



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 3-3356-00136/00010
05/28/2019

Facility Identification Data

Name: CPV VALLEY ENERGY CENTER
Address: 3330 ROUTE 6
MIDDLETOWN, NY 10940

Owner/Firm

Name: CPV VALLEY LLC
Address: 8403 Colesville Rd Ste 915
Silver Spring, MD 20910, 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

CPV Valley, LLC owns and operates the CPV Valley Energy Center, a 680 megawatt (MW) natural gas-fired electric generating facility. The CPV Valley Energy Center will use ultra-low sulfur distillate oil for back-up for reliability purposes. The CPV facility will use "combined cycle" generation technology and will be comprised of two combined-cycle units, each consisting of a combustion turbine generator (CTG), a Heat Recovery Steam Generator (HRSG) with supplemental duct firing, and a steam turbine generator (STG). Auxiliary equipment includes a low nitrogen oxide (NOx) natural gas-fired auxiliary boiler, needed



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to keep the HRSGs warm during periods of turbine shutdown and to provide sealing steam during startups. The stacks for the facility are 275 feet tall. The project is located on an approximately 122-acre site in Wawayanda, Orange County, New York. The project activities are located on an approximately 21-acre area that is bounded to the east by State Route 17M/6; to the north by State Route 6 and to the south by Interstate 84.

Attainment Status

CPV VALLEY ENERGY CENTER is located in the town of WAWAYANDA in the county of ORANGE. 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*	MODERATE 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 CPV Valley Energy Center consists of two dual fuel-fired Siemens F-class combustion turbine generators (CTGs), with a nominal heat input of 2,234 mmBtu/hr, each when operating on natural gas at base load, two 500 mmBtu/hr supplementary natural gas-fired duct burners, two heat recovery steam generators (HRSGs) and a single steam turbine generator (STG). Supporting ancillary equipment includes a 48.1 mmBtu/hr natural gas fired auxiliary boiler, a 10.08 mmBtu/hr ULSD emergency generator, one dew point heater with two 4.48 mmBtu/hr fuel gas burners and a 1.96 mmBtu/hr ULSD fire water pump engine. The CTGs are fueled by natural gas. Ultra-low sulfur diesel may be used as a backup fuel for up to 720 hours per year per turbine. The duct burners will fire natural gas exclusively. The CTGs utilize dry low-NOx (DLN) combustors for gas firing and water injection for control of nitrogen oxides (NOx) when firing ultra-low sulfur diesel. Selective Catalytic Reduction (SCRs) systems are used to further control NOx emissions. Oxidation catalysts and efficient combustion controls will be used to control emissions of carbon monoxide (CO) as well as volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). Emissions of SO2 and PM/PM-10 are minimized through the use of pipeline natural gas and ULSD as backup, as well as efficient combustion controls. Upon leaving the SCRs, turbine gases are directed to individual stacks at 275 feet above grade with a flue diameter of 19 feet. In addition, CTGs inlet air will be cooled using an evaporative cooler when ambient temperatures are high, to improve CTGs efficiency.

The facility has installed continuous emissions monitors (CEMs) on the CTGs for the following pollutants: NOx, CO, NH3, and CO2. The facility maintains these monitors in accordance with manufacturers specifications.



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The auxiliary boiler employs low-NOx burners (LNB) and flue gas recirculation (FGR) to control emissions of NOx. The auxiliary boiler will operate as needed for any start up condition to keep the HRSG warm during periods of turbine shutdown and to provide sealing steam to the steam turbine in the case of warm and hot startups. Total boiler hours for the facility will be limited to 2,000 hours per year.

The dew point fuel gas heater employs two forced draft burners to reduce NOx emissions. The unit will heat the natural gas to optimum firing temperature. The dew point heaters is proposed to operate up to 8,760 hours per year.

The emergency diesel fire pump will provide on-site fire fighting capability independent of the utility grid. The emergency diesel generator will be operated only for testing and to maintain operational readiness or if needed for emergency operation. Each emergency engine will be allowed to operate for up to 500 hours per year.

A 1.3 megawatt or similar emergency mobile back up may be used only for testing and to maintain operational readiness or if needed for emergency operation.

The five space heaters are used inside generation buildings for temperature regulation.

The 930,900 gallon fuel oil storage tank, 600 gallon emergency diesel generator storage tank, and 500 gallon emergency diesel fire pump storage tanks are maintained at the facility.

Permit Structure and Description of Operations

The Title V permit for CPV VALLEY 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.

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

Emission unit U00002 - One Siemens SGT6-5000 F-Class combustion turbine which has a nominal rating of 1,998 mmBtu/hr at 51 °F (2234 mmBtu/hr at -5 °F) on natural gas and (2,145 mmBtu/hr at -5 °F) on fuel oil (<0.0015% sulfur). The turbine is equipped with dry low-NOx combustors, steam injection, SCR and oxidation catalyst emission controls. This emission unit also contains a natural gas-fired duct burner rated at a maximum capacity of 500 mmBtu/hr.



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Emission unit U00002 is associated with the following emission points (EP):
EP002

Process: P01 Process P01 represents natural gas firing in the Siemens SGT6-5000 Class-F combustion turbine. Dry low-NOx combustion technology, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Process: P02 Process P02 represents combined natural gas firing in the Siemens SGT6-5000 Class-F combustion turbine and natural gas firing with the duct burner. Dry low-NOx combustion technology, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Process: P03 Process P03 represents fuel oil firing in the Siemens SGT6-5000 Class-F combustion technology. Dry low-NOx combustion technology, steam or water injection, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Emission unit U00003 - One auxiliary boiler with a nominal rating of 48.1 mmBtu/hr that will fire natural gas exclusively. The boiler hours will be limited to 2,000 hours per year. The boiler will operate primarily to assist with startups and shutdowns of the turbine.

Emission unit U00003 is associated with the following emission points (EP):
EP003

Process: P3B Process P3B represents natural gas firing in the auxiliary boiler.

Emission unit U00004 - Emergency Diesel Generator operating less than 500 hours per year.

Emission unit U00004 is associated with the following emission points (EP):
EP004

Process: P04 Process P04 represents the emergency generator firing on diesel fuel.

Emission unit U00005 - Emergency Fire Pump Diesel Engine.

Emission unit U00005 is associated with the following emission points (EP):
EP005

Process: P05 Process P05 represents one fire pump engine operating on diesel fuel.

Emission unit U00006 - One Dew Point Heater with Two Fuel Gas Burners.

Emission unit U00006 is associated with the following emission points (EP):
EP006

Process: P06 Process P06 represents one 9.0 mmBtu/hr dew point heater with two fuel gas burners

Emission unit U00001 - One Siemens SGT6-5000 F-Class combustion turbine which has a nominal rating of 1,998 mmBtu/hr at 51 °F (2,234 mmBtu/hr at -5 °F) on natural gas and (2,145 mmBtu/hr at -5 °F)



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on fuel oil (<0.0015% sulfur). The turbine is equipped with dry low-NOx combustors, steam injection, SCR and oxidation catalyst emission controls. This emission unit also contains a natural gas-fired duct burner rated at a nominal capacity of 500 mmBtu/hr.

Emission unit U00001 is associated with the following emission points (EP):
EP001

Process: P1A Process P1A represents natural gas firing in the Siemens SGT6-5000 Class-F combustion turbine. Dry low-NOx combustion technology, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Process: P2A Process P2A represents combined natural gas firing in the Siemens SGT6-5000 Class-F combustion turbine and natural gas firing with in the duct burner. Dry low-NOx combustion technology, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Process: P3A Process 3A represents fuel oil firing in the Class-F combustion turbine. Dry low-NOx combustion technology, steam or water injection, selective catalytic reduction (SCR), and oxidation catalyst will be used to minimize emissions of NOx, CO, and VOC.

Title V/Major Source Status

CPV VALLEY ENERGY CENTER is subject to Title V requirements. This determination is based on the following information:

CPV Valley Energy Center is a major facility and is subject to Title V Requirements. This determination is based on the following information:

This facility has the PTE values above major source thresholds for the following pollutants: NOx, VOC, and CO.

The facility PTE values for the pollutants listed above are as follows:

NOx: 183.2 tpy
VOC: 63.5 tpy
CO: 341.9 tpy

Program Applicability

The following chart summarizes the applicability of CPV VALLEY 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



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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



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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

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

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



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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 of 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
007664-41-7	AMMONIA	209582			
000124-38-9	CARBON DIOXIDE	4350405911			
0NY750-00-0	CARBON DIOXIDE EQUIVALENTS	4356034011			
000630-08-0	CARBON MONOXIDE	683998			
007439-92-1	LEAD	40			
0NY210-00-0	OXIDES OF NITROGEN	366386			
0NY075-00-0	PARTICULATES	190000			
0NY075-02-5	PM 2.5	190000			
0NY075-00-5	PM-10	190000			
007446-09-5	SULFUR DIOXIDE	82764			
007664-93-9	SULFURIC ACID	25166			
0NY100-00-0	TOTAL HAP	27880			
0NY998-00-0	VOC	126906			

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



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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



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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 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

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

Item 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)



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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



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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
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FACILITY	ECL 19-0301	84	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 60-A.4	72	General provisions - Address
FACILITY	40CFR 60-IIII	73	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
FACILITY	40CFR 60-KKKK	74	Stationary Combustion Turbine NSPS
FACILITY	40CFR 60-KKKK.4375	75	Stationary Combustion Turbine NSPS - report requirement for excess emissions and monitor downtime
FACILITY	40CFR 60-KKKK.4395	76	Stationary Combustion Turbine NSPS - report submittal requirement
FACILITY	40CFR 63-ZZZZ	77	Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	19	Chemical accident prevention provisions
FACILITY	40CFR 72	78	Permits regulation
FACILITY	40CFR 82-F	20	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	40CFR 97-AAAAA.406	79	Transport Rule (TR) NOx Annual Trading Program Standard Requirements
FACILITY	40CFR 97-CCCCC.606	80	Transport Rule (TR) SO2 Group 1 Trading Program Standard Requirements
FACILITY	40CFR 97-EEEEEE	81	CSAPR NOx Ozone Season
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10, 21	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	85	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	12	Prohibition of reintroduction of



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FACILITY	6NYCRR 201-3.2(a)	13	collected contaminants to the air
FACILITY	6NYCRR 201-3.3(a)	14	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-6	22, 23, 24, 25, 82, 83	Trivial Activities - proof of eligibility Title V Permits and the Associated Permit 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
FACILITY	6NYCRR 201-7	27	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1.1	18	Required emissions tests.
FACILITY	6NYCRR 202-2.1	7	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.2	29	General Prohibitions - visible emissions limited.
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
FACILITY	6NYCRR 225-1.2(h)	30	Sulfur-in-Fuel Limitations
FACILITY	6NYCRR 227-1.3(a)	31	Smoke Emission Limitations.
FACILITY	6NYCRR 227-2.4(d)	32	Small boilers, small combustion turbines, and small stationary internal combustion engines.
FACILITY	6NYCRR 231-11.1	71	Permit requirements for new major facilities, NSR major mods, and netting
FACILITY	6NYCRR 231-5.3	33	Permit content and terms of issuance
FACILITY	6NYCRR 231-5.4	34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45	Lowest achievable emission rate (LAER)
FACILITY	6NYCRR 231-5.5	46, 47	Emission offset requirements



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FACILITY	6NYCRR 231-7.5	48	Permit content and terms of issuance
FACILITY	6NYCRR 231-7.6	49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70	Best available control technology (BACT)
FACILITY	6NYCRR 242-1.5	86, 87, 88	CO2 Budget Trading Program - Standard requirements
FACILITY	6NYCRR 242-4	89	CO2 Budget Trading Program - Compliance certification
FACILITY	6NYCRR 242-8.5	90	CO2 Budget Trading Program - Recordkeeping and reporting
FACILITY	6NYCRR 251.3(a)	91	CO2 Emission Limit
U-00001/EP001/P1A/CT001	6NYCRR 251.3(a)	93	CO2 Emission Limit
U-00002/EP002/P01/CT002	6NYCRR 251.3(a)	94	CO2 Emission Limit
FACILITY	6NYCRR 251.6(d)	92	Vendor Certified Fuel Receipts

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



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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



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

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or



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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, CPV VALLEY ENERGY CENTER has been determined to be subject to the following regulations:

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 60.4375

This citation states the reporting requirements of Subpart KKKK.

40 CFR 60.4395

This section provides the report submittal requirements of this regulation.

40 CFR 97.406

This condition provides the general requirements for implementing EPA's Transport Rule (TR) 40 CFR Part 97, Subpart AAAAA; intended to reduce the interstate transport of fine particulate matter and ozone. This particular condition requires facilities to measure and report their emissions of Nitrogen Oxide (NOx) and to hold TR annual NOx allowances sufficient to cover these emissions. Commonly referred to as a budget trading program, each State has an established 'budget' of emissions that are distributed or sold to facilities, which, in turn, can only emit as much as they hold in allowances.

40 CFR 97.606

This condition provides the general requirements for implementing EPA's Transport Rule (TR) 40 CFR Part 97, Subpart CCCCC; intended to reduce the interstate transport of fine particulate matter and ozone. This particular condition requires facilities to measure and report their emissions of sulfur dioxide (SO2) annually and to hold TR annual SO2 allowances sufficient to cover these emissions. Commonly referred to as a budget trading program, each State has an established 'budget' of emissions that are distributed or sold to facilities, which, in turn, can only emit as much as they hold in allowances.

40 CFR Part 60, Subpart IIII

This regulation defines performance standards for compression ignition stationary



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reciprocating internal combustion engines.

40 CFR Part 60, Subpart KKKK

This regulation defines performance standards for stationary combustion turbines.

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 NO_x (sulfur dioxide and oxides of nitrogen). Fossil fuel burning electric utility companies are a major source of these contaminants in the US. These sources were 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, Subpart EEEEE

40 CFR Part 97 Subpart EEEEE the NO_x Ozone Season Cross State Air Pollution Rule (CSAPR) is a regional (22 state) cap and trade program designed to reduce NO_x emissions during the ozone season (May - September) for large fossil fuel fired electric generating units that have a nameplate capacity of greater than 25 megawatts electrical and produce electricity for sale.

6 NYCRR 225-1.2 (h)

Sulfur-in-fuel limitation for the firing of distillate oil on or after July 1, 2016.

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 NO_x RACT requirements for small boilers, small combustion turbines, and small



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stationary internal combustion engines.

6 NYCRR 231-11.1

This section contains the permit requirements for new major facilities, NSR major modifications, and netting for this Part.

6 NYCRR 231-5.3

This section states what an applicant's permit must and will contain for conditions.

6 NYCRR 231-5.4

This section outlines what LAER is and how it is determined.

6 NYCRR 231-5.5

This section states what the emission offset requirements are for a facility subject to this Subpart.

6 NYCRR 231-7.5

This section states what an applicant's permit must and will contain for conditions.

6 NYCRR 231-7.6

This section outlines what BACT is and how it is determined.

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 242-8.5

This regulation requires the CO₂ authorized account representative to comply with all



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applicable recordkeeping and reporting requirements in section 242-8.5, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the certification requirements of section 242-2.1(e) of this Part.

6 NYCRR 251.3 (a)

This subdivision contains the emission limit requirements for CO2 from boilers that are permitted to fire greater than 70 percent fossil fuel, combined cycle combustion turbines, or stationary internal combustion engines that fire only gaseous fuel.

6 NYCRR 251.6 (d)

This subdivision sets the requirements for the maintenance of Vendor certified fuel receipts.

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is

6 NYCRR Subpart 242-4

This citation requires that an Annual Compliance Certification report be submitted by March 1st, on an annual basis, certifying compliance with the CO2 Budget Trading Program.

Compliance Certification

Summary of monitoring activities at CPV VALLEY ENERGY CENTER:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring

FACILITY	75	record keeping/maintenance procedures
FACILITY	79	record keeping/maintenance procedures
FACILITY	80	record keeping/maintenance procedures
FACILITY	81	record keeping/maintenance procedures
FACILITY	21	continuous emission monitoring (cem)
FACILITY	23	record keeping/maintenance procedures
FACILITY	24	monitoring of process or control device parameters as surrogate

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FACILITY	25	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	28	monitoring of process or control device parameters as surrogate
FACILITY	7	record keeping/maintenance procedures
FACILITY	30	work practice involving specific operations
FACILITY	31	monitoring of process or control device parameters as surrogate
FACILITY	32	record keeping/maintenance procedures
FACILITY	71	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
FACILITY	34	intermittent emission testing
FACILITY	35	monitoring of process or control device parameters as surrogate
FACILITY	36	continuous emission monitoring (cem)
FACILITY	37	continuous emission monitoring (cem)
FACILITY	38	monitoring of process or control device parameters as surrogate
FACILITY	39	monitoring of process or control device parameters as surrogate
FACILITY	40	monitoring of process or control device parameters as surrogate
FACILITY	41	monitoring of process or control device parameters as surrogate
FACILITY	42	monitoring of process or control device parameters as surrogate
FACILITY	43	intermittent emission testing
FACILITY	44	intermittent emission testing
FACILITY	45	intermittent emission testing
FACILITY	46	record keeping/maintenance procedures
FACILITY	47	record keeping/maintenance procedures
FACILITY	48	record keeping/maintenance procedures
FACILITY	49	intermittent emission testing
FACILITY	50	intermittent emission testing
FACILITY	51	monitoring of process or control device parameters as surrogate
FACILITY	52	monitoring of process or control device parameters as surrogate
FACILITY	53	monitoring of process or control device parameters as surrogate
FACILITY	54	monitoring of process or control device parameters as surrogate
FACILITY	55	monitoring of process or control device parameters as surrogate
FACILITY	56	monitoring of process or control device parameters as surrogate
FACILITY	57	monitoring of process or control device parameters as surrogate
FACILITY	58	monitoring of process or control device parameters as surrogate
FACILITY	59	monitoring of process or control device parameters as surrogate
FACILITY	60	monitoring of process or control device parameters as surrogate
FACILITY	61	intermittent emission testing
FACILITY	62	intermittent emission testing
FACILITY	63	intermittent emission testing
FACILITY	64	intermittent emission testing
FACILITY	65	intermittent emission testing
FACILITY	66	intermittent emission testing
FACILITY	67	continuous emission monitoring (cem)
FACILITY	68	continuous emission monitoring (cem)
FACILITY	69	monitoring of process or control device parameters as surrogate
FACILITY	70	monitoring of process or control device parameters



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		as surrogate
FACILITY	87	record keeping/maintenance procedures
FACILITY	88	record keeping/maintenance procedures
FACILITY	89	record keeping/maintenance procedures
FACILITY	90	record keeping/maintenance procedures
FACILITY	91	continuous emission monitoring (cem)
U-00001/EP001/P1A/CT001	93	continuous emission monitoring (cem)
U-00002/EP002/P01/CT002	94	continuous emission monitoring (cem)
FACILITY	92	record keeping/maintenance procedures

Basis for Monitoring
6 NYCRR Part 201-6

Facility Specific condition to maintain a log book with daily observations of the two combustion turbine stacks while firing fuel oil. This condition verifies compliance with Part 227-1.3 and the opacity limit of 20% based off a 6-minute average.

6 NYCRR Subpart 225-1

CPV Valley Energy Center is subject to the requirements of 6 NYCRR Subpart 225-1 because some facility equipment can burn fuel oil. This restricts the sulfur content of the fuel being used at the facility. The facility demonstrated compliance by keeping records of fuel supply certifications Fuel sulfur content records will also be used to demonstrate compliance with various BACT emission limits.

6 NYCRR Subpart 227-1

CPV Valley Energy Center is subject to the requirements of 6 NYCRR Subpart 227-1 opacity limits under subdivision 227-1.3(a). For the purposes of periodic monitoring natural gas fired equipment at this facility are required to perform an annual Method 9. For periodic monitoring oil fired equipment are required to perform a daily visible opacity observation of those sources. If a source shows visible emissions two consecutive oil operating days in a row, the facility is required to perform a Method 9 on that source.

6 NYCRR Subpart 227-2 Reasonably Available Control Technology for Oxides of Nitrogen (NOx RACT)

CPV Valley Energy Center is a major source of emissions of oxides of nitrogen and is therefore subject to the NOx RACT requirements set forth in 6 NYCRR Part 227-2. To demonstrate compliance with these requirements, CPV has developed and submitted a NOx RACT analysis to the Department.

The 0.08 lb/mmBtu NOx RACT limit set forth in Subdivision 227-2.4(c) for mid-size boilers applies to the facility's auxiliary boiler. The 0.0450lb/mmBtu limit established as LAER pursuant to 6 NYCRR Part 231 is more stringent than the NOx RACT limit. Accordingly, by demonstrating compliance with LAER for the auxiliary boiler, the facility is also demonstrating compliance with NOx RACT.

The NOx RACT requirements set forth in Subdivision 227-2.4(d) for small boilers and internal combustion engines apply to the facility's fire pump engine and dew point heater. To comply with the NOx RACT requirements, CPV will perform annual tune-ups of this equipment. Each tune-up must be kept on-site for a minimum of five years.



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The NOx RACT limits set forth in Subdivision 227-2.4(e) for combustion turbines and duct burners apply to the facility’s combustion turbines and duct burners. These limits are less stringent than the emission limits established as LAER pursuant to 6 NYCRR Part 231. Accordingly, by demonstration compliance with the LAER for the combustion turbines, the facility is also demonstrating compliance with NOx RACT.

6 NYCRR Part 231

The CPV Valley Energy Center is a new facility located within a moderate nonattainment area of the state that has the potential to emit VOC and NOx in excess of the major facility threshold specified in Table 1 of Section 231-13. Accordingly, the facility is subject to the Lowest Achievable Emission Rate (LAER) requirements of Section 231-5. Additionally, the facility is a new facility with the potential to emit CO, PM, PM-10, Sulfuric Acid, and Carbon Dioxide Equivalents in excess of the applicable major facility thresholds in Table 5 of Section 231-13. Accordingly, the facility is subject to the Best Available Control Technology (BACT) requirements of Section 231-7. Since NOx is regulated as both an attainment and a nonattainment contaminant, the requirements of both BACT and LAER are applicable. However, the requirements of BACT are satisfied by the LAER requirements and, therefore, only the LAER requirements are included in the permit. The facility’s emissions and the applicable Part 231 thresholds are shown in the table below.

Contaminant	Applicable Part 231 Threshold (tons per year)	Facility Potential to Emit (tons per year)
VOC	50	65
NOx	100	183.2
CO	100	341.9
PM	25	95
PM-10	15	95
Sulfuric Acid Mist	7	12.6
Carbon Dioxide Equivalents	75,000	2,178,017

The monitoring and reporting requirements under 6 NYCRR Part 231-5.4 and Part 231-7.6 vary for each pollutant and source. For the combustion turbine generators; NOx and CO will be measured continuously with a Continuous Emissions Monitoring System (CEMS) and reported quarterly; VOC, PM, and H2SO4 emissions will be measured through performance testing which will be conducted once during the term of the permit; and the heat rate will be tested on an annual basis. For the auxiliary boiler, NOx, VOC, CO, PM, and H2SO4 emissions was measured through performance testing to demonstrate compliance. The CO2 emission limits are measured on a 12-month rolling average basis, calculated by dividing the annual total of CO2 emissions over the relevant 12-month period by the annual total Btus (input-based limit) fired. The CO2 emissions will be reported quarterly as outlined in 6 NYCRR Part 251.6. For the emergency generators, as well as the fire pump engine, NOx, VOC, CO, H2SO4 and PM emissions was verified through vendor guarantees, with the Department reserving the right to require performance testing in the future; and CO2e emissions will be measured monthly with records maintained on site.

The number of Emission Reduction Credits (ERCs) required to offset the facility's potential emissions were established in the initial Air State Facility permit. After the issuance of that permit, the facility has reduced its potential emissions for NOx and VOC. However, the ERCs were used once the facility commenced operation and their numbers remain consistent with the facility's initial potential emissions.



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The applicant is required to track occurrences of start-up, shutdown, and fuel switches. Once the applicant has recorded 15 occurrences each of start-up, shutdown, and fuel switches, they are to develop and submit to the Department emission limits of NO_x, CO, and NH₃ for these specific periods of operation to be approved by the Department and included in the Title V permit. If 15 occurrences of start-up, shutdown, and fuel switches do not occur prior to the facility's requirement to renew the Title V permit the applicant will be required to develop and submit to the Department emissions limits based however many occurrences have been monitored.

Emission limits for VOC included in the permit incorporate all contaminants that meet the definition of VOC in 6 NYCRR 200.1(cg), including formaldehyde. Since the facility is a minor source of HAP, monitoring limits for individual contaminants that are classified as both HAPs and VOCs are not required.

Included with the permit application is an analysis of potential visibility impacts caused by emissions from the facility. This analysis concluded that no adverse impacts on visibility would be caused by the facility.

Also, included with the permit application is a discussion regarding potential impacts from emissions of HAPs from the facility. The Department has reviewed this information and determined that emissions of all HAPs will not exceed their respective short term and annual guideline concentrations and, therefore, are protective of public health and the environment.

6 NYCRR Part 242

6 NYCRR Part 242 applies to any unit that serves an electricity generator with a capacity greater than 25 megawatts on or after January 1, 2005. The CPV Valley Energy Station meets these criteria and is therefore subject to the requirements of Part 242. Part 242 requires CPV to participate in the CO₂ Budget Trading Program, and to maintain the necessary records and certifications to demonstrate compliance.

40 CFR Part 60 Subpart Dc (Standards of Performance for Industrial-Commercial -Institutional Steam Generating Units)

The auxiliary boiler at the facility is subject to this subpart. However, the SO₂ and PM emission limits in the NSPS are less stringent than the BACT emission limits. Therefore, Subpart Dc limits and requirements are not in the permit.

40 CFR Part 60 Subpart IIII (Standard of Performance for Stationary Compression Ignition Internal Combustion Engines)

The emergency generators and fire pump engine are all subject to emission limit requirements under 40 CFR Part 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). Emission limits for NO_x and VOC established for LAER are lower than those required under IIII. For CO and PM_{2.5}/PM₁₀, the BACT analysis concluded that the limits set forth in IIII is also demonstrating compliance with BACT requirements for these pollutants.

40 CFR Part 60 Subpart KKKK (Standards of Performance for Stationary Combustion Turbines)



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The combustion turbines and associated duct burners at this facility are subject to the requirements of 40 CFR Part 60 Subpart KKKK (Subpart KKKK). Subpart KKKK regulates NO_x emissions from stationary combustion turbines. However, the NO_x emission limits established under 6 NYCRR Part 231 to satisfy LAER requirements are more stringent than the limits contained in Subpart KKKK. Accordingly, by demonstrating compliance with the LAER emission limits for NO_x the facility is also demonstrating compliance with the Subpart KKKK limits. The emission limits for SO₂ in Subpart KKKK are less stringent than BACT emission limits, therefore BACT limits are in the permit. Applicable monitoring, recordkeeping, and reporting requirements under Subpart KKKK still apply. By being subject to Subpart KKKK, the turbines are exempt from requirements under 40 CFR Part 60, Subpart GG.

40 CFR Part 60 Subpart TTTT – Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units

The two combustion turbines are subject to this subpart but Subpart KKKK, BACT/LAER limits and requirements are more restrictive.

40 CFR Part 63 Subpart YYYY (National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines)

40 CFR Part 63 Subpart YYYY applies to combustion turbines located at a major source of hazardous air pollutants. CPV Valley Energy Center is not a major source of hazardous air pollutants on either a total (25 tons per year) or individual (10 tons per year) HAP basis. Accordingly, Subpart YYYY does not apply to the combustion turbines at this facility.

40 CFR Part 63 Subpart ZZZZ

Facilities that have reciprocating internal combustion engines must comply with applicable portions of 40 CFR 63 subpart ZZZZ. Since the facility is an area source of HAP (less than major combined HAP threshold of 25 tpy), according to 40 CFR 63.6590 (c) (1) the emergency generator engine and the fire pump engine are demonstrating compliance with Subpart ZZZZ by complying with Subpart IIII.

40 CFR Part 64 – Compliance Assurance Monitoring (CAM Rule)

The facility is not subject to CAM, therefore it is not included in the permit.

40 CFR Part 72

The facility is required to apply for an Acid Rain permit as stated in 40 CFR Part 72.

40 CFR Part 97



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

**Permit ID: 3-3356-00136/00010
05/28/2019**

As the owner and operator of a stationary boiler serving a generator with nameplate capacity greater than 25 megawatts, CPV Valley Energy Center is subject to various CSAPR requirements promulgated under 40 CFR Part 97. These regulations require the facility to acquire and maintain allowances for emissions of NO_x and SO₂ in accordance with the emissions trading program.