record keeping/maintenance procedures
FACILITY	134	record keeping/maintenance procedures
FACILITY	135	record keeping/maintenance procedures
U-00010	136	record keeping/maintenance procedures

Basis for Monitoring
A combined cycle power plant, consisting of three combustion generating turbines burning pipeline quality natural gas and low sulfur distillate oil with supplementary-fired HRSGs, a steam turbine generator, a pipeline quality natural gas-fired package boiler, and exempt activities. The plant has a nominal generating capacity of 750 MW.

The facility is subject PSD regulations because it was located in an area designated as a nonattainment area when the application for the original project was determined completed. The contaminants of concern are PM-10 and Particulates for PSD. There are specific quantitative and concentration requirements within the permit pertaining to operational loading to limit these pollutants. The emission testing requirements in the renewal have been refined due to analysis of past operating history. The current citations reflect actual parameters of interest for regulatory oversight.

The facility limits its PSD requirements by 'capping' of for the following pollutants: Carbon Monoxide, Oxides of Nitrogen, Sulfuric Acid, Sulfur Dioxide and Volatile Organic Compounds.

The facility is subject to NSPS regulatory Standards of Performance for Stationary Gas Turbines. Specifically, it has stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour.

Additional requirements limit emissions for start-up and shut-down were required by EPA for Ammonia, Carbon Monoxide, Oxides of Nitrogen, Sulfuric Acid and Volatile Organic Compounds. These limits are addressed under 6 NYCRR 201-6.4 and 201-06.5. The limits are to further reduce the actual emissions from the facility.