



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

Facility Identification Data

Name: ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC

Address: 17-10 STEINWAY ST

ASTORIA, NY 11105-1097

Owner/Firm

Name: ASTORIA ENERGY II LLC

Address: 17-10 STEINWAY ST

ASTORIA, NY 11105, USA

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

Name: Caitlyn P Nichols

Address: 1 HUNTERS POINT PLZ

47-40 21ST ST

LONG ISLAND CITY, NY 11101

Phone:

Division of Air Resources:

Name: DIANA MENASHA

Address: NYSDEC - REGION 2

47-40 21ST ST

LONG ISLAND CITY, NY 11101

Phone:7184827263

Air Permitting Contact:

Name: MICHAEL STOCKSTAD

Address: ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC

17-10 STEINWAY ST

ASTORIA, NY 11105-1097

Phone:7186265711

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

Application for renewal of Air Title V Facility.



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

**Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018**

Attainment Status

ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC is located in the town of QUEENS in the county of QUEENS.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	SEVERE NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

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

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

Facility Description:

Astoria Energy LLC & Astoria Energy II LLC is located at 17-10 Steinway Street in the Astoria section of Queens, New York. The facility consists of a nominal 1,150 megawatt (MW) combined-cycle natural gas fired facility with the ability to use low-sulfur distillate oil (0.033 % by weight sulfur until June 30, 2014, and 0.0015 % by weight sulfur on or after July 1, 2014) as a back-up fuel. The major components of the facility include four (4) General Electric Model No. 7241FA combustion turbines, four (4) heat recovery steam generators (HRSGs) each equipped with a duct burner for supplemental firing, two (2) steam turbines with two (2) air cooled condensers, four (4) nested exhaust flues, an auxiliary boiler, a diesel firewater pump, the switchyard and the associated equipment, air cooled condensers, and the water treatment facility with associated tankage. Distillate fuel oil is stored in two (2) existing tanks on site.

The turbines fire natural gas for up to 8,760 hours per year and distillate oil for up to 720 hours/year. The duct burners fire only natural gas. Distillate fuel oil is stored in existing tanks on site. The four (4) combustion turbines produce electricity and exhaust to the HRSGs. The steam that is produced in the HRSGs is used to drive the steam turbines to produce additional electricity. Low temperature steam that exhausts from the steam turbines flows into the air-cooled condensers. Condensate from the air-cooled condensers is returned to the HRSGs. The facility technology is referred to as combined-cycle because electric power is generated in both gas and steam turbines resulting in a highly efficient process of fuel utilization. The Standard Industrial Code for this facility is 4911- Electrical Services (establishments engaged in the generation, transmission, and/or distribution of electric energy for sale).

Astoria Energy LLC & Astoria Energy II LLC consist of one 36.5 MM Btu/hr auxiliary boiler (or equivalent) and four (4) GE Combustion Turbine units each rated at 2047 MM Btu/hr (Emission Unit U-00001) and with supplemental firing duct burners of 388 MM Btu/hr heat input each (Emission Sources 00DB1, 00DB2, 00DB3 & 00DB4). Two of the four (4) combustion turbines (Emission Sources 0T001 & 0T002) and a single Steam Turbine were constructed on 8/1/2004 and began natural gas commercial operation on natural gas on 5/21/2006 after successfully completing the required stack test on natural gas



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

**Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018**

(Phase 1 of the project). The same two combustion turbines, Turbine 1 & Turbine 2 (Emission Sources OT001 & OT002) first fired low sulfur distillate oil on December 16 and December 19, 2006; respectively. As of December 5, 2009, commissioning of low sulfur distillate oil has not yet been completed. The other two combustion turbines (Emission Sources OT003 & OT004), the single Steam Turbine, and the auxiliary boiler (Emission Source BOIL1) began construction on 10/1/2008 and began natural gas commercial operation on natural gas on 10/1/2011 after successfully completing the required stack test on natural gas (Phase 2 of the project). Each turbine is equipped with a dry low NO_x burner (Emission Controls 0DLN1, 0DLN2, 0DLN3 & 0DLN4). In order to reduce nitrogen oxides (NO_x) emissions, each turbine is equipped with SCR - selective catalytic reduction (Emission Controls 0SCR1, 0SCR2, 0SCR3 & 0SCR4) in the HRSG design. Also, in order to reduce carbon monoxide (CO) emissions and volatile organic compounds (VOC), each turbine is equipped with an oxidation catalyst (Emission Controls 00CO1, 00CO2, 00CO3 & 00CO4) in the HRSG design. Control of the ammonia feed rate will be based on the NO_x and fuel flow and in order to control the NO_x emissions when firing distillate oil, water injection (Emission Control 0WI01, 0WI02, 0WI03 & 0WI04) will be used. This configuration represents Best Available Control Technology (BACT). The proposed pollution control equipment will also result in the Lowest Achievable Emission Rate (LAER) for NO_x, CO and volatile organic compounds (VOC). The four (4) combustion turbines will fire natural gas as the primary fuel with duct firing (Process P01), without duct firing (Process P11), and distillate fuel oil which has a sulfur limit of 0.0015 % by weight without duct firing (Process P10) and with duct firing (Process P12). The turbines fire natural gas for up to 8,760 hours/year and distillate oil for up to 720 hours/year. The duct burners fire natural gas only. The emissions from the four turbines/duct burners exhaust through one common stack, identified as Emission Point 00001 with four (4) separate flues. The same stack will be used for the 36.5 MM Btu/hr auxiliary boiler (Emission Source BOIL1). Emission Unit U-00001 also consists of a 36.5 MM Btu/hr auxiliary boiler which has not been constructed yet. The boiler will only fire natural gas (Process P05) for up to 900 hours/year. The estimated annual consumption for the boiler is 88.8 MM cu ft/yr of natural gas. The emissions from the boiler will exhaust through one stack identified as Emission Point 00004 (the same stack as the four turbines). The facility has a second emission unit (U-00002) for the 300 bhp diesel fire pump (emission source 00DFP). The diesel fire pump was constructed on 1/1/2002 and began operation on 12/1/2006. The diesel fire pump operates on oil (Process P22). The diesel fire pump is expected to operate up to 500 hours/year. The emissions from the diesel fire pump exhaust through one stack identified as emission point 00005.

The potential emissions of major air pollutants from this facility will exceed the major source thresholds for all of the PSD (Prevention of Significant Deterioration - 40 CFR 52-A.21(j)) regulated pollutants. As part of the application, the applicant provided a control technology analysis for the various pollutants based on the area's attainment status and the potential emissions from the facility. The facility is located in a severe non-attainment area for ozone. Oxides of Nitrogen (NO_x) and volatile organic compounds (VOCs) are precursors to ozone formation and are treated as non-attainment pollutants, even though the area is in attainment for NO_x. Since the original Title V permit application was filed, all of metropolitan New York City area (project site) has been reclassified as attainment for carbon monoxide. As of November of 2002, the CO has been re-designated from non-attainment to attainment pollutant in the severe ozone region (New York City Metropolitan Area), and the applicability threshold for CO for a Title V has increased from 50 tpy to 100 tpy. Therefore, the facility will need to meet the more stringent lowest achievable emission rate (LAER - 6 NYCRR 231-2.7(b)) requirements for the emissions of NO_x, VOC and CO. The NO_x emissions are reduced with SCR - selective catalytic reduction in the HRSG design of the turbine. The emissions of VOC and CO are controlled through the use of an oxidation catalyst equipped in the HRSG design of the turbine. When firing distillate oil, NO_x emissions are controlled through water injections and SCR in the HRSG design of the turbine. The emissions of particulate matter (PM/PM-10) are controlled through the use of clean burning fuels (natural gas and distillate oil). The emissions of sulfur dioxide (SO₂) and sulfuric acid mist (H₂SO₄) are controlled through the use of low sulfur fuels (natural gas and low sulfur distillate oil). The emissions of ammonia are based on the NO_x emission and



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

the fuel flow and are controlled by water injection and efficient use of the SCR.

The facility operates other sources which are considered exempt from permitting in accordance with 6 NYCRR 201-3.2(c), including two (2) storage tanks for distillate oil with capacities of approximately 6.3 million gallons each, the switchyard, air cooled condensers, and the water treatment facility with associated tankage.

Permit Structure and Description of Operations

The Title V permit for ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC

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.

ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC is defined by the following emission unit(s):

Emission unit U00002 - Emission Unit U00002 represents a diesel fire suppression water pump (Emission Source 00DFP). The diesel fire suppression water pump will be used for emergencies (Process P22), less than 500 hours/year, and burns 500 ppm sulfur #2 diesel fuel. Emissions from the diesel fire pump are exhausted through a stack, which is identified as Emission Point 00005.

Data for the 6081H Base Model Fire Pump:

Engine Manufactured by John Deere Co., the fire pump driver is manufactured by Clarke, Model JW6H-UF40.

6 Cylinders

4 Cycle

Lean burn

Turbocharged

Emission Data in g/bhp-hr for CO, PM & NMHC+NOx contaminants :

RPM BHP Fuel (gal/hr) CO PM NMHC+NOx



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

1760 290 13.5 0.51 0.13 5.73

2100 300 14.0 0.32 0.12 4.65

2350 300 14.5 0.41 0.16 4.11

Emission unit U00002 is associated with the following emission points (EP):
00005

Process: P22 is located at Building TGB - Process P22 in Emission Unit U-00002 represents the 300 brake horsepower diesel fire suppression water pump firing diesel fuel oil (maximum of 500 ppm sulfur #2 diesel fuel). The diesel fire suppression water pump is expected to operate less than 500 hours/year on diesel fuel oil. The emissions from this process exhaust through a stack identified as Emission Point 00005.

Emission unit U00001 - Emission Unit U00001 represents four (4) identical GE 7421FA gas combustion turbines (Emission Sources OT001, OT002, OT003 & OT004), each rated at 2191 MM Btu/hr, including the 388 MM Btu/hr each duct burner (Emission Controls 00DB1, 00DB2, 00DB3 & 00DB4; respectively, when firing natural gas (Processes P01 & P11) at -5 deg Fahrenheit, and 2047 MM Btu/hr when firing distillate fuel oil (Processes P10 & P12) at -5 deg Fahrenheit. Each turbine is equipped with a dry low NOx burner (Emission Controls 0DLN1, 0DLN2, 0DLN3 & 0DLN4; respectively). Emission Unit U00001 also consists of one (1) Nebraska 36.5 MM Btu/hr auxiliary boiler (Emission Source BOIL1) that fires natural gas (Process 05). It is used for startups and shares the turbine stack. Also, in order to reduce carbon monoxide (CO) emissions and volatile organic compounds (VOC), each turbine is equipped with an oxidation catalyst (Emission Controls 00DB1, 00DB2, 00DB3 & 00DB4; respectively) in the HRSG design. Control of the ammonia feed rate will be based on the NOx and fuel flow in order to control the NOx emissions when firing distillate oil, water injection (Emission Controls 0WI01, 0WI02, 0WI03 & 0WI04; respectively) will be used. The emissions of VOC and CO will be controlled through the use of an oxidation catalyst (Emission Controls 00CO1, 00CO2, 00CO3 & 00CO4) equipped in the HRSG design of the turbine. The emissions of ammonia are based on the NOx emission and the fuel flow and will be controlled by water injection (Emission Controls 0WI01, 0WI02, 0WI03 & 0WI04) and efficient use of the SCR (Emission Controls 0SCR1, 0SCR2, 0SCR3 & 0SCR4). The boiler exhausts parallel to the turbine stack, but shares the turbine stack to the atmosphere (Emission Point 00004). Natural gas is the primary fuel and distillate fuel oil is the back-up fuel.

Emission Unit U-00001 has the following Emission Sources:

00DB1, 00DB2, 00DB3 & 00DB4 Duct Burners



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

0T001, 0T002, 0T003 & 0T004 Gas Combustion Turbines

Emission Unit U-00001 has the following Emission Controls:

00CO1, 00CO2, 00CO3 & 00CO4 Carbon Monoxide Oxidation Catalyst

0DLN1, 0DLN2, 0DLN3 & 0DLN4 Low NOx Combustor

0SCR1, 0SCR2, 0SCR3 & 0SCR4 Selective Catalytic Reduction

0WI01, 0WI02, 0WI03 & 0WI04 Water Injection Control

Emissions from the above emission sources/controls are exhausted through one common stack, which is identified as Emission Point 00004 with four separate flues

The NOx emissions will be reduced with SCR - selective catalytic reduction (Emission Controls 0SCR1, 0SCR2, 0SCR3 & 0SCR4) in the HRSG Heat Recovery Steam Generator) design of the turbine, each equipped with a duct burner (Emission Sources 00DB1, 00DB2, 00DB3 & 00DB4) for supplemental firing. The emissions of VOC and CO will be controlled through the use of an oxidation catalyst (Emission Controls 00CO1, 00CO2, 00CO3 & 00CO4) equipped in the HRSG design of the turbine. When firing distillate oil, NOx emissions will be controlled through water injections (Emission Controls 0WI01, 0WI02, 0WI03 & 0WI04) and SCR (Emission Controls 0SCR1, 0SCR2, 0SCR3 & 0SCR4) in the HRSG design of the turbine. The emissions of particulate matter (PM/PM-10) will be controlled through the use of clean burning fuels (natural gas and distillate oil). The emissions of sulfur dioxide (SO2) and sulfuric acid mist (H2SO4) will be controlled through the use of low sulfur fuels (natural gas and low sulfur distillate oil). The emissions of ammonia are based on the NOx emission and the fuel flow and will be controlled by water injection (Emission Controls 0WI01, 0WI02, 0WI03 & 0WI04) and efficient use of the SCR (Emission Controls 0SCR1, 0SCR2, 0SCR3 & 0SCR4).

Emission unit U00001 is associated with the following emission points (EP):
00004

Process: P01 is located at Building TGB - Process P01 in Emission Unit U-00001 represents natural gas firing in the four (4) identical combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004) with natural gas duct firing. Due to limitations in the steam cycle portion of the plant, the maximum duct burner firing cannot occur when a turbine is operating at its maximum natural gas firing rate. Therefore, duct burner firing will only occur with less than 100 % load.

All four combustion turbines are dual-fueled and all four turbines may operate at the same time. Natural gas is the primary fuel and distillate fuel oil is the back-up fuel. For this process, dry low NOx burners



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

(DLN) and selective catalytic reduction (SCR) are used to control NO_x emissions. Emissions of VOC and CO are controlled through the use of an oxidation catalyst. Each turbine is expected to operate up to 8,760 hours/year on natural gas and up to 720 hours/year on distillate oil. The maximum natural gas throughput for Process P01 may not exceed 69,868 million cubic feet per year. The emissions from this process exhaust through a common stack identified as Emission Point 00004 with four separate flues.

Process: P05 is located at Building TGB - Process P05 in Emission Unit U-00001 represents natural gas firing in the 36.5 MM Btu/hr Nebraska auxiliary boiler (Emission Source BOIL1). This boiler fires natural gas only and is expected to operate up to 900 hours/year on natural gas. For the boiler, it is estimated that 88.8 MM cubic feet/year of natural gas will be used. The boiler's emissions exhaust parallel to the four turbines stack, but shares the four turbines stack to the atmosphere (Emission Point 00004).

Process: P10 is located at Building TGB - Process P10 in Emission Unit U-00001 represents distillate fuel oil (limit of 0.033 % sulfur by weight until June 30, 2014, and 0.0015% sulfur by weight thereafter) as a back up fuel.) firing in the four (4) identical combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004).

All four (4) combustion turbines are dual-fueled and all four turbines may operate at the same time. Natural gas is the primary fuel and distillate fuel oil is the back-up fuel. For this process, selective catalytic reduction (SCR) and water injection (WI) are used to control NO_x emissions. Emissions of VOC and CO are controlled through the use of an oxidation catalyst. Each combustion turbine is expected to operate up to 8,760 hours/year on natural gas and up to 720 hours/year on distillate oil. The maximum distillate fuel oil throughput for Process P10 may not exceed 41.6 million gallons per year. The emissions from this process exhaust through a common stack identified as Emission Point 00004 with four separate flues.

The 0.033 % sulfur by weight limit in the distillate fuel oil firing in the four (4) identical combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004) will expire on June 30, 2014. Beginning July 1, 2014, the facility is required to combust distillate fuel oil with a maximum sulfur content of 0.0015 percent by weight.

Process: P11 is located at Building TGB - Process P11 in Emission Unit U-00001 represents natural gas firing in the four (4) identical combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004) without duct firing. The maximum natural gas throughput for Process P11 may not exceed 68,959 million cubic feet per year.

All four combustion turbines are dual-fueled and all four turbines may operate at the same time. Natural gas is the primary fuel and distillate fuel oil is the back-up fuel. For this process, dry low NO_x burners (DLN) and selective catalytic reduction (SCR) are used to control NO_x emissions. Emissions of VOC and CO are controlled through the use of an oxidation catalyst. Each turbine is expected to operate up to 8,760 hours/year on natural gas and up to 720 hours/year on distillate oil. The maximum natural gas throughput for Processes P01 & P11 combined may not exceed 69,868 million cubic feet per year. The emissions from this process exhaust through a common stack identified as Emission Point 00004 with four separate flues.

Process: P12 is located at Building TGB - Process P12 in Emission Unit U-00001 represents distillate fuel oil firing in the four (4) identical combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004) with natural gas duct firing. Due to limitations in the steam cycle portion of the plant, the maximum duct burner firing cannot occur when a turbine is operating at its maximum natural gas firing rate. Therefore, duct burner firing will only occur with less than 100 % load.



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

**Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018**

All four combustion turbines are dual-fueled and all four turbines may operate at the same time. Natural gas is the primary fuel and distillate fuel oil is the back-up fuel. For this process, dry low NOx burners Emissions of VOC and CO are controlled through the use of an oxidation catalyst (duct burner in the HRSG design). Each combustion turbine is expected to operate up to 8,760 hours/year on natural gas and up to 720 hours/year on distillate oil. The maximum distillate fuel oil throughput for Process P12 may not exceed 41.6 million gallons per year. The emissions from this process exhaust through a common stack identified as Emission Point 00004 with four separate flues.

The permit's emissions criteria for Process P12 would follow the emissions limit set forth for Process P10, and there would be NO INCREASE IN EMISSIONS.

Title V/Major Source Status

ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC is subject to Title V requirements. This determination is based on the following information:
The Astoria Energy LLC & Astoria Energy II LLC is a major facility because the potential emissions of carbon monoxide, nitrogen oxides and volatile organic compounds are greater than the major source thresholds (100 tons/year for carbon monoxide, and 25 tons per year for both nitrogen oxides and volatile organic compounds).

Program Applicability

The following chart summarizes the applicability of ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC with regards to the principal air pollution regulatory programs:

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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

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

SIP State Implementation Plan (40 CFR 52, Subpart HH, 6 NYCRR 200.10) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

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



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

**Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018**

distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code	Description
4911	ELECTRIC SERVICES
4939	COMBINATION UTILITY SERVICES
5171	PETROLEUM BULK STATIONS & TERMINALS
6512	NONRESIDENTIAL BUILDING OPERATORS

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
1-02-006-04	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS Cogeneration
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
2-80-002-18	DIESEL MARINE VESSELS DIESEL MARINE VESSELS - COMMERCIAL SUPPLY BOATS - AUXILIARY GENERATOR EXHAUST - HOTELLING

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 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.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

Cas No.	Contaminant	PTE lbs/yr	PTE tons/yr	Actual lbs/yr	Actual tons/yr
007429-90-5	ALUMINUM	884			
007664-41-7	AMMONIA	510000			
007440-36-0	ANTIMONY	130			
007440-38-2	ARSENIC	28.8			
007440-39-3	BARIUM	0.0884			
000071-43-2	BENZENE	1038			
000106-46-7	BENZENE, 1,4-DICHLORO-	0.024			
007440-41-7	BERYLLIUM	1952			
007440-42-8	BORON	384			
007726-95-6	BROMINE	24.8			
000106-97-8	BUTANE	42.2			
007440-43-9	CADMIUM	24.8			
007440-70-2	CALCIUM	4540			
000630-08-0	CARBON MONOXIDE	288000			
007440-47-3	CHROMIUM	278			
007440-48-4	COBALT	53.6			
007440-50-8	COPPER	7664			
000074-84-0	ETHANE	62.2			
000050-00-0	FORMALDEHYDE	9440			
000110-54-3	HEXANE	36.2			
007439-89-6	IRON	3540			
007439-92-1	LEAD	342			
007439-95-4	MAGNESIUM	1356			
007439-96-5	MANGANESE	2000			
007439-97-6	MERCURY	5.38			
007439-98-7	MOLYBDENUM	49.6			
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS	300			
0NY210-00-0	OXIDES OF NITROGEN	648000			
0NY075-00-0	PARTICULATES	582000			
000109-66-0	PENTANE	52.2			
007723-14-0	PHOSPHORUS (YELLOW)	1768			
0NY075-00-5	PM-10	582000			
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBONS	0.014			
007440-09-7	POTASSIUM K	2540			
000074-98-6	PROPANE	32.2			
007782-49-2	SELENIUM	31.2			
007440-21-3	SILICON	7660			
007440-23-5	SODIUM	8260			
007446-09-5	SULFUR DIOXIDE	292000			
007664-93-9	SULFURIC ACID	102200			
007440-31-5	TIN	478			
000108-88-3	TOLUENE	0.068			
0NY100-00-0	TOTAL HAP	17428			
007440-62-2	VANADIUM	26			
0NY998-00-0	VOC	216000			
007440-66-6	ZINC	4000			

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

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.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

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 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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

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



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

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	165	Powers and Duties of the Department with respect to air pollution control
U-00001	40CFR 52-A.21	74	Prevention of Significant Deterioration
U-00001/00004	40CFR 52-A.21	80	Prevention of Significant Deterioration
FACILITY	40CFR 52-A.21(j)	45	Best Available Control Technology
U-00001/00004	40CFR 52-A.21(j)	81, 82	Best Available Control Technology
U-00001/00004/P01	40CFR 52-A.21(j)	90, 91, 92, 93, 94, 95, 96, 97	Best Available Control Technology
U-00001/00004/P05/BOIL1	40CFR 52-A.21(j)	106, 107, 108, 109, 110	Best Available Control Technology
U-00001/00004/P10	40CFR 52-A.21(j)	118, 119, 120, 121, 122, 123, 124, 125, 126, 127	Best Available Control Technology
U-00001/00004/P11	40CFR 52-A.21(j)	134, 135, 136, 137, 138, 139, 140, 141	Best Available Control Technology



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

U-00001/00004/P12	40CFR 52-A.21(j)	149, 150, 151, 152, 153, 154, 155, 156, 157, 158	Best Available Control Technology
U- 00002/00005/P22/00DFP FACILITY	40CFR 52-A.21(j) 40CFR 60-A.11	163, 164 57	Best Available Control Technology General provisions - compliance with standards and maintenance requirements
FACILITY	40CFR 60-A.12	58	General provisions - Circumvention
FACILITY	40CFR 60-A.13	59	General provisions - Monitoring requirements
FACILITY	40CFR 60-A.14	60	General provisions - Modification
FACILITY	40CFR 60-A.15	61	General provisions - Reconstruction
FACILITY	40CFR 60-A.4	46	General provisions - Address
FACILITY	40CFR 60-A.7(a)	47	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(b)	48	Notification and Recordkeeping
FACILITY	40CFR 60-A.7(d)	49	Notification and Recordkeeping
FACILITY	40CFR 60-A.8(a)	50	Performance Tests
FACILITY	40CFR 60-A.8(b)	51	Performance Tests
FACILITY	40CFR 60-A.8(c)	52	Performance Tests
FACILITY	40CFR 60-A.8(d)	53	Performance Tests
FACILITY	40CFR 60-A.8(e)	54	Performance Tests
FACILITY	40CFR 60-A.8(f)	55	Performance Tests
FACILITY	40CFR 60-A.9	56	General provisions - Availability of information
U-00001/00004	40CFR 60-Da.47a(c)	83	Emission Monitoring.
U-00001/-/P10	40CFR 60-Dc.44c(g)	76	Alternative Compliance and Performance Test Methods and Procedures for Sulfur Dioxide.
U-00001	40CFR 60-Dc.48c(a)	75	Reporting and Recordkeeping Requirements.
U-00002	40CFR 60-Dc.48c(a)	159	Reporting and Recordkeeping Requirements.
U-00001/00004/P01	40CFR 60-GG.334(b)	98	Monitoring of Operations: CEMS
FACILITY	40CFR 68	19	Chemical accident prevention provisions
FACILITY	40CFR 72	62	Permits regulation
FACILITY	40CFR 82-F	20	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	166	Unavoidable noncompliance and violations



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

FACILITY	6NYCRR 201-1.7	11	Recycling and Salvage Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-1.8	12	
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	
FACILITY	6NYCRR 201-6	21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 63, 64	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	15	
FACILITY	6NYCRR 201-6.4(a)(7)	2	General Conditions - Requirement to Provide Information General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	16	
U-00001/00004	6NYCRR 201-6.4(b)	77, 78	General Conditions - Right to Inspect Permit Conditions for Monitoring
FACILITY	6NYCRR 201-6.4(c)	3	
FACILITY	6NYCRR 201-6.4(c)(2)	4	Recordkeeping and Reporting of Compliance Monitoring Records of Monitoring, Sampling and Measurement
FACILITY	6NYCRR 201- 6.4(c)(3)(ii)	5	
FACILITY	6NYCRR 201-6.4(d)(4)	34	Reporting Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(e)	6	
FACILITY	6NYCRR 201-6.4(f)	35	Compliance Schedules - Progress Reports Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	17	
FACILITY	6NYCRR 201-7	36, 65, 66	Operational Flexibility Off Permit Changes Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-1.1	18	
FACILITY	6NYCRR 202-1.5	37	Required emissions tests. Prohibitions.
FACILITY	6NYCRR 202-2	38	
FACILITY	6NYCRR 202-2.1	7	Emission Statements Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8	
FACILITY	6NYCRR 207	39	Emission Statements - record keeping requirements. Control Measures for an Air Pollution Episode
FACILITY	6NYCRR 211.1	40	
FACILITY	6NYCRR 215.2	9	General Prohibitions - air pollution prohibited Open Fires - Prohibitions
FACILITY	6NYCRR 225-1.2(g)	41	
FACILITY	6NYCRR 225-1.2(h)	42	Sulfur-in-Fuel Limitations Sulfur-in-Fuel Limitations
U-00001/00004	6NYCRR 227-1.3(a)	79	
U-	6NYCRR 227-	99	Smoke Emission Limitations. 2010 NOx RACT



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

00001/00004/P05/BOILL1 FACILITY U-00001	2.4(c)(1)(ii) 6NYCRR 231-2.4 6NYCRR 231-2.5	43, 44 67, 68, 69	presumptive limit. Permit Requirements Lowest achievable emission rate, LAER Emission reduction credits
U-00001	6NYCRR 231-2.6	70, 71, 72	
U-00001/00004/P01	6NYCRR 231-2.7(b)	84, 85, 86, 87, 88, 89	Net emission increase determination
U-00001/00004/P05/BOILL1	6NYCRR 231-2.7(b)	100, 101, 102, 103, 104, 105	Net emission increase determination
U-00001/00004/P10	6NYCRR 231-2.7(b)	112, 113, 114, 115, 116, 117	Net emission increase determination
U-00001/00004/P11	6NYCRR 231-2.7(b)	128, 129, 130, 131, 132, 133	Net emission increase determination
U-00001/00004/P12	6NYCRR 231-2.7(b)	143, 144, 145, 146, 147, 148	Net emission increase determination
U-00002/00005/P22/00DFP	6NYCRR 231-2.7(b)	160, 161, 162	Net emission increase determination
U-00001	6NYCRR 231-2.9	73	Emission offsets
FACILITY	6NYCRR 242-1.5	167, 168, 169	CO2 Budget Trading Program - Standard requirements

Applicability Discussion:

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

ECL 19-0301

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

6 NYCRR 200.6

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

6 NYCRR 200.7

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

6 NYCRR 201-1.4

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

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)

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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6 NYCRR 201-6.4 (c) (3) (ii)

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

6 NYCRR 201-6.4 (d) (5)

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

6 NYCRR 201-6.4 (e)

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

6 NYCRR 201-6.4 (f) (6)

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

6 NYCRR 202-1.1

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

6 NYCRR 202-2.1

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

6 NYCRR 202-2.5

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

6 NYCRR 215.2

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

40 CFR Part 68

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

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act AmENDments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and



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

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

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, ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC has been determined to be subject to the following regulations:

40 CFR 52.21

40 CFR 52.21 (j)

40 CFR 60.11

40 CFR 60.12

40 CFR 60.13

40 CFR 60.14

40 CFR 60.15

40 CFR 60.334 (b)

40 CFR 60.4

40 CFR 60.44c (g)

40 CFR 60.47a (c)

40 CFR 60.48c (a)

40 CFR 60.7 (a)

40 CFR 60.7 (b)



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

40 CFR 60.7 (d)

40 CFR 60.8 (a)

40 CFR 60.8 (b)

This regulation contains the requirements for Performance test methods and procedures, to be used by the owner or operator , of the affected facility.

40 CFR 60.8 (c)

40 CFR 60.8 (d)

40 CFR 60.8 (e)

40 CFR 60.8 (f)

40 CFR 60.9

40 CFR Part 72

6 NYCRR 201-6.4 (b)

This citation requires a Title V permit to include provisions pertaining to monitoring. In addition to the applicable requirements specified in this Title V permit, there are two facility specific monitoring requirements. One is to limit the gas turbine to fire only natural gas and distillate oil. The other is to limit the gas turbine not to operate below 50% load, except during startup/shutdown, combustion tuning and emergency conditions.

6 NYCRR 201-6.4 (f)

6 NYCRR 202-1.5

6 NYCRR 211.1



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

6 NYCRR 225-1.2 (g)

6 NYCRR 225-1.2 (h)

6 NYCRR 227-1.3 (a)

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

6 NYCRR 231-2.4

6 NYCRR 231-2.5

6 NYCRR 231-2.6

6 NYCRR 231-2.7 (b)

6 NYCRR 231-2.9

6 NYCRR 242-1.5

6 NYCRR Part 207

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 41.6448 MM gallons of distillate fuel each for Process P10 and Process P12.

6 NYCRR Subpart 202-2

Compliance Certification

Summary of monitoring activities at ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC:

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



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

U-00001	74	record keeping/maintenance procedures
U-00001/00004	80	record keeping/maintenance procedures
FACILITY	45	work practice involving specific operations
U-00001/00004	81	work practice involving specific operations
U-00001/00004	82	work practice involving specific operations
U-00001/00004/P01	90	intermittent emission testing
U-00001/00004/P01	91	intermittent emission testing
U-00001/00004/P01	92	intermittent emission testing
U-00001/00004/P01	93	continuous emission monitoring (cem)
U-00001/00004/P01	94	intermittent emission testing
U-00001/00004/P01	95	intermittent emission testing
U-00001/00004/P01	96	intermittent emission testing
U-00001/00004/P01	97	continuous emission monitoring (cem)
U-00001/00004/P05/BOIL1	106	record keeping/maintenance procedures
U-00001/00004/P05/BOIL1	107	intermittent emission testing
U-00001/00004/P05/BOIL1	108	intermittent emission testing
U-00001/00004/P05/BOIL1	109	intermittent emission testing
U-00001/00004/P05/BOIL1	110	intermittent emission testing
U-00001/00004/P10	118	continuous emission monitoring (cem)
U-00001/00004/P10	119	continuous emission monitoring (cem)
U-00001/00004/P10	120	intermittent emission testing
U-00001/00004/P10	121	intermittent emission testing
U-00001/00004/P10	122	intermittent emission testing
U-00001/00004/P10	123	intermittent emission testing
U-00001/00004/P10	124	intermittent emission testing
U-00001/00004/P10	125	intermittent emission testing
U-00001/00004/P10	126	intermittent emission testing
U-00001/00004/P10	127	work practice involving specific operations
U-00001/00004/P11	134	intermittent emission testing
U-00001/00004/P11	135	intermittent emission testing
U-00001/00004/P11	136	intermittent emission testing
U-00001/00004/P11	137	intermittent emission testing
U-00001/00004/P11	138	intermittent emission testing
U-00001/00004/P11	139	continuous emission monitoring (cem)
U-00001/00004/P11	140	continuous emission monitoring (cem)
U-00001/00004/P11	141	intermittent emission testing
U-00001/00004/P12	149	continuous emission monitoring (cem)
U-00001/00004/P12	150	continuous emission monitoring (cem)
U-00001/00004/P12	151	work practice involving specific operations
U-00001/00004/P12	152	intermittent emission testing
U-00001/00004/P12	153	intermittent emission testing
U-00001/00004/P12	154	intermittent emission testing
U-00001/00004/P12	155	intermittent emission testing
U-00001/00004/P12	156	intermittent emission testing
U-00001/00004/P12	157	intermittent emission testing
U-00001/00004/P12	158	intermittent emission testing
U-00002/00005/P22/00DFP	163	intermittent emission testing
U-00002/00005/P22/00DFP	164	intermittent emission testing
U-00001/00004	83	continuous emission monitoring (cem)
U-00001	75	record keeping/maintenance procedures
U-00002	159	record keeping/maintenance procedures
U-00001/00004/P01	98	monitoring of process or control device parameters as surrogate
FACILITY	23	continuous emission monitoring (cem)
FACILITY	24	continuous emission monitoring (cem)
FACILITY	25	continuous emission monitoring (cem)
FACILITY	26	continuous emission monitoring (cem)
FACILITY	27	continuous emission monitoring (cem)
FACILITY	28	continuous emission monitoring (cem)
FACILITY	29	continuous emission monitoring (cem)
FACILITY	30	continuous emission monitoring (cem)



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

FACILITY	31	continuous emission monitoring (cem)
FACILITY	32	continuous emission monitoring (cem)
FACILITY	33	record keeping/maintenance procedures
U-00001/00004	77	record keeping/maintenance procedures
U-00001/00004	78	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	35	monitoring of process or control device parameters as surrogate
U-00001/00004/P10	111	work practice involving specific operations
U-00001/00004/P12	142	work practice involving specific operations
FACILITY	7	record keeping/maintenance procedures
FACILITY	41	work practice involving specific operations
FACILITY	42	work practice involving specific operations
U-00001/00004	79	monitoring of process or control device parameters as surrogate
U-00001/00004/P05/BOIL1	99	intermittent emission testing
U-00001	67	continuous emission monitoring (cem)
U-00001	68	continuous emission monitoring (cem)
U-00001	69	work practice involving specific operations
U-00001	70	continuous emission monitoring (cem)
U-00001	71	continuous emission monitoring (cem)
U-00001	72	work practice involving specific operations
U-00001/00004/P01	84	intermittent emission testing
U-00001/00004/P01	85	continuous emission monitoring (cem)
U-00001/00004/P01	86	continuous emission monitoring (cem)
U-00001/00004/P01	87	intermittent emission testing
U-00001/00004/P01	88	continuous emission monitoring (cem)
U-00001/00004/P01	89	continuous emission monitoring (cem)
U-00001/00004/P05/BOIL1	100	intermittent emission testing
U-00001/00004/P05/BOIL1	101	intermittent emission testing
U-00001/00004/P05/BOIL1	102	intermittent emission testing
U-00001/00004/P05/BOIL1	103	intermittent emission testing
U-00001/00004/P05/BOIL1	104	intermittent emission testing
U-00001/00004/P05/BOIL1	105	intermittent emission testing
U-00001/00004/P10	112	intermittent emission testing
U-00001/00004/P10	113	continuous emission monitoring (cem)
U-00001/00004/P10	114	continuous emission monitoring (cem)
U-00001/00004/P10	115	continuous emission monitoring (cem)
U-00001/00004/P10	116	continuous emission monitoring (cem)
U-00001/00004/P10	117	intermittent emission testing
U-00001/00004/P11	128	continuous emission monitoring (cem)
U-00001/00004/P11	129	continuous emission monitoring (cem)
U-00001/00004/P11	130	intermittent emission testing
U-00001/00004/P11	131	intermittent emission testing
U-00001/00004/P11	132	continuous emission monitoring (cem)
U-00001/00004/P11	133	continuous emission monitoring (cem)
U-00001/00004/P12	143	continuous emission monitoring (cem)
U-00001/00004/P12	144	intermittent emission testing
U-00001/00004/P12	145	intermittent emission testing
U-00001/00004/P12	146	continuous emission monitoring (cem)
U-00001/00004/P12	147	continuous emission monitoring (cem)
U-00001/00004/P12	148	continuous emission monitoring (cem)
U-00002/00005/P22/00DFP	160	intermittent emission testing
U-00002/00005/P22/00DFP	161	intermittent emission testing
U-00002/00005/P22/00DFP	162	intermittent emission testing
U-00001	73	record keeping/maintenance procedures
FACILITY	168	record keeping/maintenance procedures
FACILITY	169	record keeping/maintenance procedures

Basis for Monitoring



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

This facility is subject to the requirements of Title V. The facility is required, under the provisions of 6 NYCRR Subpart 201-6, to submit semiannual compliance reports and an annual Compliance Certification. This facility has to comply with the following monitoring conditions:

Condition # 5 for 6NYCRR Part 201-6.4(c)(3)(ii): This is a facility-wide condition. This condition is for Recordkeeping/Maintenance Procedures. This condition 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.

Condition # 6 for 6NYCRR Part 201-6.4(e): This is a facility-wide condition. This condition is for Recordkeeping/Maintenance Procedures. This condition specifies the overall permit requirements for compliance certification, including emission limitations, standards or work practices.

Condition # 7 for 6NYCRR Part 202-2.1: This is a facility-wide condition. This condition is for Recordkeeping/Maintenance Procedures. This condition sets forth the applicability criteria for submitting an annual statement of emissions. The criteria is based on annual emission threshold quantities and ozone attainment designation. This condition is a requirement for all Title V facilities. These facilities must submit an annual emission statement by April 15th of each year.

Condition # 23 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P11 and ES/C: 0T001, 0T002, 0T003 and 0T004/00CO1, 00CO2, 00CO3, 00CO4, 0DLN1, 0DLN2, 0DLN3, 0DLN4, 0SCR1, 0SCR2, 0SCR3, and 0SCR4 for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen.

This condition is for Continuous Emission Monitoring (CEMS) for NO_x with a limit of 2,100 pounds per event for start-up - after extended outage or combustion tuning event.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up after extended outage or combustion tuning event limits for NO_x for Combustion Turbine Unit



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas without Duct Burners (Process P11) and with emission controls of Carbon Monoxide Oxidation Catalyst, Low NOx Combustors and Selective Catalytic Reduction.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NOx and CO, but not for NH3 limitations since it is not a regulated pollutant.

START-UP - AFTER EXTENDED OUTAGE OR COMBUSTION TUNING EVENT:
NOx: 2,100 lbs/event

Extended start-ups to perform combustion tuning, or the period after an extended outage to bring a combustion turbine unit back online, shall not exceed 14 hours and may occur a maximum of 4 times per calendar year per combustion turbine generator engine.

The emission limit of 2,100 pounds for total NOx emissions per start-up after extended outage or combustion tuning event not exceeding 14 hours per occurrence and may occur a maximum of 4 times per calendar year per combustion turbine generator engine, applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

NOx limit: 2,100 lbs/event for start-up - after extended outage or combustion tuning event.

Condition # 24 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P12 and ES/C: 0T001, 0T002, 0T003 and 0T004/00CO1, 00CO2, 00CO3, 00CO4, 0SCR1, 0SCR2, 0SCR3, 0SCR4, 0W101, 0W102, 0W103 and 0W104 for Continuous Emission Monitoring (CEM) for Carbon Monoxide.

This condition is for Continuous Emission Monitoring (CEMS) for CO with a limit of 2,400 pounds per event for start-up - after extended outage or combustion tuning event.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up,



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

shutdown, and fuel switching emission rates for NOx and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up after extended outage or combustion tuning event limits for CO for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on distillate oil with natural gas with Duct Burners (Process P12) and with emission controls of Carbon Monoxide Oxidation Catalyst, Selective Catalytic Reduction and Water Injection Control.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NOx and CO, but not for NH3 limitations since it is not a regulated pollutant.

START-UP - AFTER EXTENDED OUTAGE OR COMBUSTION TUNING EVENT:
CO: 2,400 lbs/event

Extended start-ups to perform combustion tuning, or the period after an extended outage to bring a combustion turbine unit back online, shall not exceed 14 hours and may occur a maximum of 4 times per calendar year per combustion turbine generator engine.

The emission limit of 2,400 pounds for total CO emissions per start-up after extended outage or combustion tuning event not exceeding 14 hours per occurrence and may occur a maximum of 4 times per calendar year per combustion turbine generator engine, applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

CO limit: 2,400 lbs/event for start-up - after extended outage or combustion tuning event.

Condition # 25 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P10 and ES/C: 0T001, 0T002, 0T003 and 0T004/00CO1, 00CO2, 00CO3, 00CO4, 0SCR1, 0SCR2, 0SCR3, 0SCR4, 0W101, 0W102, 0W103 and 0W104 for Continuous Emission Monitoring (CEM) for Carbon Monoxide.

This condition is for Continuous Emission Monitoring (CEMS) for CO with a limit of 2,000 pounds per event for distillate oil start-up - after extended outage or combustion tuning event.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up distillate oil limits for CO for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on distillate oil without Duct Burners (Process P10) and with emission controls of Carbon Monoxide Oxidation Catalyst, Selective Catalytic Reduction and Water Injection Control.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

START-UP - DISTILLATE OIL: CO: 2,000 lbs/event

The emission limit of 2,000 pounds for total CO emissions per start-up of distillate oil event not exceeding ten (10) hours applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

CO limit: 2,000 lbs/event for distillate oil start-up.

Condition # 26 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, P10 and P12, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/00CO1, 00CO2, 00CO3, 00CO4, 0SCR1, 0SCR2, 0SCR3, 0SCR4, 0W101, 0W102, 0W103 and 0W104 for Continuous Emission Monitoring (CEM) for Carbon Monoxide.

This condition is for Continuous Emission Monitoring (CEMS) for CO with a limit of 300 pounds per event for fuel transfer.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates limit for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following fuel transfer limits for CO for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burner (Process P01), on distillate oil without Duct Burner (Process P10), on natural gas without Duct Burners (Process P11), and on distillate oil with Duct Burners (Process P12) and with emission control of Carbon Monoxide Oxidation Catalyst.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

FUEL TRANSFER: CO: 300 lbs/event

Fuel Transfer is defined as the period of time from initiation of the fuel transfer process in the combustion turbine generator engine until the fuel transfer process is completed, not to exceed 120 minutes per occurrence.

The emission limit of 300 pounds for total CO emissions per fuel transfer event not exceeding 120 minutes per occurrence applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

CO limit: 300 lbs/event for fuel transfer.

Condition # 27 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, P10 and P12, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/00CO1, 00CO2, 00CO3, 00CO4, 0SCR1, 0SCR2, 0SCR3, 0SCR4, 0W101, 0W102, 0W103 and 0W104 for Continuous Emission Monitoring (CEM) for Carbon Monoxide.

This condition is for Continuous Emission Monitoring (CEMS) for CO with a limit of 300 pounds per event for shut-down.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following shutdown limits for CO for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burners (Process P01), on distillate oil without Duct Burners (Process P10), on natural gas without Duct Burners (Process P11), and on distillate oil with Duct Burners (Process P12) and with emission control of Carbon Monoxide Oxidation Catalyst.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

SHUTDOWN: CO: 300 lbs/event

Shutdown is defined as the period of time when the stop signal is initiated to when fuel is no longer combusted in the combustion turbine generator engine or a subsequent start is initiated, not to exceed 120 minutes per occurrence.

The emission limit of 300 pounds for total CO emissions per shutdown event not exceeding 120 minutes per occurrence applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

CO limit: 300 lbs/event for shutdown.

Condition # 28 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, P10, P11 and P12, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/00CO1, 00CO2, 00CO3, 00CO4, 0DLN1, 0DLN2, 0DLN3, 0DLN4, 0SCR1, 0SCR2, 0SCR3, and 0SCR4 for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen.

This condition is for Continuous Emission Monitoring (CEMS) for NO_x with a limit of 300 pounds per event for fuel transfer.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following fuel transfer limits for NO_x for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burners (Process P01), on distillate oil without Duct Burners (Process P10), on natural gas without Duct Burners (Process P11), and on distillate oil with Duct Burners (Process P12) and with emission controls of Low NO_x Combustor and Selective Catalytic Reduction.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

FUEL TRANSFER: NO_x: 300 lbs/event

Fuel Transfer is defined as the period of time from initiation of the fuel transfer process in the combustion turbine generator engine until the fuel transfer process is completed, not to exceed 120 minutes per occurrence.

The emission limit of 300 pounds for total NO_x emissions per fuel transfer event not exceeding 120 minutes per occurrence applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

NO_x limit: 300 lbs/event for fuel transfer.

Condition # 29 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/00CO1, 00CO2, 00CO3, 00CO4, 0DLN1, 0DLN2, 0DLN3, 0DLN4, 0SCR1, 0SCR2, 0SCR3, and 0SCR4 for Continuous Emission Monitoring (CEM) for Carbon Monoxide.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

This condition is for Continuous Emission Monitoring (CEMS) for CO with a limit of 1,500 pounds per event for natural gas start-up.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up natural gas limits for CO for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burners (Process P01), and with emission controls of Carbon Monoxide Oxidation Catalyst, Low NO_x Combustors and Selective Catalytic Reduction.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

START-UP - NATURAL GAS: CO: 1,500 lbs/event

Start-up is defined as the period that begins when the combustion turbine generator engine is first fired with fuel and ends when the combustion turbine generator engine begins operating in Mode 6Q plus 60 minutes, not to exceed 10 hours.

The emission limit of 1,500 pounds for total CO emissions per start-up of natural gas event not exceeding ten (10) hours applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

CO limit: 1,500 lbs/event for natural gas start-up.

Condition # 30 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P10, and ES/C: 0T001, 0T002, 0T003 and 0T004 /00CO1, 00CO2, 00CO3, 00CO4, 0SCR1, 0SCR2, 0SCR3, 0SCR4, 0W101, 0W102, 0W103 and 0W104 for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

This condition is for Continuous Emission Monitoring (CEMS) for NO_x with a limit of 2,000 pounds per event for distillate oil start-up.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up distillate oil limits for NO_x for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on distillate oil without Duct Burner (Process P10), and with emission control of Carbon Monoxide Oxidation Catalyst, Selective Catalytic Reduction and Water Injection Control.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

START-UP - DISTILLATE OIL: NO_x

Start-up is defined as the period that begins when the combustion turbine generator engine 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 10 hours. Mode 6Q is achieved after start-up is complete.

The emission limit of 2,000 pounds for total NO_x emissions per start-up of distillate oil event not exceeding ten (10) hours applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

NO_x limit: 2,000 lbs/event for distillate oil start-up.

Condition # 31 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/00CO1, 00CO2, 00CO3, 00CO4, 0DLN1, 0DLN2,



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

0DLN3, 0DLN4, 0SCR1, 0SCR2, 0SCR3, and 0SCR4 for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen.

This condition is for Continuous Emission Monitoring (CEMS) for NO_x with a limit of 1,500 pounds per event for natural gas start-up.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up natural gas limits for NO_x for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burner (Process P01), and with emission controls of Carbon Monoxide Oxidation Catalyst, Low NO_x Combustors and Selective Catalytic Reduction.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

START-UP - NATURAL GAS: NO_x: 1,500 lbs/event

The emission limit of 1,500 pounds for total NO_x emissions per start-up of natural gas event not exceeding ten (10) hours applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

NO_x limit: 1,500 lbs/event for natural gas start-up.

Condition # 32 for 6NYCRR Part 201-6: This condition is an emission unit level, emission point level, process level and emission source/control level condition that applies to EU: U-00001, EP: 00004, Proc: P01, P10, P11 and P12, and ES/C: 0T001, 0T002, 0T003, 0T004, 00DB1, 00DB2, 00DB3 and 00DB4/0DLN1, 0DLN2, 0DLN3, 0DLN4, 0SCR1, 0SCR2, 0SCR3, and 0SCR4 for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

This condition is for Continuous Emission Monitoring (CEMS) for NO_x with a limit of 300 pounds per event for shut-down.

The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

Astoria Energy LLC & Astoria Energy II LLC is proposing the following shutdown limits for NO_x for Combustion Turbine Unit No. 101 (CT1) - Emission Source 0T001, Unit No. 201 (CT2) - Emission Source 0T002, Unit No. 301 (CT3) - Emission Source 0T003, and Unit No. 401 (CT4) - Emission Source 0T004 operating on natural gas with Duct Burner (Process P01), on natural gas without Duct Burners (Process P11), and on distillate oil with Duct Burners (Process P12) and with emission controls of Low NO_x Combustors and Selective Catalytic Reduction.

Astoria Energy LLC & Astoria Energy II LLC utilizes an Air Cooled Condenser technology to provide cooling of the condensate for each of the four combustion turbine units. The facility is submitting limitations for NO_x and CO, but not for NH₃ limitations since it is not a regulated pollutant.

SHUTDOWN: NO_x: 300 lbs/event

Shutdown is defined as the period of time when the stop signal is initiated to when fuel is no longer combusted in the combustion turbine generator engine or a subsequent start is initiated, not to exceed 120 minutes per occurrence.

The emission limit of 300 pounds for total NO_x emissions per shutdown event not exceeding 120 minutes per occurrence applies to each of the four combustion turbines indicated in this condition. The emissions in excess of this limit shall be reported in the excess emission report. All records shall be maintained at the facility for a period of at least five (5) years.

NO_x limit: 300 lbs/event for shutdown.

Condition # 33 for 6 NYCRR 201-6: This is a facility-wide condition. This condition is for Recordkeeping/Maintenance Procedures. The owner or operator shall, within one year following the commencement of commercial operation, submit start-up, shutdown, and fuel switching data with an application for permit modification to establish enforceable combustion turbine start-up, shutdown, and fuel switching emission rates for NO_x, CO,



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

and NH₃, and confirm that such established rates would not result in a violation of applicable NAAQS.

In the event that a minimum of 15 start-ups and 15 shutdowns, while firing distillate oil, does not occur within the one year period defined above, the owner or operator will be required to submit start-up and shutdown data, with an application for permit modification, once the 15 start-ups and shutdowns while firing distillate oil occur.

Also, if a minimum of 15 fuel switches do not occur within the one year period defined above, the owner or operator will be required to submit fuel switching data with an application for permit modification once the 15 fuel switches occur.

Condition # 35 for 6 NYCRR 201-6.5(f): This is a facility-wide condition. This condition is for Monitoring of process or Control Device Parameters as Surrogate. The four combustion turbines may not operate below 40% load except during periods of start-up, shutdown, fuel switching, or malfunction (not to exceed 3 hours/occurrence) and during periods of annual electrical feed line maintenance (not to exceed 24 hrs/yr. The facility currently has installed new GE technology package - OPERATIONAL FLEXIBILITY (Op Flex) which allows the combustion turbines to operate down to 40% inlet load, rather than the current normal of 50%.

The 40% minimum inlet load operational flexibility is allowed as long as there is no increase in emissions at that level that would result in emissions above existing standards for the following:

1. NO_x for NO_x RACT (6 NYCRR 227-2).
2. NO_x, VOC and CO for LAER/NSR (6 NYCRR 231-2.7(b)).
3. SO₂, H₂SO₄, NH₃, and PM-a0/Particulates for BACT/PSD (40 CFR 52-A.21(j)).

Condition # 41 for 6 NYCRR 225-1.2(g) for Sulfur Content: This is a facility-wide condition. This condition is for Work Practice Involving Specific Operations. The distillate fuel oil (#2 heating oil) purchase is limited to 0.0015 percent sulfur by weight on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Condition # 42 for 6 NYCRR 225-1.2(h) for Sulfur Content: This is a facility-wide condition. This condition is for Work Practice Involving Specific Operations. The distillate fuel oil (#2 heating oil) firing is limited to 0.0015 percent sulfur by weight on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Condition # 45 for 40 CFR 52.21 (j), Subpart A for Sulfur Content: This is a facility-wide condition. This condition is for Work Practice Involving Specific Operations. The



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

distillate fuel oil (#2 heating oil) firing is limited to 0.033 percent sulfur by weight until June 30, 2014, and 0.0015 percent by weight thereafter. Compliance with this limit will be based on vendor certifications.

Condition # 45 for 40 CFR 52.21(j), Subpart (A) for Sulfur Dioxide: This is a facility-wide condition. This condition is for Work Practice Involving Specific Operations for Sulfur Dioxide. Best Available Control Technology (BACT) is required for this facility. Prevention of Significant Deterioration (PSD) is required for this facility because this facility is located in an attainment area and emits pollutants which are listed in 40 CFR 52.21(b)(23)(i). This condition requires the facility to monitor the Sulfur Dioxide. Distillate fuel oil will be used as a backup up to 720 hours per year in the turbine. The sulfur content of the distillate will be monitored and will not exceed 0.033 % by weight until June 30, 2014, and 0.0015% by weight thereafter. The distillate fuel oil is to be tested each time it is transferred to the storage tank. The Monitoring Frequency is Per batch of product/Raw Material Change and the Reporting Requirement is quarterly.

Condition # 67 for 6 NYCRR 231-2.5 for Carbon Monoxide: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. Lowest Achievable Emission Rate (LAER) is required for this facility. Emission controls equivalent to the lowest achievable emission rate (LAER) must be implemented for each contaminant for which Subpart 231-2 is applicable for a given source project or new major facility. LAER is defined as the most stringent emission limitation achieved in practice or which can be expected to be achieved in practice for a category of emission sources taking into consideration each air contaminant which must be controlled as in 6 NYCRR 200.1. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Carbon Monoxide LAER emission limit of 144 tons per year by using Continuous Emission Monitoring (CEM) to continuously monitor the Carbon Monoxide emission. The Monitoring Frequency is continuous, the Reporting Requirement is quarterly (anniversary) and the Averaging Method is annual maximum rolled daily.

Condition # 68 for 6 NYCRR 231-2.5 for Oxides of Nitrogen: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. Lowest Achievable Emission Rate (LAER) is required for this facility. Emission controls equivalent to the lowest achievable emission rate (LAER) must be implemented for each contaminant for which Subpart 231-2 is applicable for a given source project or new major facility. LAER is defined as the most stringent emission limitation achieved in practice or which can be expected to be achieved in practice for a category of emission sources taking into consideration each air contaminant which must be controlled as in 6 NYCRR 200.1. The



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Oxides of Nitrogen LAER emission limit of 324 tons per year by using Continuous Emission Monitoring (CEM) to continuously monitor the Oxides of Nitrogen emission. The Monitoring Frequency is continuous, the Reporting Requirement is quarterly (anniversary) and the Averaging Method is annual maximum rolled daily.

Condition # 69 for 6 NYCRR 231-2.5 for VOC: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Work Practice Involving Specific Operations for VOC. Lowest Achievable Emission Rate (LAER) is required for this facility. Emission controls equivalent to the lowest achievable emission rate (LAER) must be implemented for each contaminant for which Subpart 231-2 is applicable for a given source project or new major facility. LAER is defined as the most stringent emission limitation achieved in practice or which can be expected to be achieved in practice for a category of emission sources taking into consideration each air contaminant which must be controlled as in 6 NYCRR 200.1. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Volatile Organic Compounds (VOC) LAER emission limit of 108 tons per year based on the stack test which is done periodically for monitoring the VOC emission. The Monitoring Frequency is annually, the Reporting Requirement is annually (anniversary) and the Averaging Method is the arithmetic mean.

Condition # 70 for 6 NYCRR 231-2.6 for Carbon Monoxide: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide for emission reduction credits. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. The requirements and criteria for creating and certifying emission reduction credits (ERCs) are set forth in section 231-2.6. Lowest Achievable Emission Rate (LAER) is required for this facility. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Carbon Monoxide LAER emission limit of 144 tons per year by using Continuous Emission Monitoring (CEM) to continuously monitor the Carbon Monoxide emission. The Monitoring Frequency is continuous, the Reporting Requirement is quarterly (anniversary) and the Averaging Method is annual maximum rolled daily.

Condition # 71 for 6 NYCRR 231-2.6 for Oxides of Nitrogen: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen for emission reduction credits. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. The requirements and criteria for creating and certifying emission reduction credits (ERCs) are set forth in section 231-2.6. Lowest Achievable Emission



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Rate (LAER) is required for this facility. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Oxides of Nitrogen (NO_x) LAER emission limit of 324 tons per year by using Continuous Emission Monitoring (CEM) to continuously monitor the NO_x emission. The Monitoring Frequency is continuous, the Reporting Requirement is quarterly (anniversary) and the Averaging Method is annual maximum rolled daily.

Condition # 72 for 6 NYCRR 231-2.6 for VOC: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Work Practice Involving Specific Operations for VOC for emission reduction credits. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. The requirements and criteria for creating and certifying emission reduction credits (ERCs) are set forth in section 231-2.6. Lowest Achievable Emission Rate (LAER) is required for this facility. This condition requires Astoria Energy has to keep records for demonstration of compliance with the Volatile Organic Compounds (VOC) LAER emission limit of 108 tons per year based on the stack test which is done periodically for monitoring the VOC emission. The Monitoring Frequency is annually, the Reporting Requirement is annually (anniversary) and the Averaging Method is the arithmetic mean.

Condition # 73 for 6 NYCRR 231-2.9: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Recordkeeping/Maintenance Procedures for emission offsets. The provisions of Subpart 231-2 (New Source Review) apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides (NO_x) and volatile organic compounds (VOC) since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In the New York City metropolitan area, carbon monoxide is also a non-attainment contaminant. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The project emission potential for a proposed source project must be offset with emission reduction credits created or obtained pursuant to 6 NYCRR 231-2.6 or obtained from a state in which New York State has a reciprocal trading agreement in place. Astoria Energy is obtaining the following Emission Reduction Credit transfer:

- (a). 145 tons per year of VOC ERCs from PG & E Energy Trading (which were originally transferred from General Motors Corporation's North Tarrytown Plant (Sleepy Hollow) , DEC ID # 3-5534-00104).
- (b). 425 tons per year of NO_x ERCs from Con Edison in Astoria, DEC ID # 2-6301-00006.
- (c). 145 tons per year of CO ERCs from Con Edison in Astoria, DEC ID # 2-6301-00006.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

The Monitoring Frequency is single occurrence and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 74 for 40 CFR 52.21, Subpart A: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Recordkeeping/Maintenance Procedures for CEM (Continuous Emission Monitoring). Prevention of Significant Deterioration (PSD) is required for this facility because this facility is located in an attainment area and emits pollutants which are listed in 40 CFR 52.21(b)(23)(i). This condition requires the Astoria Energy to submit quarterly written CEM report to NYSDEC. The Monitoring Frequency is as required (submit quarterly written CEM report) and the Reporting Requirement is quarterly.

Condition # 75 for 40 CFR 60.48c(a), NSPS Subpart Dc: This condition is an emission unit level condition that applies to EU: U-00001. This condition is for Recordkeeping/Maintenance Procedures for NSPS. This is a reporting and recordkeeping requirement of NSPS (New Source Performance Standards) for Emission Unit U-00001 (the four turbines and the auxiliary boiler). This regulation requires the owner and operator of each affected facility to submit notification of the date of construction or reconstruction, anticipated startup, and actual startup of the facility. The notification must include: the design heat input capacity and identification of fuels to be combusted, if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c, or 40 CFR 60.43c and the annual capacity factor at which the owner or operator anticipates operating based on all fuels fired and based on each individual fuel fired. The Monitoring Frequency is single occurrence and the reporting requirement is as required in the monitoring description (submit the notification of NSPS).

Condition # 77 for 6 NYCRR 201-6.4(b): This condition is an emission unit level and emission point level condition that applies to EU: U-00001 and EP: 00004. This condition is for Recordkeeping/Maintenance Procedures. This is a condition for the gas turbines not to operate below 50% load, except during startup and shutdown. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 78 for 6 NYCRR 201-6.4(b): This condition is an emission unit level and emission point level condition that applies to EU: U-00001 and EP: 00004. This condition is for Recordkeeping/Maintenance Procedures. This condition is for the gas turbine to fire only natural gas and distillate oil. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 79 for 6 NYCRR 227-1.3(a): This condition is an emission unit level and emission point level monitoring condition that applies to EU: U-00001 and EP: 00004. This condition is for Monitoring of Process or Control Device Parameters as Surrogate



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

for opacity. This condition 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. This condition requires a daily inspection for visible emissions. If visible emissions are noted for two consecutive days, a Method 9 test must be performed. The Monitoring Frequency is as required in the monitoring description (to comply with the 20% opacity limit) and the Reporting Requirement is semi-annually (calendar).

Condition # 80 for 40 CFR 52.21, Subpart A: This condition is an emission unit level and emission point level recordkeeping and reporting condition that applies to EU: U-00001 and EP: 00004. This condition is for Recordkeeping/Maintenance Procedures for PSD. Prevention of Significant Deterioration (PSD) is required for this facility because this facility is located in an attainment area and emits pollutants which are listed in 40 CFR 52.21(b)(23)(i). This condition requires the Astoria Energy to submit quarterly reports for monitoring the sulfur content in the distillate fuel oil. The sulfur content is not to exceed 0.033 percent by weight until June 30, 2014, and 0.0015 percent by weight thereafter as stated in Conditions # 42, 45 & 151. The sulfur content limit in the natural gas is as stated in Condition # 98 as 20 grains. The Monitoring Frequency is as required (recordkeeping and reporting of the sulfur content in the natural gas and the distillate fuel) and the Reporting Requirement is quarterly (calendar).

Condition # 81 for 40 CFR 52.21, Subpart A for Particulates: This condition is an emission unit level and emission point level condition that applies to EU: U-00001 and EP: 00004. This condition is for Work Practice Involving Specific Operations for Particulates. Prevention of Significant Deterioration (PSD) is required for this facility because this facility is located in an attainment area and emits pollutants which are listed in 40 CFR 52.21(b)(23)(i). The facility is limiting the Particulates in number 2 fuel oil to 582,000 pounds per year.

Astoria Energy will demonstrate compliance with the annual Particulates emission rate using stack testing results and fuel consumption data. The twelve-month rolling total will be recorded monthly. Astoria Energy will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel.

Condition # 82 for 40 CFR 52.21, Subpart A for PM-10: This condition is an emission unit level and emission point level condition that applies to EU: U-00001 and EP: 00004. This condition is for Work Practice Involving Specific Operations for Particulates. Prevention of Significant Deterioration (PSD) is required for this facility because this facility is located in an attainment area and emits pollutants which are listed in 40 CFR 52.21(b)(23)(i). The facility is limiting the PM-10 in number 2 fuel oil to 582,000 pounds per year.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Astoria Energy will demonstrate compliance with the annual PM-10 emission rate using stack testing results and fuel consumption data. The twelve-month rolling total will be recorded monthly. Astoria Energy will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel.

Condition # 83 for 40 CFR 60.47a(c), NSPS Subpart Da for Oxides of Nitrogen: This condition is an emission unit level and emission point level condition that applies to EU: U-00001 and EP: 00004. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. This condition requires the owner or operator of an affected facility to install, calibrate, maintain, and operate a continuous monitoring system, and to record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.

Astoria Energy will use a continuous emissions monitoring system (CEMS) to measure NO_x concentration in pounds per million Btus at Emission Point 00004 and Emission Unit U-00001 (from the combustion turbines and the auxiliary boiler). The limit of NO_x is 0.20 pounds per million Btus.

Condition # 84 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Net emission increase determination. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 0.003 lb/mm Btu VOC emission limit during natural gas firing in the turbines with duct burner. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 85 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the gas turbine/HRSG. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 1.5 parts per million by volume limit



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 86 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NOx emissions below the 2.0 parts per million by volume limit during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 87 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Net emission increase determination. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 5.92 pounds per hour VOC emission limit during natural gas firing in the turbines with duct burner. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 88 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Monitoring System (CEMS) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the gas turbine/HRSG. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 7.77 pounds per hour limit during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

Condition # 89 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Monitoring System (CEMS) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 17.0 pounds per hour limit during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 90 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines with duct burner firing natural gas is limited to 0.001 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 91 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. The facility will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the turbines with duct burner firing natural gas is limited to 0.0098 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 92 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. The facility will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the turbines with duct burner firing natural gas is limited to 0.0098 lb/mm Btu. The Monitoring



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 93 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Testing (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines with duct burner firing natural gas. The turbines are to maintain emissions of Ammonia below 15.7 pounds per hour. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 94 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. The facility will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the turbines with duct burner firing natural gas is limited to 18.0 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 95 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. The facility will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the turbines with duct burner firing natural gas is limited to 18.0 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition 96 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines with duct burner firing natural gas is limited to 2.37 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 97 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Continuous Emission Testing (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines with duct burner firing natural gas. The turbines are to maintain emissions of Ammonia below 5.0 parts per million by volume, dry, corrected to 15% oxygen. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NO_x and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 98 for 40 CFR 60.334(b), NSPS Subpart GG for Sulfur Dioxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P01. This condition is for Monitoring of Process or Control Device Parameters as Surrogate for Sulfur Dioxide. This condition is for natural gas sulfur content monitoring requirement. This condition requires the owner/operator of the gas turbine to monitor (measure) the sulfur content of the natural gas being fired in the turbines. This is a monitoring condition for the sulfur content in the natural gas used in the turbines with duct burner firing natural gas not to exceed the limit of 20 grains. The Monitoring Frequency is as required in the monitoring description (EPA's approval of the custom fuel monitoring schedule for testing the natural gas sulfur content) and the Reporting Requirement is quarterly (calendar).

Condition 99 for 6 NYCRR 227-2.4(c) (1) (ii) for Oxides of Nitrogen: This condition is an emission unit level, emission point level, process level and emission source condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Oxides of Nitrogen for the future NO_x RACT presumptive limit of 0.05 pounds per million Btus during natural gas firing in the auxiliary boiler effective July 1, 2014. The NO_x emission limit under the NO_x RACT plan for mid-size boilers is 0.05 pounds per million Btus during natural gas firing in the auxiliary boiler.

On or after July 1, 2014, the owner/operator of mid-size boilers (> 25 and equal to or <100 MM Btu/hr) boilers operating on natural gas only have a new limit of 0.05 pounds of NO_x per million Btus under the NO_x RACT plan for mid-size boilers.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

To comply with this Subpart, emission requirements for mid-size boilers (boilers with a heat input between 50 and 100 mmBtu/hr), owners or operators of a mid-size boiler must meet the requirements of either paragraph (1) or (2) of this subdivision. Astoria Energy is required to initially stack test the mid-size boiler for NO_x emission limit compliance.

To comply with this Subpart, owners or operators of mid-size boilers must meet the requirements of either paragraph (1) or (2) of this subdivision by May 31, 1995. The emission limit for NO_x RACT for mid-size boiler (between 50 and 100 MM Btu/hr) operating on natural gas only is 0.05 pounds of NO_x per million Btu effective July 1, 2014. However, Astoria Energy is required to comply with LAER, for which the NO_x emission limit is 0.05 lbs/MM Btu rather than the 0.05 lbs/MM Btu limit under the NO_x RACT plan for mid-size boilers.

Compliance with the 0.05 lbs/MM Btu emission limit effective July 1, 2014 shall be determined with a one hour average in accordance with section 227-2.6(a)(4) of this Subpart unless the owner/operator opts to utilize CEMS under the provisions of section 227-2.6(a)(2) of this Subpart. If CEMS are utilized, the requirements of section 227-2.6(b) of this Subpart apply, including the use of a 24 hour averaging period.

Condition # 100 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. Astoria Energy will show compliance with Oxides of Nitrogen emission by conducting an Intermittent Emission Testing (stack testing) for Oxides of Nitrogen in the stack from the auxiliary boiler once during the term of the permit and the results to be submitted to NYSDEC thereafter. A selective catalytic reduction unit is used to control NO_x mass emission rate below the 1.09 pounds per hour limit during natural gas firing in the auxiliary boiler. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 101 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. Astoria Energy will show compliance with Carbon Monoxide emission by conducting an Intermittent Emission Testing (stack testing) for Carbon Monoxide once during the term of the permit



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

and the results to be submitted to NYSDEC thereafter. The Carbon Monoxide emission must be maintained below the 0.020 lb/mm Btu limit from the auxiliary boiler firing natural gas. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 102 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the auxiliary boiler once during the term of the permit and the results to be submitted to NYSDEC thereafter. The VOC mass emission rate must be maintained below the 0.20 pounds per hour limit during natural gas firing in the auxiliary boiler. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 103 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. Astoria Energy will show compliance with Oxides of Nitrogen emission by conducting an Intermittent Emission Testing (stack testing) for Oxides of Nitrogen in the stack from the auxiliary boiler once during the term of the permit and the results to be submitted to NYSDEC thereafter. A selective catalytic reduction unit is used to control NOx emission below the 0.011 lb/mm Btu limit during natural gas firing in the auxiliary boiler. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 104 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. Astoria Energy will show compliance with Carbon Monoxide emission by conducting an Intermittent Emission Testing (stack testing) for Carbon Monoxide once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Carbon Monoxide mass emission rate must be maintained below the 1.98 pounds per hour limit from the auxiliary



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

boiler firing natural gas. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 105 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the auxiliary boiler once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst is used to control the VOC emissions below the 0.002 lb/mm Btu limit during natural gas firing in the auxiliary boiler. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 106 for 40 CFR 52.21(j), Subpart (A): This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Recordkeeping/Maintenance Procedures. Best Available Control Technology (BACT) is required for this facility. This is a condition for the auxiliary boiler not to operate below 50 % load. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 107 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. The facility will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) on the auxiliary boiler for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the auxiliary boiler firing natural gas is limited to 0.005 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 108 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) on



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

the auxiliary boiler for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the auxiliary boiler firing natural gas is limited to 0.005 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 109 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 mass emission rate limit of 0.495 pounds per hour by conducting an Intermittent Emission Testing (stack testing) on the auxiliary boiler for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 mass emission rate from the auxiliary boiler firing natural gas is limited to 0.495 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 110 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00001, EP: 00004, Proc: P05 and ES: BOIL1. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates mass emission rate limit of 0.495 pounds per hour by conducting an Intermittent Emission Testing (stack testing) on the auxiliary boiler for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates mass emission rate from the auxiliary boiler firing natural gas is limited to 0.495 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 111 for 6 NYCRR 201-7, Capping Out of 640 CFR 52.21 (j) for Sulfur Dioxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Work Practice Involving Specific Operations for distillate fuel oil. This is a condition for the total annual distillate fuel use not to exceed 41.6448 million gallons per year within any consecutive 365 day period for the gas turbines. The Monitoring Frequency is daily and the Reporting Requirement is quarterly.

Condition # 112 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 0.007 lb/mm Btu limit during distillate fuel oil firing in the turbines. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 113 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 6.0 parts per million by volume limit during distillate fuel oil firing in the turbines based upon high heating value (HHV) of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 114 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the turbines/HRSG firing distillate fuel oil. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 4.0 parts per million by volume limit during natural gas firing in the gas turbines with duct firing based on the HHV of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 115 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

Monoxide in the stack from the turbines/HRSG firing distillate fuel oil. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 19.7 pounds per hour limit during natural gas firing in the gas turbines with duct firing based on the HHV of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 116 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 48.5 pounds per hour limit during distillate fuel oil firing in the turbines based upon high heating value (HHV) of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 117 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 14.1 pounds per hour limit during distillate fuel oil firing in the turbines. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition #118 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Ammonia emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Ammonia in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NH₃ emissions below the 29.8 pounds per hour limit during distillate fuel oil firing in the turbines



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

based upon high heating value (HHV) of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 119 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines with duct burner firing distillate fuel oil. The turbines are to maintain emissions of Ammonia below 10.0 parts per million by volume, dry, corrected to 15% oxygen. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 120 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 mass emission rate from the turbines firing distillate fuel oil is limited to 57.7 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 121 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates mass emission rate from the turbines firing distillate fuel oil is limited to 57.7 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 122 for 40 CFR 52.21(j), Subpart (A) for Sulfur Dioxide: This condition is an emission unit level, emission point level and process level condition



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for Sulfur Dioxide. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfur Dioxide emission by conducting an Intermittent Emission Testing (stack testing) for Sulfur Dioxide once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfur Dioxide mass emission rate from the turbines firing distillate fuel oil is limited to 69.6 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 123 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the turbines firing distillate fuel oil is limited to 0.04 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 124 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission limit by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines with duct burner firing distillate fuel oil is limited to 0.0152 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 125 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the turbines firing distillate fuel oil is limited to 0.04 lb/mm Btu. The Monitoring Frequency is once during the term



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 126 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid mass emission rate from the turbines with duct burner firing distillate fuel oil is limited to 21.9 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 127 for 40 CFR 52.21(j), Subpart (A): This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P10. This condition is for Work Practice Involving Specific Operations for hours per year operation. Astoria Energy will burn distillate fuel as a backup fuel. The distillate fuel will have a sulfur limit of 0.033 % by weight until June 30, 2014, and 0.0015 % by weight sulfur content thereafter, for up to 720 hours per year per turbine. The Monitoring Frequency is daily and the Reporting Requirement is quarterly.

Condition # 128 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NOx emissions below the 15.6 pounds per hour limit during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 129 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the gas turbine/HRSG. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 7.15 pounds per hour limit during natural gas firing in the gas turbines without duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 130 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 5.43 pounds per hour limit during natural gas firing without duct firing in the turbines. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 131 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 0.003 lb/mm Btu limit during natural gas firing without duct firing in the turbines. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 132 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 2.0 parts per million by volume limit during natural gas firing in the gas turbines with duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 133 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the gas turbine/HRSG. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 1.5 parts per million by volume limit during natural gas firing in the gas turbines without duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 134 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates mass emission rate from the turbines without duct firing natural gas is limited to 12.9 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 135 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 mass emission rate from the turbines without duct firing natural gas is limited to 12.9 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Condition # 136 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines without duct burner firing natural gas is limited to 0.90 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 137 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the turbines without duct firing natural gas is limited to 0.0098 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 138 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the turbines without duct firing natural gas is limited to 0.0098 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 139 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines without duct burner firing distillate fuel oil. The turbines are to maintain mass emission rate limit



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

for Ammonia below 14.1 pounds per hour. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 140 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines without duct burner firing distillate fuel oil. The turbines are to maintain emissions of Ammonia below 5.0 parts per million by volume, dry, corrected to 15% oxygen. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 141 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Intermittent Emission Testing for Sulfuric Acid. This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P11. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines without duct burner firing natural gas is limited to 0.001 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 142 for 6 NYCRR 201-7, Capping Out of 40 CFR 52.21 (j) for Sulfur Dioxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Work Practice Involving Specific Operations for distillate fuel oil. This is a condition for the total annual distillate fuel use not to exceed 41.6448 million gallons per year within any consecutive 365 day period for the gas turbines. The Monitoring Frequency is daily and the Reporting Requirement is quarterly.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Condition # 143 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the gas turbine/HRSG. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 19.7 pounds per hour limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 144 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 0.007 lb/mm Btu limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 145 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds (VOC) emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC in the stack from the turbines once during the term of the permit and the results to be submitted to NYSDEC thereafter. An oxidation catalyst in the HRSG design of each turbine is used to control the VOC emissions below the 14.1 pounds per hour limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Condition # 146 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 6.0 parts per million by volume limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 147 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Oxides of Nitrogen in the stack from the gas turbine/HRSG. A selective catalytic reduction unit is used to control NO_x emissions below the 48.5 pounds per hour limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 148 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. A Continuous Emission Monitoring System (CEMS) is used to monitor emissions of Carbon Monoxide in the stack from the turbines/HRSG firing distillate fuel oil. An oxidation catalyst in the HRSG design of each turbine must be operated and emissions maintained below the 4.0 parts per million by volume limit from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner based on the HHV of fuel. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 149 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner. The turbines are to maintain mass emission rate limit for Ammonia below 29.8 pounds per hour. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 150 for 40 CFR 52.21(j), Subpart (A) for Ammonia: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Ammonia. Best Available Control Technology (BACT) is required for this facility. A CEMS (Continuous Emission Monitoring System) is used to monitor emissions of Ammonia from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner.

The turbines are to maintain emissions of Ammonia below 10.0 parts per million by volume, dry, corrected to 15% oxygen. Astoria Energy will control Ammonia emission through proper operation and control of the selective catalytic reduction (SCR). Control of the Ammonia feed rate will be based on the NOx and fuel flow. The Monitoring Frequency is continuous and the Reporting Requirement is quarterly.

Condition # 151 for 40 CFR 52.21(j), Subpart (A): This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Work Practice Involving Specific Operations for hours per year operation. Astoria Energy will burn distillate fuel as a backup fuel. The distillate fuel will have a sulfur limit of 0.033 % by weight until June 30, 2014, and 0.0015 % by weight thereafter, for up to 720 hours per year per turbine. The Monitoring Frequency is daily and the Reporting Requirement is quarterly.

Condition # 152 for 40 CFR 52.21(j), Subpart (A) for Sulfur Dioxide: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for Sulfur Dioxide. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfur Dioxide emission by conducting an Intermittent Emission Testing (stack testing) for Sulfur Dioxide once during the term of the permit and the



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

results to be submitted to NYSDEC thereafter. The Sulfur Dioxide mass emission rate from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 69.6 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 153 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 mass emission rate from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 57.7 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 154 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for Sulfuric Acid. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 21.9 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 155 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 0.04 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Condition # 156 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 0.04 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 157 for 40 CFR 52.21(j), Subpart (A) for Sulfuric Acid: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for Sulfuric Acid. This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Continuous Emission Monitoring (CEM) for Oxides of Nitrogen. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Sulfuric Acid emission by conducting an Intermittent Emission Testing (stack testing) for Sulfuric Acid once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Sulfuric Acid emission from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 0.0152 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.

Condition # 158 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level and process level condition that applies to EU: U-00001, EP: 00004 and Proc: P12. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates mass emission rate limit by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates mass emission rate from the turbines during distillate fuel oil firing in the gas turbines with natural gas duct burner is limited to 57.7 pounds per hour. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

Condition # 159 for 40 CFR 60.48c(a), NSPS Subpart Dc: This condition is an emission unit level condition that applies to EU: U-00002. This condition is for Recordkeeping/Maintenance Procedures for NSPS. This is a reporting and recordkeeping requirement of NSPS (New Source Performance Standards) for Emission Unit U-00002 (the diesel fire pump). This regulation requires the owner and operator of each affected facility to submit notification of the date of construction or reconstruction, anticipated startup, and actual startup of the facility. The notification must include: the design heat input capacity and identification of fuels to be combusted, if applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c, or 40 CFR 60.43c and the annual capacity factor at which the owner or operator anticipates operating based on all fuels fired and based on each individual fuel fired. The Monitoring Frequency is single occurrence and the reporting requirement is as required in the monitoring description (submit the notification of NSPS).

Condition # 160 for 6 NYCRR 231-2.7(b) for Oxides of Nitrogen: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00002, EP: 00005, Proc: P22 and ES:00DFP. This condition is for Intermittent Emission Testing for Oxides of Nitrogen. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Oxides of Nitrogen emission. Astoria Energy will show compliance with Oxides of Nitrogen emission by conducting an Intermittent Emission Testing (stack testing) for Oxides of Nitrogen once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Oxides of Nitrogen emission must be maintained below the 3.44 lb/mm Btu limit from the fire pump firing diesel fuel oil. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence. The stack test for Oxides of Nitrogen is an initial stack testing that will be performed only once during the life of this fire pump. The facility can be excused from performing this stack test only if the facility supplies NYSDEC with the make, model and the manufacturer's Oxides of Nitrogen emission guarantee for the fire pump that is acceptable to the department and will become part of this Title V permit.

Condition # 161 for 6 NYCRR 231-2.7(b) for Carbon Monoxide: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00002, EP: 00005, Proc: P22 and ES:00DFP. This condition is for Intermittent Emission Testing for Carbon Monoxide. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Carbon Monoxide emission. Astoria Energy will show compliance with Carbon Monoxide emission by



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014
Renewal Number: 3
10/11/2018

conducting an Intermittent Emission Testing (stack testing) for Carbon Monoxide once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Carbon Monoxide emission must be maintained below the 0.18 lb/mm Btu limit from the fire pump firing diesel fuel oil. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence. The stack test for Carbon Monoxide is an initial stack testing that will be performed only once during the life of this fire pump. The facility can be excused from performing this stack test only if the facility supplies NYSDEC with the make, model and the manufacturer's Carbon Monoxide emission guarantee for the fire pump that is acceptable to the department and will become part of this Title V permit.

Condition # 162 for 6 NYCRR 231-2.7(b) for VOC: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00002, EP: 00005, Proc: P22 and ES:00DFP. This condition is for Intermittent Emission Testing for VOC. The provisions of Subpart 231-2 apply to new or modified major facilities. Lowest Achievable Emission Rate (LAER) is required to control the Volatile Organic Compounds emission. Astoria Energy will show compliance with VOC emission by conducting an Intermittent Emission Testing (stack testing) for VOC once during the term of the permit and the results to be submitted to NYSDEC thereafter. The VOC emission must be maintained below the 0.11 lb/mm Btu limit from the fire pump firing diesel fuel oil. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence. The stack test for VOC is an initial stack testing that will be performed only once during the life of this fire pump. The facility can be excused from performing this stack test only if the facility supplies NYSDEC with the make, model and the manufacturer's VOC emission guarantee for the fire pump that is acceptable to the department and will become part of this Title V permit.

Condition # 163 for 40 CFR 52.21(j), Subpart (A) for PM-10: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00002, EP: 00005, Proc: P22 and ES:00DFP. This condition is for Intermittent Emission Testing for PM-10. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with PM-10 emission by conducting an Intermittent Emission Testing (stack testing) for PM-10 once during the term of the permit and the results to be submitted to NYSDEC thereafter. The PM-10 emission from the fire pump firing diesel fuel oil is limited to 0.06 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence. The stack test for PM-10 is an initial stack testing that will be performed only once during the life of this fire pump. The facility can be excused



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018

from performing this stack test only if the facility supplies NYSDEC with the make, model and the manufacturer's PM-10 emission guarantee for the fire pump that is acceptable to the department and will become part of this Title V permit.

Condition # 164 for 40 CFR 52.21(j), Subpart (A) for Particulates: This condition is an emission unit level, emission point level, process level and emission source level condition that applies to EU: U-00002, EP: 00005, Proc: P22 and ES:00DFP. This condition is for Intermittent Emission Testing for Particulates. Best Available Control Technology (BACT) is required for this facility. Astoria Energy will show compliance with Particulates emission by conducting an Intermittent Emission Testing (stack testing) for Particulates once during the term of the permit and the results to be submitted to NYSDEC thereafter. The Particulates emission from the fire pump firing diesel fuel oil is limited to 0.06 lb/mm Btu. The Monitoring Frequency is once during the term of the permit and the Reporting Requirement is once/batch or monitoring occurrence. The stack test for Particulates is an initial stack testing that will be performed only once during the life of this fire pump. The facility can be excused from performing this stack test only if the facility supplies NYSDEC with the make, model and the manufacturer's Particulates emission guarantee for the fire pump that is acceptable to the department and will become part of this Title V permit.

Condition # 168 for 6 NYCRR 242-1.5: This condition is a facility-wide condition for Record Keeping/Maintenance Procedures for the CO₂ budget. This condition 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.

Condition # 169 for 6 NYCRR 242-1.5: This condition is a facility-wide condition for Record Keeping/Maintenance Procedures for the CO₂ budget. This condition 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.



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 2-6301-00072/00014

Renewal Number: 3

10/11/2018