



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 2-6301-00072/00014  
Effective Date:

Expiration Date:

Permit Type: Title IV (Phase II Acid Rain)  
Permit ID: 2-6301-00072/00015  
Effective Date:

Expiration Date:

Permit Issued To: ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105

Contact: MICHAEL STOCKSTAD  
ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105-1097  
(718) 626-5711

Facility: ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105-1097

Contact: MICHAEL STOCKSTAD  
ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105-1097  
(718) 626-5711

Description:

**PERMIT DESCRIPTION**  
**Astoria Energy LLC & Astoria Energy II LLC**  
**DEC ID # 2-6301-00072/00014 ATV (Ren 3)**  
**DEC ID # 2-6301-00072/00015 AT4 (Ren 3)**

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 thereafter) 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 (Emission Source BOIL1) and four (4) GE Combustion Turbine units (Emission Sources 0T001, 0T002, 0T003 & 0T004) each rated at 2,047 MM Btu/hr (Emission Unit U-00001), each 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 Alstom Steam Turbine were constructed on August 1, 2004 and began natural gas commercial operation on natural gas on May 21, 2006 after successfully completing the required stack test on natural gas (Phase 1 of the project). The same two combustion turbines, Turbine 1 & Turbine 2 (Emission Sources 0T001 & 0T002) first fired low sulfur distillate oil on December 16 and December 19, 2006; respectively. The commissioning of low sulfur distillate oil was completed on January 22, 2010 for Combustion Turbine 1 and on January 21, 2010 for Combustion Turbine 2. The other two combustion turbines (Emission Sources 0T003 & 0T004), the single Steam Turbine, and the auxiliary boiler (Emission Source BOIL1) have completed construction (Phase 2 of the project) in March, 2011. Combustion Turbine 3 first fired on April 5, 2011, and its commercial operation began on April 11, 2011. Combustion Turbines 3 & 4 completed natural gas commissioning on June 19, 2011 and the low sulfur distillate oil commissioning was completed on June 27, 2011. The auxiliary boiler completed commissioning on June 16, 2011. Each turbine is equipped with a dry low NO<sub>x</sub> burner (Emission Controls 0DLN1, 0DLN2, 0DLN3 & 0DLN4). In order to reduce nitrogen oxides (NO<sub>x</sub>) 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<sub>x</sub> and fuel flow and in order to control the NO<sub>x</sub> 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<sub>x</sub>, 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 0.033 % by weight (until June 30, 2014 and 0.0015% by weight thereafter) 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<sub>x</sub>) 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<sub>x</sub>. 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 redesignated 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<sub>x</sub>, VOC and CO. The NO<sub>x</sub> 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<sub>x</sub> 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 (SO<sub>2</sub>) and sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) 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<sub>x</sub> emission and 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.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator:           STEPHEN A WATTS  
  47-40 21ST ST  
  LONG ISLAND CITY, NY 11101-5401

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

**Facility Level**

- Submission of application for permit modification or renewal -  
REGION 2 HEADQUARTERS



**DEC GENERAL CONDITIONS**

**\*\*\*\* General Provisions \*\*\*\***

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.**

**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

**Applicable State Requirement: ECL 3-0301 (2) (m)**

**Item 2.1:**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 3: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

**Item 3.3**

Permits are transferrable with the approval of the department unless specifically prohibited by



the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

**Condition 4: Permit modifications, suspensions or revocations by the Department**  
**Applicable State Requirement: 6 NYCRR 621.13**

**Item 4.1:**

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 5: Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS**  
**Applicable State Requirement: 6 NYCRR 621.6 (a)**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 2 Headquarters  
Division of Environmental Permits  
1 Hunters Point Plaza, 4740 21st Street  
Long Island City, NY 11101-5407  
(718) 482-4997



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105

Facility: ASTORIA ENERGY LLC & ASTORIA ENERGY II LLC  
17-10 STEINWAY ST  
ASTORIA, NY 11105-1097

Authorized Activity By Standard Industrial Classification Code:  
4911 - ELECTRIC SERVICES  
4939 - COMBINATION UTILITY SERVICES  
5171 - PETROLEUM BULK STATIONS & TERMINALS  
6512 - NONRESIDENTIAL BUILDING OPERATORS

Permit Effective Date:

Permit Expiration Date:



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires - Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 18 6 NYCRR 202-1.1: Required Emissions Tests
- 19 40 CFR Part 68: Accidental release provisions.
- 20 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 21 6 NYCRR Subpart 201-6: Steady state and fuel switching emission limit applicability.
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR Subpart 201-6: Compliance Certification
- 24 6 NYCRR Subpart 201-6: Compliance Certification
- 25 6 NYCRR Subpart 201-6: Compliance Certification
- 26 6 NYCRR Subpart 201-6: Compliance Certification
- 27 6 NYCRR Subpart 201-6: Compliance Certification
- 28 6 NYCRR Subpart 201-6: Compliance Certification
- 29 6 NYCRR Subpart 201-6: Compliance Certification
- 30 6 NYCRR Subpart 201-6: Compliance Certification
- 31 6 NYCRR Subpart 201-6: Compliance Certification
- 32 6 NYCRR Subpart 201-6: Compliance Certification
- 33 6 NYCRR Subpart 201-6: Compliance Certification
- 34 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 35 6 NYCRR 201-6.4 (f): Compliance Certification
- 36 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- 37 6 NYCRR 202-1.5: Prohibitions
- 38 6 NYCRR Subpart 202-2: Emission Statements
- 39 6 NYCRR Part 207: Submittal of Episode Action Plans
- 40 6 NYCRR 211.1: Air pollution prohibited
- 41 6 NYCRR 225-1.2 (g): Compliance Certification
- 42 6 NYCRR 225-1.2 (h): Compliance Certification



- 43 6 NYCRR 231-2.4: Notification and reporting requirements.
- 44 6 NYCRR 231-2.4: Emission offset requirements
- 45 40CFR 52.21(j), Subpart A: Compliance Certification
- 46 40CFR 60.4, NSPS Subpart A: EPA Region 2 address.
- 47 40CFR 60.7(a), NSPS Subpart A: Date of construction notification -  
If a COM is not used.
- 48 40CFR 60.7(b), NSPS Subpart A: Recordkeeping requirements.
- 49 40CFR 60.7(d), NSPS Subpart A: Excess emissions report.
- 50 40CFR 60.8(a), NSPS Subpart A: Performance testing timeline.
- 51 40CFR 60.8(b), NSPS Subpart A: Performance test methods.
- 52 40CFR 60.8(c), NSPS Subpart A: Required performance test information.
- 53 40CFR 60.8(d), NSPS Subpart A: Prior notice.
- 54 40CFR 60.8(e), NSPS Subpart A: Performance testing facilities.
- 55 40CFR 60.8(f), NSPS Subpart A: Number of required tests.
- 56 40CFR 60.9, NSPS Subpart A: Availability of information.
- 57 40CFR 60.11, NSPS Subpart A: Opacity standard compliance testing.
- 58 40CFR 60.12, NSPS Subpart A: Circumvention.
- 59 40CFR 60.13, NSPS Subpart A: Monitoring requirements.
- 60 40CFR 60.14, NSPS Subpart A: Modifications.
- 61 40CFR 60.15, NSPS Subpart A: Reconstruction
- 62 40 CFR Part 72: Facility Subject to Title IV Acid Rain Regulations  
and Permitting

**Emission Unit Level**

- 63 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 64 6 NYCRR Subpart 201-6: Process Definition By Emission Unit
- 65 6 NYCRR Subpart 201-7: Emission Unit Permissible Emissions
- 66 6 NYCRR Subpart 201-7: Process Permissible Emissions

**EU=U-00001**

- 67 6 NYCRR 231-2.5: Compliance Certification
- 68 6 NYCRR 231-2.5: Compliance Certification
- 69 6 NYCRR 231-2.5: Compliance Certification
- 70 6 NYCRR 231-2.6: Compliance Certification
- 71 6 NYCRR 231-2.6: Compliance Certification
- 72 6 NYCRR 231-2.6: Compliance Certification
- 73 6 NYCRR 231-2.9: Compliance Certification
- 74 40CFR 52.21, Subpart A: Compliance Certification
- 75 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Certification

**EU=U-00001,Proc=P10**

- 76 40CFR 60.44c(g), NSPS Subpart Dc: Alternate compliance methods for  
sulfur dioxide.

**EU=U-00001,EP=00004**

- 77 6 NYCRR 201-6.4 (b): Compliance Certification
- 78 6 NYCRR 201-6.4 (b): Compliance Certification
- 79 6 NYCRR 227-1.3 (a): Compliance Certification
- 80 40CFR 52.21, Subpart A: Compliance Certification
- 81 40CFR 52.21(j), Subpart A: Compliance Certification
- 82 40CFR 52.21(j), Subpart A: Compliance Certification
- 83 40CFR 60.47a(c), NSPS Subpart Da: Compliance Certification



**EU=U-00001,EP=00004,Proc=P01**

- 84 6 NYCRR 231-2.7 (b): Compliance Certification
- 85 6 NYCRR 231-2.7 (b): Compliance Certification
- 86 6 NYCRR 231-2.7 (b): Compliance Certification
- 87 6 NYCRR 231-2.7 (b): Compliance Certification
- 88 6 NYCRR 231-2.7 (b): Compliance Certification
- 89 6 NYCRR 231-2.7 (b): Compliance Certification
- 90 40CFR 52.21(j), Subpart A: Compliance Certification
- 91 40CFR 52.21(j), Subpart A: Compliance Certification
- 92 40CFR 52.21(j), Subpart A: Compliance Certification
- 93 40CFR 52.21(j), Subpart A: Compliance Certification
- 94 40CFR 52.21(j), Subpart A: Compliance Certification
- 95 40CFR 52.21(j), Subpart A: Compliance Certification
- 96 40CFR 52.21(j), Subpart A: Compliance Certification
- 97 40CFR 52.21(j), Subpart A: Compliance Certification
- 98 40CFR 60.334(b), NSPS Subpart GG: Compliance Certification

**EU=U-00001,EP=00004,Proc=P05,ES=BOIL1**

- 99 6 NYCRR 227-2.4 (c) (1) (ii): Compliance Certification
- 100 6 NYCRR 231-2.7 (b): Compliance Certification
- 101 6 NYCRR 231-2.7 (b): Compliance Certification
- 102 6 NYCRR 231-2.7 (b): Compliance Certification
- 103 6 NYCRR 231-2.7 (b): Compliance Certification
- 104 6 NYCRR 231-2.7 (b): Compliance Certification
- 105 6 NYCRR 231-2.7 (b): Compliance Certification
- 106 40CFR 52.21(j), Subpart A: Compliance Certification
- 107 40CFR 52.21(j), Subpart A: Compliance Certification
- 108 40CFR 52.21(j), Subpart A: Compliance Certification
- 109 40CFR 52.21(j), Subpart A: Compliance Certification
- 110 40CFR 52.21(j), Subpart A: Compliance Certification

**EU=U-00001,EP=00004,Proc=P10**

- \*111 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 112 6 NYCRR 231-2.7 (b): Compliance Certification
- 113 6 NYCRR 231-2.7 (b): Compliance Certification
- 114 6 NYCRR 231-2.7 (b): Compliance Certification
- 115 6 NYCRR 231-2.7 (b): Compliance Certification
- 116 6 NYCRR 231-2.7 (b): Compliance Certification
- 117 6 NYCRR 231-2.7 (b): Compliance Certification
- 118 40CFR 52.21(j), Subpart A: Compliance Certification
- 119 40CFR 52.21(j), Subpart A: Compliance Certification
- 120 40CFR 52.21(j), Subpart A: Compliance Certification
- 121 40CFR 52.21(j), Subpart A: Compliance Certification
- 122 40CFR 52.21(j), Subpart A: Compliance Certification
- 123 40CFR 52.21(j), Subpart A: Compliance Certification
- 124 40CFR 52.21(j), Subpart A: Compliance Certification
- 125 40CFR 52.21(j), Subpart A: Compliance Certification
- 126 40CFR 52.21(j), Subpart A: Compliance Certification
- 127 40CFR 52.21(j), Subpart A: Compliance Certification

**EU=U-00001,EP=00004,Proc=P11**



- 128 6 NYCRR 231-2.7 (b): Compliance Certification
- 129 6 NYCRR 231-2.7 (b): Compliance Certification
- 130 6 NYCRR 231-2.7 (b): Compliance Certification
- 131 6 NYCRR 231-2.7 (b): Compliance Certification
- 132 6 NYCRR 231-2.7 (b): Compliance Certification
- 133 6 NYCRR 231-2.7 (b): Compliance Certification
- 134 40CFR 52.21(j), Subpart A: Compliance Certification
- 135 40CFR 52.21(j), Subpart A: Compliance Certification
- 136 40CFR 52.21(j), Subpart A: Compliance Certification
- 137 40CFR 52.21(j), Subpart A: Compliance Certification
- 138 40CFR 52.21(j), Subpart A: Compliance Certification
- 139 40CFR 52.21(j), Subpart A: Compliance Certification
- 140 40CFR 52.21(j), Subpart A: Compliance Certification
- 141 40CFR 52.21(j), Subpart A: Compliance Certification

**EU=U-00001,EP=00004,Proc=P12**

- \*142 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 143 6 NYCRR 231-2.7 (b): Compliance Certification
- 144 6 NYCRR 231-2.7 (b): Compliance Certification
- 145 6 NYCRR 231-2.7 (b): Compliance Certification
- 146 6 NYCRR 231-2.7 (b): Compliance Certification
- 147 6 NYCRR 231-2.7 (b): Compliance Certification
- 148 6 NYCRR 231-2.7 (b): Compliance Certification
- 149 40CFR 52.21(j), Subpart A: Compliance Certification
- 150 40CFR 52.21(j), Subpart A: Compliance Certification
- 151 40CFR 52.21(j), Subpart A: Compliance Certification
- 152 40CFR 52.21(j), Subpart A: Compliance Certification
- 153 40CFR 52.21(j), Subpart A: Compliance Certification
- 154 40CFR 52.21(j), Subpart A: Compliance Certification
- 155 40CFR 52.21(j), Subpart A: Compliance Certification
- 156 40CFR 52.21(j), Subpart A: Compliance Certification
- 157 40CFR 52.21(j), Subpart A: Compliance Certification
- 158 40CFR 52.21(j), Subpart A: Compliance Certification

**EU=U-00002**

- 159 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Certification

**EU=U-00002,EP=00005,Proc=P22,ES=00DFP**

- 160 6 NYCRR 231-2.7 (b): Compliance Certification
- 161 6 NYCRR 231-2.7 (b): Compliance Certification
- 162 6 NYCRR 231-2.7 (b): Compliance Certification
- 163 40CFR 52.21(j), Subpart A: Compliance Certification
- 164 40CFR 52.21(j), Subpart A: Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 165 ECL 19-0301: Contaminant List
- 166 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 167 6 NYCRR 242-1.5: CO2 Budget Trading Program - Excess emission requirements
- 168 6 NYCRR 242-1.5: Compliance Demonstration
- 169 6 NYCRR 242-1.5: Compliance Demonstration



NOTE: \* preceding the condition number indicates capping.



**FEDERALLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.**

**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 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 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 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 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 201-6.4 (a) (9)**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item I: Permit Shield - 6 NYCRR 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 201-6.4 (i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of 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 the 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 section 201- 6.6 of this Subpart.

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

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

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

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

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit



is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item K: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item L: Federally Enforceable Requirements - 40 CFR 70.6 (b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.**

**Condition 1: Acceptable Ambient Air Quality  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 200.6**

**Item 1.1:**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where

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contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Condition 2: Fees**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (7)**

**Item 2.1:**

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

**Condition 3: Recordkeeping and Reporting of Compliance Monitoring**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c)**

**Item 3.1:**

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii)The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.

**Condition 4: Records of Monitoring, Sampling, and Measurement**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (2)**

**Item 4.1:**

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all



reports required by the permit.

**Condition 5: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (3) (ii)**

**Item 5.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 5.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements,



the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual



report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 6: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)**

**Item 6.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 6.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
  - the identification of each term or condition of the permit that is the basis of the certification;
  - the compliance status;
  - whether compliance was continuous or intermittent;
  - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related record keeping and reporting requirements of this permit;
  - such other facts as the Department may require to



determine the compliance status of the facility as specified in any special permit terms or conditions; and

- such additional requirements as may be specified elsewhere in this permit related to compliance certification.

ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.

iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.

iv. All annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

Chief – Stationary Source Compliance Section  
USEPA Region 2  
Air Compliance Branch  
290 Broadway  
New York, NY 10007-1866

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer  
Hunters Point Plaza  
47-40 21st Street  
Long Island City, NY 11101-5407

The address for the BQA is as follows:



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NYSDEC  
Bureau of Quality Assurance  
625 Broadway  
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2020.  
Subsequent reports are due on the same day each year

**Condition 7: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 202-2.1**

**Item 7.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 7.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due by April 15th for previous calendar year

**Condition 8: Recordkeeping requirements**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 202-2.5**

**Item 8.1:**

(a) The following records shall be maintained for at least five years:

(1) a copy of each emission statement submitted to the department; and

(2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

**Condition 9: Open Fires - Prohibitions**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 215.2**





**Item 9.1:**

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

**Item 9.2**

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**



**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.**

**[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]**

**Condition 10: Maintenance of Equipment**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 200.7**

**Item 10.1:**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

**Condition 11: Recycling and Salvage**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-1.7**

**Item 11.1:**

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

**Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-1.8**

**Item 12.1:**

No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

**Condition 13: Exempt Sources - Proof of Eligibility**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-3.2 (a)**

**Item 13.1:**

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

**Condition 14: Trivial Sources - Proof of Eligibility**



**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-3.3 (a)**

**Item 14.1:**

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

**Condition 15: Requirement to Provide Information**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (4)**

**Item 15.1:**

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

**Condition 16: Right to Inspect**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)**

**Item 16.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Off Permit Changes**



**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (f) (6)**

**Item 17.1:**

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.

**Condition 18: Required Emissions Tests  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 202-1.1**

**Item 18.1:**

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.

**Condition 19: Accidental release provisions.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40 CFR Part 68**

**Item 19.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;

b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:

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1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,

2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 20: Recycling and Emissions Reduction**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Item 20.1:**

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements for Title V permits only.**

**Condition 21: Steady state and fuel switching emission limit applicability.**

**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 21.1:The emission limits for NO<sub>x</sub>, CO, and NH<sub>3</sub> are monitored by continuous emissions monitors (CEMs), and apply only during periods of steady state operation of the turbines (exclusion of start-up, shutdown, and fuel switching events). The owner or operator is required to develop emission limits for these pollutants during periods of start-up, shutdown, and fuel switching for both natural gas and distillate oil firing modes of operation.**

**Condition 22: Emission Unit Definition**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 22.1:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-00001

Emission Unit Description:

Emission Unit U00001 represents four (4) identical GE



7421FA gas combustion turbines (Emission Sources 0T001, 0T002, 0T003 & 0T004), 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
- 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).

Building(s): TGB

**Item 22.2:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-00002

Emission Unit Description:

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

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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
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

Building(s): TGB

**Condition 23: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 23.1:**

The Compliance Certification activity will be performed for the facility:  
The Compliance Certification applies to:

Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN2





Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 23.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up after extended outage or combustion tuning event limits for NOx 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.

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<sub>x</sub> and CO, but not for NH<sub>3</sub> limitations since it is not a regulated pollutant.

START-UP - AFTER EXTENDED OUTAGE OR COMBUSTION TUNING  
EVENT: NO<sub>x</sub>: 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 NO<sub>x</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

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

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2100 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -

SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 24: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 24.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T002



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Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0T003

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0T004

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0WI01

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0WI02

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0WI03

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12                                      Emission Source: 0WI04

Regulated Contaminant(s):  
CAS No: 000630-08-0                      CARBON MONOXIDE

**Item 24.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), 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.

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**

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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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

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

Manufacturer Name/Model Number: CEMS

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 2400 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



**Condition 25: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 25.1:**

The Compliance Certification activity will be performed for the facility:  
The Compliance Certification applies to:

Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI01
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI02
Emission Unit: U-00001	Emission Point: 00004

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Process: P10

Emission Source: 0WI03

Emission Unit: U-00001

Emission Point: 00004

Process: P10

Emission Source: 0WI04

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 25.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), 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.

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 NOx and CO, but not for NH3 limitations since it is not a regulated pollutant.

START-UP - DISTILLATE OIL: CO: 2,000 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 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 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

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

Manufacturer Name/Model Number: CEMS  
 Parameter Monitored: CARBON MONOXIDE  
 Upper Permit Limit: 2000 pounds per event  
 Reference Test Method: 40 CFR Part 75  
 Monitoring Frequency: CONTINUOUS  
 Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
 SEE MONITORING DESCRIPTION  
 Reporting Requirements: QUARTERLY (CALENDAR)  
 Reports due 30 days after the reporting period.  
 Subsequent reports are due every 3 calendar month(s).

**Condition 26: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 26.1:**

The Compliance Certification activity will be performed for the facility:  
 The Compliance Certification applies to:

Emission Unit: U-00001	Emission Point: 00004
Process: P01	Emission Source: 00CO1
Emission Unit: U-00001	Emission Point: 00004
Process: P01	Emission Source: 00CO2



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Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001	Emission Point: 00004

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Process: P10	Emission Source: 0T004
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE



**Item 26.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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 limit for NO<sub>x</sub> and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), 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.

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<sub>x</sub> and CO, but not for NH<sub>3</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).



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After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

CO limit: 300 lbs/event for fuel transfer.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 300 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 27: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 27.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2

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Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO3

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Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE

**Item 27.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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<sub>x</sub> and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), 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.

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<sub>x</sub> and CO, but not for NH<sub>3</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

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These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

CO limit: 300 lbs/event for shutdown.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 300 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -

SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 28: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 28.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001	Emission Point: 00004



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Process: P01	Emission Source: 0SCR2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN3

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Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T004

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Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 28.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), Astoria Energy LLC & Astoria Energy II LLC is proposing the following fuel transfer limits for NOx 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.

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.

FUEL TRANSFER: NOx: 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 NOx 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is

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standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

NOx limit: 300 lbs/event for fuel transfer.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 300 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 29: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 29.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1

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Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE

**Item 29.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)



Monitoring Description:

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<sub>x</sub> and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), 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.

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<sub>x</sub> and CO, but not for NH<sub>3</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves



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Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

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

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 1500 pounds per event  
Reference Test Method: 40 CFR Part 75  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 30: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-6**

**Item 30.1:**

The Compliance Certification activity will be performed for the facility:  
The Compliance Certification applies to:

Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR3



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Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI01
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI02
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI03
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: 0WI04

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 30.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up distillate oil limits for NOx 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.





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<sub>x</sub> and CO, but not for NH<sub>3</sub> limitations since it is not a regulated pollutant.

#### START-UP - DISTILLATE OIL: NO<sub>x</sub>

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<sub>x</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

NO<sub>x</sub> limit: 2,000 lbs/event for distillate oil start-up.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 2000 pounds per event  
Reference Test Method: 40 CFR Part 75  
Monitoring Frequency: CONTINUOUS

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Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 31: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 31.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00CO4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001	Emission Point: 00004

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Process: P01	Emission Source: 0SCR1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 31.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), Astoria Energy LLC & Astoria Energy II LLC is proposing the following start-up natural gas limits for NOx 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.

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

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facility is submitting limitations for NO<sub>x</sub> and CO, but not for NH<sub>3</sub> limitations since it is not a regulated pollutant.

START-UP - NATURAL GAS: NO<sub>x</sub>: 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 operating in Mode 6Q plus 60 minutes, not to exceed 10 hours.

The emission limit of 1,500 pounds for total NO<sub>x</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.

These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

NO<sub>x</sub> limit: 1,500 lbs/event for natural gas start-up.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 1500 pounds per event  
Reference Test Method: 40 CFR Part 75  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.

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Subsequent reports are due every 3 calendar month(s).

**Condition 32: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 32.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 00DB4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: 0T002

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**Facility DEC ID: 2630100072**



Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: OT003
Emission Unit: U-00001 Process: P01	Emission Point: 00004 Emission Source: OT004
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OSCR1
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OSCR2
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OSCR3
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OSCR4
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OT001
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OT002
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OT003
Emission Unit: U-00001 Process: P10	Emission Point: 00004 Emission Source: OT004
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN3
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0DLN4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: OSCR1
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: OSCR2
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: OSCR3

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Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P11	Emission Point: 00004 Emission Source: 0T004
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR1
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR2
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR3
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0SCR4
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T001
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T002
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T003
Emission Unit: U-00001 Process: P12	Emission Point: 00004 Emission Source: 0T004

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 32.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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<sub>x</sub> and CO, and confirm that such established rates would not result in a violation of applicable NAAQS.

According to Condition # 34 for 6 NYCRR 201-6 (the paragraph above), Astoria Energy LLC & Astoria Energy II LLC is proposing the following shutdown limits for NO<sub>x</sub> 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.

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<sub>x</sub> and CO, but not for NH<sub>3</sub> limitations since it is not a regulated pollutant.

SHUTDOWN: NO<sub>x</sub>: 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<sub>x</sub> 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.

Mode 6Q is a GE Frame 7FA operating mode that indicates the combustion turbine unit has gotten into a steady-state operating condition (full load). It is the last mode as a combustion turbine unit comes up on MW load (this is standard for all Frame 7FA Combustion turbines).

After mode 6Q is achieved during start-up, the operators then begin to add ammonia, emission controls and balance out the auxiliary equipment in order to complete the start-up. This is similar on distillate oil start-ups, where water injection is modified after the unit achieves Mode 6Q operation to control emissions (as well as ammonia and balance of the facility).

Conversely, on a shutdown, the combustion turbine unit comes out of Mode 6Q on the downside.





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These combustion turbine units cannot achieve compliance when not running in Mode 6Q.

On a shutdown, the combustion turbine comes out of Mode 6Q on the downside.

NOx limit: 300 lbs/event for shutdown.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 300 pounds per event

Reference Test Method: 40 CFR Part 75

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 33: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-6**

**Item 33.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 33.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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 NOx and CO, 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.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 34: Progress Reports Due Semiannually  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (d) (4)**

**Item 34.1:**

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**Condition 35: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (f)**

**Item 35.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 35.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

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:

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1. NO<sub>x</sub> for NO<sub>x</sub> RACT (6 NYCRR 227-2).
2. NO<sub>x</sub>, VOC and CO for LAER/NSR (6 NYCRR 231-2.7(b)).
3. SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub>, and PM-a<sub>0</sub>/Particulates for BACT/PSD (40 CFR 52-A.21(j)).

Parameter Monitored: INLET LOADING

Lower Permit Limit: 40 percent

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 36: Facility Permissible Emissions  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 36.1:**

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 007446-09-5

PTE: 292,000 pounds per year

Name: SULFUR DIOXIDE

**Condition 37: Prohibitions  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 202-1.5**

**Item 37.1:**

No person shall conceal an emission by the use of air or other gaseous diluents to achieve compliance with an emission standard which is based on the concentration of a contaminant in the gases emitted through a stack.

**Condition 38: Emission Statements  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 202-2**

**Item 38.1:**

The provisions of 6NYCRR Subpart 202-2 apply to this facility.

**Condition 39: Submittal of Episode Action Plans**



**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Part 207**

**Item 39.1:**

An episode action plan must be submitted for approval by the Department in accordance with the requirements of 6NYCRR Part 207. The plan shall contain detailed steps which will be taken by the facility to reduce air contaminant emissions during each stage of an air pollution episode. Once approved, the facility shall take whatever actions are prescribed by the episode action plan when an air pollution episode is in effect.

**Condition 40: Air pollution prohibited**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 40.1:**

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

**Condition 41: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 225-1.2 (g)**

**Item 41.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 41.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis,



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within 30 days after the end of the semiannual period.  
All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 0.0015 percent by weight  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 42: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 225-1.2 (h)**

**Item 42.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 42.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL  
Parameter Monitored: SULFUR CONTENT  
Upper Permit Limit: 0.0015 percent by weight  
Monitoring Frequency: PER DELIVERY  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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**Condition 43: Notification and reporting requirements.  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.4**

**Item 43.1:**

At least sixty (60) days prior to the scheduled commence operation date of the proposed source project or proposed major facility, the permittee shall submit any changes to the list of offset sources included in this permit. For each such change, the applicant must submit another "Use of Emission Reduction Credits Form" signed by the applicant and an authorized representative of the new offset source.

**Item 43. 2:**

The facility shall submit to the NYSDEC Regional office a letter of confirmation that each future emission reduction, if any, used to provide emission offsets for this facility has physically occurred. This letter should be submitted, not less than 10 working days, prior to the facility's scheduled start-up date.

**Item 43.3:**

This permit shall be subject to revocation if construction is not commenced within 18 months from the date of issuance of such permit or if construction is discontinued for a period of 18 months or more (excluding any period of time that the permit is subject to challenge in State or Federal court), or if construction is not completed within a reasonable time acceptable to the Department.

**Condition 44: Emission offset requirements  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.4**

**Item 44.1:**

To satisfy the emission offset requirements of Part 231, the facility has obtained 425 tpy of NOx, 145 tpy of VOC and 145 tpy of CO Emission Reduction Credits (ERCs) from the following sources:

Facility Name	DEC ID	ERCs (tpy)
Con Ed. - Astoria	2-6301-00006	425 tpy of NOx
PG & E originally transferred from General Motors Corp.	3-5534-00104	145 tpy of VOC
Con Ed. - Astoria	2-6301-00006	145 tpy of CO

**Condition 45: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 45.1:**

The Compliance Certification activity will be performed for the Facility.

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Regulated Contaminant(s):

CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 45.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel in the turbines with up to 720 hours of distillate fuel oil as a backup. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the only fuel in the boiler. The sulfur content of the distillate fuel oil will be no more than 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.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: FUEL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.033 percent by weight

Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL CHANGE

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 46:      EPA Region 2 address.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4, NSPS Subpart A**

**Item 46.1:**

All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the following address:

Director, Division of Enforcement and Compliance Assistance  
USEPA Region 2  
290 Broadway, 21st Floor  
New York, NY 10007-1886

Copies of all correspondence to the administrator pursuant to this part shall also be submitted to the NYSDEC Regional Office issuing this permit (see address at the beginning of this permit) and to the following address:

NYSDEC  
Bureau of Quality Assurance



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625 Broadway  
Albany, NY 12233-3258

**Condition 47: Date of construction notification - If a COM is not used.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.7(a), NSPS Subpart A**

**Item 47.1:**

Any owner or operator subject to this part shall furnish the Administrator with the following information:

- 1) a notification of the date construction or reconstruction commenced, post marked no later than 30 days after such date;
- 3) a notification of the actual date of initial start up, post marked within 15 days after such date;
- 4) a notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless the change is specifically exempted under this part. The notice shall be post marked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capability of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional information regarding the change;
- 5) a notification of the date upon which the demonstration of continuous monitoring system performance commences, post marked not less than 30 days prior to such date;
- 6) a notification of the anticipated date for conducting the opacity observations, post marked not less than 30 days prior to such date.

**Condition 48: Recordkeeping requirements.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.7(b), NSPS Subpart A**

**Item 48.1:**

Affected owners or operators shall maintain records of occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

**Condition 49: Excess emissions report.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.7(d), NSPS Subpart A**

**Item 49.1:**

A summary report form, for each pollutant monitored, shall be sent to the Administrator in the form prescribed in Figure 1 of 40 CFR Part 60.7(d).





**Condition 50: Performance testing timeline.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(a), NSPS Subpart A**

**Item 50.1:**

Within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup of the facility, the owner or operator of the facility shall conduct performance testing and provide the results of such tests, in a written report, to the Administrator.

**Condition 51: Performance test methods.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(b), NSPS Subpart A**

**Item 51.1:**

Performance testing shall be conducted in accordance with the methods and procedures prescribed in 40 CFR 60 or by alternative methods and procedures approved by the Administrator.

**Condition 52: Required performance test information.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(c), NSPS Subpart A**

**Item 52.1:**

Performance tests shall be conducted under such conditions specified by the Administrator, based upon representative performance data supplied by the owner or operator of the facility.

**Condition 53: Prior notice.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(d), NSPS Subpart A**

**Item 53.1:**

The owner or operator shall provide the Administrator with prior notice of any performance test at least 30 days in advance of testing.

**Condition 54: Performance testing facilities.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(e), NSPS Subpart A**

**Item 54.1:**

The following performance testing facilities shall be provided during all tests:

- 1) sampling ports adequate for tests methods applicable to such facility;
- 2) a safe sampling platform;
- 3) a safe access to the sampling platform; and



4) utilities for sampling and testing equipment.

**Condition 55: Number of required tests.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.8(f), NSPS Subpart A**

**Item 55.1:**

Each performance test shall consist of three separate runs, at the specified duration required in the applicable test method. Compliance with all applicable standards shall be determined by using the arithmetic means of the results of the three runs.

**Condition 56: Availability of information.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.9, NSPS Subpart A**

**Item 56.1:**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by 40 CFR Part 2.

**Condition 57: Opacity standard compliance testing.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.11, NSPS Subpart A**

**Item 57.1:**

The following conditions shall be used to determine compliance with the opacity standards:

1) observations shall be conducted in accordance with Reference Method 9, in Appendix A of 40 CFR Part 60(or an equivalent method approved by the Administrator including continuous opacity monitors);

2) the opacity standards apply at all times except during periods of start up, shutdown, and malfunction; and

3) all other applicable conditions cited in section 60.11 of this part.

**Condition 58: Circumvention.  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.12, NSPS Subpart A**

**Item 58.1:**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

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**Condition 59: Monitoring requirements.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.13, NSPS Subpart A**

**Item 59.1:**

All continuous monitoring systems and devices shall be installed, calibrated, maintained, and operated in accordance with the requirements of section 60.13.

**Condition 60: Modifications.**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.14, NSPS Subpart A**

**Item 60.1:**

Within 180 days of the completion of any physical or operational change (as defined in section 60.14), compliance with the applicable standards must be achieved.

**Condition 61: Reconstruction**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.15, NSPS Subpart A**

**Item 61.1:**

The following shall be submitted to the Administrator prior to reconstruction (as defined in section 60.15):

- 1) a notice of intent to reconstruct 60 days prior to the action;
- 2) name and address of the owner or operator;
- 3) the location of the existing facility;
- 4) a brief description of the existing facility and the components to be replaced;
- 5) a description of the existing air pollution control equipment and the proposed air pollution control equipment;
- 6) an estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility;
- 7) the estimated life of the facility after the replacements; and
- 8) a discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

**Condition 62: Facility Subject to Title IV Acid Rain Regulations and Permitting**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40 CFR Part 72**



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**Item 62.1:** This facility is subject to the Title IV Acid Rain Regulations found in 40 CFR Parts 72, 73, 75, 76, 77 and 78. The Acid Rain Permit is an attachment to this permit.

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 63:** Emission Point Definition By Emission Unit  
Effective for entire length of Permit

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 63.1:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00001

Emission Point: 00004

Height (ft.): 269

Diameter (in.): 444

NYTMN (km.): 4514.853

NYTME (km.): 593.06

Building: TGB

**Item 63.2:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00002

Emission Point: 00005

Height (ft.): 50

Diameter (in.): 6

NYTMN (km.): 4514.767

NYTME (km.): 593.018

Building: TGB

**Condition 64:** Process Definition By Emission Unit  
Effective for entire length of Permit

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 64.1:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: P01

Source Classification Code: 2-01-002-01

Process Description:

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

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primary fuel and distillate fuel oil is the back-up fuel. For this process, dry low NO<sub>x</sub> burners (DLN) and selective catalytic reduction (SCR) are used to control NO<sub>x</sub> 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.

Emission Source/Control: 00DB1 - Combustion  
Design Capacity: 388 million Btu per hour

Emission Source/Control: 00DB2 - Combustion  
Design Capacity: 388 million Btu per hour

Emission Source/Control: 00DB3 - Combustion  
Design Capacity: 388 million Btu per hour

Emission Source/Control: 00DB4 - Combustion  
Design Capacity: 388 million Btu per hour

Emission Source/Control: 0T001 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T002 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T003 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T004 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 00CO1 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO2 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO3 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO4 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 0DLN1 - Control  
Control Type: LOW NO<sub>x</sub> BURNER

Emission Source/Control: 0DLN2 - Control

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Control Type: LOW NOx BURNER

Emission Source/Control: 0DLN3 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0DLN4 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0SCR1 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR2 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR3 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR4 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

**Item 64.2:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: P05

Source Classification Code: 1-02-006-04

Process Description:

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).

Emission Source/Control: BOIL1 - Combustion

Design Capacity: 36.5 million Btu per hour

**Item 64.3:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: P10

Source Classification Code: 2-01-001-01

Process Description:

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 NOx 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.

Emission Source/Control: 0T001 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T002 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T003 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T004 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 00CO1 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO2 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO3 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO4 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 0SCR1 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR2 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

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Emission Source/Control: 0SCR3 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR4 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0WI01 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI02 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI03 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI04 - Control  
Control Type: WATER INJECTION

**Item 64.4:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: P11

Source Classification Code: 2-01-001-01

Process Description:

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<sub>x</sub> burners (DLN) and selective catalytic reduction (SCR) are used to control NO<sub>x</sub> 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.

Emission Source/Control: 0T001 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T002 - Combustion



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Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T003 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T004 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 00CO1 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO2 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO3 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO4 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 0DLN1 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0DLN2 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0DLN3 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0DLN4 - Control  
Control Type: LOW NOx BURNER

Emission Source/Control: 0SCR1 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR2 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR3 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR4 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

**Item 64.5:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: P12

Source Classification Code: 2-01-001-01

Process Description:

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.

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 (DLN) and selective catalytic reduction (SCR) and water injection (WI) are used to control NOx emissions. 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.

Emission Source/Control: 0T001 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T002 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T003 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 0T004 - Combustion  
Design Capacity: 2,047.1 million Btu per hour

Emission Source/Control: 00CO1 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO2 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO3 - Control  
Control Type: CATALYTIC AFTERBURNER

Emission Source/Control: 00CO4 - Control  
Control Type: CATALYTIC AFTERBURNER

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Emission Source/Control: 0SCR1 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR2 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR3 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0SCR4 - Control  
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 0WI01 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI02 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI03 - Control  
Control Type: WATER INJECTION

Emission Source/Control: 0WI04 - Control  
Control Type: WATER INJECTION

**Item 64.6:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002  
Process: P22 Source Classification Code: 2-80-002-18  
Process Description:

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 Source/Control: 00DFP - Combustion  
Design Capacity: 300 horsepower (mechanical)

**Condition 65: Emission Unit Permissible Emissions Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 65.1:**

The sum of emissions from all regulated processes specified in this permit for the emission unit cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001

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CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 278.4 pounds per hour  
291,923 pounds per year

**Condition 66: Process Permissible Emissions  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 66.1:**

The sum of emissions from the regulated process cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-00001 Process: P01  
CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 12.4 pounds per hour  
21,278 pounds per year

Emission Unit: U-00001 Process: P10  
CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 278.4 pounds per hour  
200,448 pounds per year

Emission Unit: U-00001 Process: P11  
CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 11.1 pounds per hour  
97,236 pounds per year

Emission Unit: U-00001 Process: P12  
CAS No: 007446-09-5  
Name: SULFUR DIOXIDE  
PTE(s): 278.4 pounds per hour  
200,448 pounds per year

**Condition 67: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.5**

**Item 67.1:**

The Compliance Certification activity will be performed for:

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Emission Unit: U-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 67.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

LAER emission limit. Records for demonstration of compliance with the CO emission limit shall be maintained on site for five years. These records shall include i) mass emissions totaled over each 24-hour daily period (the total of hourly averages 12:00 midnight to the following midnight), and ii) the total mass emissions over a 365 day period beginning with the start-up of the facility. Any exceedances of the allowable annual CO emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 144 tons per year

Monitoring Frequency: CONTINUOUS

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 68: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.5**

**Item 68.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 68.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

LAER emission limit. Records for demonstration of compliance with the NOx emission limit shall be maintained on site for five years. These records shall include i) mass emissions totaled over each 24-hour daily period (the total of hourly averages 12:00 midnight to the following

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midnight), and ii) the total mass emissions over a 365 day period beginning with the start-up of the facility. Any exceedances of the allowable annual NOx emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 324 tons per year  
Monitoring Frequency: CONTINUOUS  
Averaging Method: ANNUAL MAXIMUM ROLLED DAILY  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 69: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.5**

**Item 69.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):  
CAS No: 0NY998-00-0 VOC

**Item 69.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

LAER emission limit. Records for demonstration of compliance with the VOC emission limit shall be maintained on site for five years. Any exceedances of the allowable annual VOC emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: VOC's

Upper Permit Limit: 108 tons per year

Monitoring Frequency: ANNUALLY

Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 12 calendar month(s).

**Condition 70: Compliance Certification**  
**Effective for entire length of Permit**

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**Applicable Federal Requirement:6 NYCRR 231-2.6**

**Item 70.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 70.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Records for demonstration of compliance with the CO emission limit shall be maintained on site for five years.

These records shall include i) mass emissions totaled over each 24-hour daily period (the total of hourly averages 12:00 midnight to the following midnight), and ii) the total mass emissions over a 365 day period beginning with the start-up of the facility. Any exceedance of the allowable annual CO emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 144 tons per year

Monitoring Frequency: CONTINUOUS

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 71: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.6**

**Item 71.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 71.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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Records for demonstration of compliance with the NOx emission limit shall be maintained on site for five years. These records shall include i) mass emissions totaled over each 24-hour daily period (the total of hourly averages 12:00 midnight to the following midnight), and ii) the total mass emissions over a 365 day period beginning with the start-up of the facility. Any exceedance of the allowable annual NOx emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 324 tons per year  
Monitoring Frequency: CONTINUOUS  
Averaging Method: ANNUAL MAXIMUM ROLLED DAILY  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 72: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.6**

**Item 72.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Regulated Contaminant(s):  
CAS No: 0NY998-00-0 VOC

**Item 72.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Records for demonstration of compliance with the VOC emission limit shall be maintained on site for five years. Any exceedance of the allowable annual VOC emission limitation must be reported in writing to the DEC Regional office within 10 working days of the exceedance.

Work Practice Type: PROCESS MATERIAL THRUPUT  
Process Material: VOC's  
Upper Permit Limit: 108 tons per year  
Monitoring Frequency: ANNUALLY  
Averaging Method: ARITHMETIC MEAN  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).



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**Condition 73: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.9**

**Item 73.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

**Item 73.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Use of Emission Reduction Credit:

Astoria Energy LLC has requested a VOC ERC transfer from PG & E Energy Trading- Power L.P. (PGET). Cantor Fitzgerald Brokerage L. P. is authorized to act on behalf of both PG & E Energy Trading-Power L. P. and SCS Energy/Astoria Energy LLC (Astoria Energy) in the processing of the VOC ERC transfer. PG & E Energy Trading (PGET) has transferred 145 tons per year (tpy) of VOC ERCs currently held by PGET to Astoria Energy. These VOC ERCs were originally created at General Motors Corporations's North Tarrytown Plant (Sleepy Hollow), New York facility (DEC ID # 3-5534-00104), and were subsequently transferred, but unused, to PGET. PGET, in turn, subsequently transferred the subject ERCs to Astoria Energy.

In addition to the 145 tpy of VOC ERCs that are being committed to Astoria Energy from PG & E (which were originally transferred from General Motors Corp (DEC ID # 3-5534-00104)), 425 tpy of NOx ERCs have been committed to Astoria Energy from Con Ed. - Astoria, DEC ID # 2-6301-00006 and 145 tpy of CO ERCs have been committed to Astoria Energy from Con Ed. - Astoria, DEC ID # 2-6301-00006.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 74: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21, Subpart A**

**Item 74.1:**

The Compliance Certification activity will be performed for:

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Emission Unit: U-00001

**Item 74.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Permittee shall submit a quarterly written CEM report to NYSDEC for every calendar year quarter. All quarterly reports shall be post marked by the 30th day following the end of each calendar quarter and shall include:

1. CEMS down time (40 CFR 60.7(b)) and excess emissions (40 CFR 60.7(c)) in a summary report format, as found in 40 CFR 60.7(d), or equivalent.
2. The results of the quarterly monitoring performance audit, reported in the format of 40 CFR 60 Appendix F (or equivalent).
3. Excess emissions shall be identified as any one-hour block period during which the average emissions of CO, or any three-hour block period during which the average emission on NOx, as measured by the CEM system, exceeds the corresponding mass or concentration emission limits set forth in this permit.
4. For the purposes of this permit, excess emissions indicated by the CEM system for the appropriate block periods other than start-ups and shutdowns, malfunctions (as stated in 6NYCRR Subpart 201-1.4) emergency, fuel switching, equipment cleaning and CEM calibrations may be considered violations of the applicable emission limits.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 75: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.48c(a), NSPS Subpart Dc**

**Item 75.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

**Item 75.2:**



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Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) 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.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 76: Alternat compliance methods for sulfur dioxide. Effective for entire length of Permit

Applicable Federal Requirement:40CFR 60.44c(g), NSPS Subpart Dc

Item 76.1:

This Condition applies to Emission Unit: U-00001 Process: P10

Item 76.2:

Oil fired facilities demonstrating compliance with the sulfur dioxide standard through sampling and analysis must test every shipment of oil after the initial approval or follow an approved custom schedule.

The facility will use commercially available distillate fuel oil (very low sulfur, 0.033 percent by weight). The permit limits for the sulfur content of the oil are much less than the current legal limits for sale of this product in the New York City area. It is therefore proposed that the oil monitoring plan be amended to require only one sulfur test per barge shipment delivered to the power plant. The oil supplier will provide the required distillate oil analysis (per barge shipment).

Condition 77: Compliance Certification Effective for entire length of Permit



**Applicable Federal Requirement:6 NYCRR 201-6.4 (b)**

**Item 77.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

**Item 77.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The gas turbine will not operate below 50% load, except during startup/shutdown, combustion tuning and emergency conditions.

Astoria Energy LLC & Astoria Energy II LLC generating configuration consists of Phase 1 and Phase 2, each include two combustion turbines and HRSGs that produce steam to a single steam turbine generator (commonly referred as 2x1 Operation). A condition may arise in which the combustion turbine operation has been staggered. Therefore, in order to properly synchronize the steam turbine generator, or match steam turbine temperature requirements, a reduction of unit load on the combustion turbine may be required. During this situation, unit operation could be reduced to less than 50% Load in order to properly bring up the generation of the 2x1 configuration.

Monitoring Frequency: CONTINUOUS

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 78: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (b)**

**Item 78.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

**Item 78.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



The gas turbine will only fire natural gas and distillate oil.

Monitoring Frequency: CONTINUOUS  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 79: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 227-1.3 (a)**

**Item 79.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

**Item 79.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No owner or operator of a combustion installation shall emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test method 9 in Appendix A of 40 CFR 60.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 80: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21, Subpart A**

**Item 80.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

**Item 80.2:**

Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

In accordance with the requirements set forth in 40 CFR 60.334 and 60.335, Astoria Energy LLC & Astoria Energy II LLC are not required to analyze its natural gas and distillate fuel for nitrogen and sulfur content daily in accordance with 60.334(h)(3) provided that the gaseous fuel combusted in the turbine is demonstrated to meet the definition of natural gas in 60.331(u). The demonstration will be by definition of the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less. Astoria Energy LLC & Astoria Energy II LLC are proposing a custom schedule for testing the sulfur content and limiting the distillate oil sulfur content to 0.033 percent by weight until June 30, 2014, and 0.0015 percent by weight thereafter. Therefore, once the alternative monitoring plan is approved by USEPA, it will be attached to the permit.

GAS MONITORING:

It is anticipated that natural gas will be delivered to the facility via the New York Facility System. Sulfur analysis from the New York Facility System are available and will be provided to EPA upon request, a copy of the valid purchase contract, tariff sheet, or transportation contract specifying the gas quality characteristics will be kept on site at all times.

In the event that natural gas is provided from a system other than the New York Facility System, the gas quality characteristics of the alternate natural gas source will be kept on site with a copy of the alternate valid purchase contract, tariff sheet or transportation contract and EPA will be notified.

The facility incorporates a continuous emissions monitoring system (CEMS) and meets very strict nitrogen oxides (NO<sub>x</sub>) limits. As such, it is proposed that the facility not be required to test for fuel nitrogen content due to continuous stack compliance already in place.

The New York Facility System will provide the natural gas analysis referred to above. In the event that the New York Facility System is unable to provide analysis, the facility will pull a sample and have it analyzed. Please also see related Condition # 98.

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



**OIL MONITORING:**

The facility will use commercially available distillate fuel oil (very low sulfur, 0.033 percent by weight until June 30, 2014, and 0.0015 percent by weight thereafter). The permit limits for the sulfur content of the oil are much less than the current legal limits for sale of this product in the New York City area. It is therefore proposed that the oil monitoring plan be amended to require only one sulfur test per barge shipment into the oil terminal for the oil delivered to the facility. The oil supplier will provide the required distillate oil analysis (per barge shipment). Please also see related Conditions 42, 45 & 151.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 81: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 81.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 81.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

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

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL



**New York State Department of Environmental Conservation**

**Permit ID: 2-6301-00072/00014**

**Facility DEC ID: 2630100072**

Parameter Monitored: PARTICULATES  
Upper Permit Limit: 582,000 pounds per year  
Reference Test Method: PART 60, APP A, M 5  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL TOTAL ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

**Condition 82: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 82.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10

**Item 82.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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 LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: NUMBER 2 OIL

Parameter Monitored: PM-10

Upper Permit Limit: 582,000 pounds per year

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 12 calendar month(s).

**Condition 83: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.47a(c), NSPS Subpart Da**



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



**Item 83.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 83.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC has installed, calibrated, maintained, and operates a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.

Astoria Energy LLC & Astoria Energy II LLC will use a continuous emissions monitoring system (CEMS) to measure NOx concentration in pounds per million Btus at Emission Point 00004 and Emission Unit U-00001 (from the combustion turbines and the auxiliary boiler).

Manufacturer Name/Model Number: CEMS

Upper Permit Limit: 0.20 pounds per million Btus

Reference Test Method: 40 CFR 60 App A, Method 7

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 84: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 84.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P01

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 84.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING



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**Permit ID: 2-6301-00072/00014**

**Facility DEC ID: 2630100072**

**Monitoring Description:**

0.003 lb/MM BTU of VOC emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for VOC is 40 CFR part 60, Appendix A, method 18 (for Methane) and method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.003 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 85: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 85.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P01

Regulated Contaminant(s):

CAS No: 000630-08-0

CARBON MONOXIDE

**Item 85.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

1.5 ppm of CO emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel.

Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 1.5 parts per million by volume  
(dry, corrected to 15% O2)

Reference Test Method: PT 60 APP B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).



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Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

**Condition 86: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 86.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 86.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

2.0 ppm of NOx emission limit during natural gas firing  
in the gas turbine with duct firing based upon high  
heating value (HHV) of fuel. Astoria Energy LLC & Astoria  
Energy II LLC will use CEMS to monitor NOx emission at the  
stack. LAER is required.

Manufacturer Name/Model Number: CEM  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 2.0 parts per million by volume  
(dry, corrected to 15% O2)

Reference Test Method: Part 60, App B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 87: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 87.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 0NY998-00-0      VOC

**Item 87.2:**

Compliance Certification shall include the following monitoring:

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Permit ID: 2-6301-00072/00014

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Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

5.92 lbs/hr of VOC emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for VOC is 40 CFR part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 5.92 pounds per hour

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 88: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 88.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P01

Regulated Contaminant(s):

CAS No: 000630-08-0

CARBON MONOXIDE

**Item 88.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

7.77 lbs/hr of CO emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Astoria Energy LLC & Astoria Energy II LLC shall, within one year following the commencement of commercial operation, analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NOx and CO. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of

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applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 7.77 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 89: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 89.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 89.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

17.0 lbs/hr of NOx emission limit during natural gas firing in the gas turbine with duct firing based upon high heating value (HHV) of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NOx emission at the stack. LAER is required.

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Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching events and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub> and CO. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 17.0 pounds per hour  
Reference Test Method: Part 60, App B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 90: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 90.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 007664-93-9                      SULFURIC ACID

**Item 90.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:  
0.001 lb/MM BTU emission limit of Sulfuric Acid for the



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

gas turbine with duct burner firing natural gas. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.001 pounds per million Btus

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 91: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 91.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P01

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 91.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0098 lb/MM BTU of Particulates emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.0098 pounds per million Btus

Reference Test Method: 40 CFR PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

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Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



**Condition 92: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 92.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10

**Item 92.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0098 lb/MM BTU of PM-10 emission limit during natural gas firing in the gas turbine with duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel with distillate fuel oil as a backup fuel. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10

Upper Permit Limit: 0.0098 pounds per million Btus

Reference Test Method: 40 CFR App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 93: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 93.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 007664-41-7      AMMONIA

**Item 93.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)



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Permit ID: 2-6301-00072/00014

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**Monitoring Description:**

15.7 lb/hr of Ammonia emission limit during natural gas firing in the turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC 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. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NH3 emission in the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching events and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NOx and CO. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: AMMONIA  
Upper Permit Limit: 15.7 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 94: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 94.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004



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Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Process: P01

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

**Item 94.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

18.0 lb/hr of PM-10 emission limit during natural gas firing in the gas turbine with duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel with distillate fuel oil as a backup fuel. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10

Upper Permit Limit: 18.0 pounds per hour

Reference Test Method: 40 CFR 60, App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 95: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 95.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P01

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 95.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

18.0 lbs/hr of Particulates emission limit during natural gas firing in the gas turbine with duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC &



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Permit ID: 2-6301-00072/00014

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Astoria Energy II LLC will demonstrate compliance with  
Particulates emission by stack testing.

Parameter Monitored: PARTICULATES  
Upper Permit Limit: 18.0 pounds per hour  
Reference Test Method: PART 60, APP A, M 5  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 96: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 96.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P01

Regulated Contaminant(s):  
CAS No: 007664-93-9                      SULFURIC ACID

**Item 96.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

2.37 lbs/hr emission limit of Sulfuric Acid for the gas turbine with duct burner firing natural gas. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing.

Parameter Monitored: SULFURIC ACID  
Upper Permit Limit: 2.37 pounds per hour  
Reference Test Method: Part 60, App A, M 8  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 97: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 97.1:**

The Compliance Certification activity will be performed for:



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Emission Unit: U-00001  
Process: P01

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007664-41-7      AMMONIA

**Item 97.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: AMMONIA

Upper Permit Limit: 5.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: PT 60 APP B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 98: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.334(b), NSPS Subpart GG**

**Item 98.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P01

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 98.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor the sulfur content and the nitrogen content of the fuel being fired in the turbine. Owners, operators, or fuel



vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with the requirements of this Section. If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that the fuel is transferred to the storage tank from any other source. In accordance with the custom fuel monitoring schedule established by the USEPA in a letter to Indeck dated 12/19/91, fuel suppliers may be different for each purchase. The oil may not be used at the facility for an extended period of time once delivered to the site, therefore, monitoring would be made for each batch delivered to the site. Each batch may include multiple truck deliveries. If more than one batch is involved, multiple samples would be taken. In addition to monitoring the nitrogen content of the fuel, the facility utilizes a Continuous Emissions Monitoring System (CEMS) to monitor NOx emissions from the gas turbine/Heat Recovery Steam Generator System.

On November 18, 1988, due to a BACT determination required under 40CFR52.21, a limit of 0.3% sulfur by weight was established for fuel utilized at any combustion source at the facility. That limit supersedes the 0.8% sulfur by weight limit required under 40CFR60 Subpart GG.

Astoria Energy LLC & Astoria Energy II LLC are proposing a custom schedule for testing the natural gas Sulfur content. The EPA approved alternative monitoring plan shall be attached to the permit.

Parameter Monitored: SULFUR  
Upper Permit Limit: 20 grains  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 99: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 227-2.4 (c) (1) (ii)**

**Item 99.1:**  
The Compliance Certification activity will be performed for:

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



Emission Unit: U-00001  
Process: P05

Emission Point: 00004  
Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0    OXIDES OF NITROGEN

**Item 99.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC is required to perform testing the mid-size boiler, the 36.5 MM Btu/hr NEBRASKA Model NB-200D-50 boiler (Emission Source BOIL1) to verify the NO<sub>x</sub> emission limit compliance. A mid-size boiler is a boiler with a maximum heat input capacity greater than 25 million Btu per hour and equal to or less than 100 million Btu per hour. This boiler operates on natural gas (Process P05) only.

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<sub>x</sub> per million Btus under the NO<sub>x</sub> RACT plan for mid-size boilers.

Emission test requirements: The owner/operator of a source required to conduct an emission test under subdivision (c) of 6 NYCRR 227-2.6 must:

1. Submit a compliance test protocol to the Department for approval at least 30 days prior to emission testing. The conditions of the testing and the locations of the sampling devices must be acceptable to the Department; and
2. Utilize procedures set forth in 40 CFR Part 60, Appendix A or any other method acceptable to the Department and EPA for determining compliance with the appropriate NO<sub>x</sub> limit in section 227-2.4 of this Subpart, and must follow the procedures set forth in Part 202 of this Title.
  - i. For mid-size boilers (> 25 and equal to or <100 MM Btu/hr) boilers, utilize Method 7, 7E, or 19 from 40 CFR Part 60, Appendix A or another reference method approved by the Department.
3. Submit a compliance test report containing the results of the emission test to the Department no later than 60 days after the completion of the emission test.



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

This condition applies to the mid-size boiler, the 36.5 MM Btu/hr NEBRASKA Model NB-200D-50 boiler (Emission Source BOIL1) to verify the NOx emission limit compliance.

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 0.05 pounds per million Btus  
Reference Test Method: 40 CFR Part 60, Appendix A, Method 7, 7E or 19  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 100: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 100.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P05                                      Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 100.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1.09 lb/hr of NOx emission limit during natural gas firing in the auxiliary boiler based upon high heating value (HHV) of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with NOx emission by stack testing. LAER is required.

Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 1.09 pounds per hour  
Reference Test Method: PART 60 APP A, M 7E  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 101: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 101.1:**



**New York State Department of Environmental Conservation**

**Permit ID: 2-6301-00072/00014**

**Facility DEC ID: 2630100072**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 101.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.020 lb/MM BTU of CO emission limit during natural gas firing in the auxiliary boiler based on HHV of fuel.

Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with CO emission by stack testing. LAER is required.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 0.020 pounds per million Btus

Reference Test Method: PT 60 APP A, M 10

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 102: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 102.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 102.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.20 lb/hrof VOC emission limit during natural gas firing in the auxiliary boiler based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for VOC is 40





**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.20 pounds per hour

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 103: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 103.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 103.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.011 lb/MM BTU of NO<sub>x</sub> emission limit during natural gas firing in the auxiliary boiler based upon high heating value (HHV) of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with NO<sub>x</sub> emission by stack testing. LAER is required.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.011 pounds per million Btus

Reference Test Method: PART 60 APP A, M 7E

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 104: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 104.1:**



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**Permit ID: 2-6301-00072/00014**

**Facility DEC ID: 2630100072**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P05                                      Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 000630-08-0              CARBON MONOXIDE

**Item 104.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

1.98 lb/hr of CO emission limit during natural gas firing in the auxiliary boiler based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with CO emission by stack testing. LAER is required.

Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 1.98 pounds per hour  
Reference Test Method: PT 60 APP A, M 10  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 105: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 105.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P05                                      Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 0NY998-00-0              VOC

**Item 105.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.002 lb/MM BTU of VOC emission limit during natural gas firing in the auxiliary boiler based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.002 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 106: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 106.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

**Item 106.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The auxiliary boiler will not operate below 50 % load, except during startup and shutdown.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 107: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 107.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 107.2:**

Compliance Certification shall include the following monitoring:

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Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.005 lb/MM BTU of Particulates emission limit during natural gas firing in the auxiliary boiler based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.005 pounds per million Btus

Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 108: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 108.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P05

Emission Source: BOIL1

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

**Item 108.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.005 lb/MM BTU of PM-10 emission limit during natural gas firing in auxiliary boiler based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10

Upper Permit Limit: 0.005 pounds per million Btus

Reference Test Method: APP A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 109: Compliance Certification**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 109.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P05                                      Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10

**Item 109.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.495 lb/hr of PM-10 emission limit during natural gas firing in auxiliary boiler based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10  
Upper Permit Limit: 0.495 pounds per hour  
Reference Test Method: APP A, M 201A & 202  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 110: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 110.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P05                                      Emission Source: BOIL1

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 110.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.495 lb/hr of Particulates emission limit during natural gas firing in the auxiliary boiler based upon HHV

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of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn only natural gas in the boiler. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.495 pounds per hour

Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 111: Capping Monitoring Condition**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR Subpart 201-7**

**Item 111.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40 CFR 52.21 (j)

**Item 111.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 111.3:**

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.

**Item 111.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 111.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 111.6:**

The Compliance Certification activity will be performed for:



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Emission Unit: U-00001  
Process: P10

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 111.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Total annual distillate fuel use shall not exceed 41.6448 million gallons per year within any consecutive 365 day period for the gas turbines.

The low-sulfur distillate oil will have a maximum of 0.033 % by weight sulfur until June 30, 2014, and 0.0015% by weight sulfur thereafter) as a back up fuel for the gas turbines.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: FUEL

Upper Permit Limit: 41.6448 million gallons

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 112: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 112.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P10

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 0NY998-00-0      VOC

**Item 112.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.007 lb/MM BTU of VOC emission limit during distillate oil firing in the gas turbine based on HHV of fuel. This

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emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.007 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 113: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 113.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P10

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 113.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

6.0 ppm of NOx emission limit during distillate oil firing in the turbine based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NOx emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN





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Facility DEC ID: 2630100072

Upper Permit Limit: 6.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: Part 60, App B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 114: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 114.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P10

Regulated Contaminant(s):

CAS No: 000630-08-0

CARBON MONOXIDE

**Item 114.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

4.0 ppm of CO emission limit during distillate oil firing in gas turbine based on HHV of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 4.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: PT 60 APP B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 115: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



**Item 115.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 000630-08-0      CARBON MONOXIDE

**Item 115.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

19.7 lbs/hr of CO emission limit during distillate oil firing in gas turbine based on HHV of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 19.7 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.



Subsequent reports are due every 3 calendar month(s).

**Condition 116: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 116.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 116.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

48.5 lbs/hr of NO<sub>x</sub> emission limit during distillate oil firing in the turbine based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NO<sub>x</sub> emission at the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.



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Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 48.5 pounds per hour  
Reference Test Method: Part 60, APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 117: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 117.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 0NY998-00-0      VOC

**Item 117.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

14.1 lbs/hr of VOC emission limit during distillate oil firing in the gas turbine based on HHV of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC  
Upper Permit Limit: 14.1 pounds per hour  
Reference Test Method: APP A, M 18 & 25A  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE



**Condition 118: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 118.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001 Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 007664-41-7 AMMONIA

**Item 118.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

29.8 lb/hr of Ammonia emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Ammonia emission by stack testing.

Astoria Energy LLC & Astoria Energy II LLC will control Ammonia emission to 29.8 lbs/hr through proper operation and control of the Selective Catalytic Reduction (SCR). Control of the Ammonia feed rate will be based on the NO<sub>x</sub> and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning



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distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: AMMONIA  
Upper Permit Limit: 29.8 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 119: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 119.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 007664-41-7                      AMMONIA

**Item 119.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: AMMONIA  
Upper Permit Limit: 10.0 parts per million by volume  
(dry, corrected to 15% O2)  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)



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Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 120: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 120.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10

**Item 120.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

57.7 lb/hr of PM-10 emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PM-10

Upper Permit Limit: 57.7 pounds per hour

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 121: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 121.1:**

The Compliance Certification activity will be performed for:



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Emission Unit: U-00001  
Process: P10

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 0NY075-00-0    PARTICULATES

**Item 121.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

57.7 lb/hr of Particulates emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 57.7 pounds per hour

Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 122:    Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 122.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P10

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007446-09-5    SULFUR DIOXIDE

**Item 122.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:





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69.6 lb/hr limit of Sulfur Dioxide for the turbine firing distillate fuel oil. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfur Dioxide emission by stack testing. The stack testing is required once during the term of the permit. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 69.6 pounds per hour

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 123: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 123.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P10

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

**Item 123.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.04 lb/MM BTU of PM-10 emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold



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is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PM-10  
Upper Permit Limit: 0.04 pounds per million Btus  
Reference Test Method: App A, M 201A & 202  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 124: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 124.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 007664-93-9                      SULFURIC ACID

**Item 124.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0152 lb/MM BTU limit of Sulfuric Acid for the turbine firing distillate fuel oil. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFURIC ACID  
Upper Permit Limit: 0.0152 pounds per million Btus  
Reference Test Method: Part 60, App A, M 8  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 125: Compliance Certification**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 125.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001 Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 125.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.04 lb/MM BTU Particulates emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PARTICULATES  
Upper Permit Limit: 0.04 pounds per million Btus  
Reference Test Method: PART 60, APP A, M 5  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 126: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 126.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001 Emission Point: 00004  
Process: P10

Regulated Contaminant(s):  
CAS No: 007664-93-9 SULFURIC ACID

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**Item 126.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

21.9 lb/hr limit of Sulfuric Acid for the turbine firing distillate fuel oil. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 21.9 pounds per hour

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 127: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 127.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P10

**Item 127.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as a primary fuel and distillate fuel oil as a backup fuel (which has a limit of 0.033 % by weight Sulfur content until June 30, 2014, and 0.0015% by weight Sulfur content thereafter) for up to 720 hours per year per turbine.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 720 hours

Monitoring Frequency: DAILY



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Averaging Method: ANNUAL MAXIMUM ROLLED DAILY  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 128: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 128.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 128.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

15.6 lbs/hr of NOx emission limit during natural gas firing in the gas turbine without duct firing based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NOx emission at the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NOx, CO, and NH3. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days

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of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 15.6 pounds per hour  
Reference Test Method: Part 60, App B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 129: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 129.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 000630-08-0                      CARBON MONOXIDE

**Item 129.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)  
Monitoring Description:

7.15 lbs/hr of CO emission limit during natural gas firing in the gas turbine without duct firing based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC use CEMS to monitor CO emission in the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial



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operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 7.15 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 130: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 130.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY998-00-0      VOC

**Item 130.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

5.43 lbs/hr of VOC emission limit during natural gas firing in the gas turbine without duct firing based on HHV of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Upper Permit Limit: 5.43 pounds per hour  
Reference Test Method: APP A, M 18 & 25A  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT



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Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 131: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 131.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P11

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 131.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.003 lb/MM BTU of VOC emission limit during natural gas firing in the gas turbine without duct firing based on HHV of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.003 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 132: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6 NYCRR 231-2.7 (b)**

**Item 132.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P11



New York State Department of Environmental Conservation

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 132.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

2.0 ppm of NOx emission limit during natural gas firing in the gas turbine without duct firing based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NOx emission at the stack. LAER is required.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 2.0 parts per million by volume  
(dry, corrected to 15% O2)

Reference Test Method: Part 60, App B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 133: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 133.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P11

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 133.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

1.5 ppm of CO emission limit during natural gas firing in the gas turbine without duct firing based on HHV of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4.

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 1.5 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 134: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 134.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 134.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

12.9 lb/hr of Particulates emission limit during natural gas firing in the gas turbine without duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing.

Parameter Monitored: PARTICULATES  
Upper Permit Limit: 12.9 pounds per hour  
Reference Test Method: PART 60, APP A, M 5  
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 135: Compliance Certification**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 135.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001 Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY075-00-5 PM-10

**Item 135.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

12.9 lb/hr of PM-10 emission limit during natural gas firing in the gas turbine without duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10

Upper Permit Limit: 12.9 pounds per hour

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 136: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 136.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001 Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 007664-93-9 SULFURIC ACID

**Item 136.2:**

Compliance Certification shall include the following monitoring:



**New York State Department of Environmental Conservation**

**Permit ID: 2-6301-00072/00014**

**Facility DEC ID: 2630100072**

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.90 lbs/hr of Sulfuric Acid emission limit when the turbine is firing natural gas and is without duct firing. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.90 pounds per hour

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 137: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 137.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 137.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0098 lb/MM BTU of Particulates emission limit during natural gas firing in the gas turbine without duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.0098 pounds per million Btus

Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 138: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 138.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10

**Item 138.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0098 lb/MM BTU of PM-10 emission limit during natural gas firing in the gas turbine without duct firing based upon HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing.

Parameter Monitored: PM-10

Upper Permit Limit: 0.0098 pounds per million Btus

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 139: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 139.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P11

Regulated Contaminant(s):

New York State Department of Environmental Conservation

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



CAS No: 007664-41-7 AMMONIA

**Item 139.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NOx, CO, and NH3. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: AMMONIA

Upper Permit Limit: 14.1 pounds per hour

Reference Test Method: PT 60 APP B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 140: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 140.1:**

The Compliance Certification activity will be performed for:



**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Emission Unit: U-00001  
Process: P11

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007664-41-7 AMMONIA

**Item 140.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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<sub>x</sub> and fuel flow.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: AMMONIA

Upper Permit Limit: 5.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: PT 60 APP B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 141: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 141.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P11

Emission Point: 00004

Regulated Contaminant(s):  
CAS No: 007664-93-9 SULFURIC ACID

**Item 141.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.001 lb/MM BTU of Sulfuric Acid emission limit when the turbine is firing natural gas and is without duct firing. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4.



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Permit ID: 2-6301-00072/00014

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Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.001 pounds per million Btus

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 142: Capping Monitoring Condition  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-7**

**Item 142.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40 CFR 52.21 (j)

**Item 142.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 142.3:**

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.

**Item 142.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 142.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 142.6:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004





**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072

Process: P12

Regulated Contaminant(s):

CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 142.7:**

Compliance Certification shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Total annual distillate fuel use shall not exceed 41.6448 million gallons per year within any consecutive 365 day period for the gas turbines.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: FUEL

Upper Permit Limit: 41.6448 million gallons

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 143: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 143.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 000630-08-0      CARBON MONOXIDE

**Item 143.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

19.7 lbs/hr of CO emission limit during distillate oil firing with natural gas duct firing in gas turbine based on HHV of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

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Permit ID: 2-6301-00072/00014

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Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 19.7 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 144: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 144.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 0NY998-00-0      VOC

**Item 144.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:



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Facility DEC ID: 2630100072

0.007 lb/MM BTU of VOC emission limit during distillate oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 0.007 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 145: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 145.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 145.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

14.1 lbs/hr of VOC emission limit during distillate oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with VOC emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720

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hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average. LAER is required.

Parameter Monitored: VOC

Upper Permit Limit: 14.1 pounds per hour

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 146: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 146.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 146.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

6.0 ppm of NO<sub>x</sub> emission limit during distillate oil firing with natural gas duct firing in the turbine based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NO<sub>x</sub> emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 6.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)

Reference Test Method: Part 60, App B & F

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.



Subsequent reports are due every 3 calendar month(s).

**Condition 147: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 147.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 147.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

48.5 lbs/hr of NO<sub>x</sub> emission limit during distillate oil firing with natural gas duct firing in the turbine based upon high heating value (HHV) of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor NO<sub>x</sub> emission at the stack. LAER is required.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.



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Permit ID: 2-6301-00072/00014

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Manufacturer Name/Model Number: CEMS  
Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 48.5 pounds per hour  
Reference Test Method: Part 60, APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 148: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 148.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 000630-08-0                      CARBON MONOXIDE

**Item 148.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

4.0 ppm of CO emission limit during distillate oil firing with natural gas duct firing in gas turbine based on HHV of fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will use CEMS to monitor CO emission in the stack. LAER is required.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: CARBON MONOXIDE  
Upper Permit Limit: 4.0 parts per million by volume  
(dry, corrected to 15% O<sub>2</sub>)  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 1-HOUR AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 149: Compliance Certification**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 149.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 007664-41-7                      AMMONIA

**Item 149.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

29.8 lb/hr of Ammonia emission limit during distillate fuel oil firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, excluding start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Ammonia emission by stack testing.

Astoria Energy LLC & Astoria Energy II LLC will control Ammonia emission to 29.8 lbs/hr through proper operation and control of the Selective Catalytic Reduction (SCR). Control of the Ammonia feed rate will be based on the NO<sub>x</sub> and fuel flow. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4.

Following the commencement of commercial operation, Astoria Energy LLC & Astoria Energy II LLC shall analyze data obtained from start-up/shutdown and fuel switching and shall submit a permit modification to establish enforceable combustion turbine start-up and shutdown emission rates for NO<sub>x</sub>, CO, and NH<sub>3</sub>. Astoria Energy LLC & Astoria Energy II LLC shall confirm that such established rates would not result in a violation of applicable NAAQS. The application for permit modification shall be submitted within 120 days of completion of one year of commercial operation when firing natural gas, and/or within 120 days of completion of 15-start-up/shutdown events when burning distillate fuel oil. If 15 such events with oil firing are not completed within the first year of commercial operation, the analysis of data and submission of the permit modification to establish enforceable emission



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rates with oil firing and/or fuel switching, and to confirm that such emission rates will not result in a violation of applicable NAAQS, shall occur within 120 days of completion of the final (fifteenth) start-up/shutdown event with oil firing.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: AMMONIA  
Upper Permit Limit: 29.8 pounds per hour  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 150: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 150.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 007664-41-7                      AMMONIA

**Item 150.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC 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.

Manufacturer Name/Model Number: CEMS  
Parameter Monitored: AMMONIA  
Upper Permit Limit: 10.0 parts per million by volume  
(dry, corrected to 15% O2)  
Reference Test Method: PT 60 APP B & F  
Monitoring Frequency: CONTINUOUS  
Averaging Method: 3-HOUR BLOCK AVERAGE  
Reporting Requirements: QUARTERLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 3 calendar month(s).

**Condition 151: Compliance Certification**



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**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 151.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P12

Emission Point: 00004

**Item 151.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as a primary fuel and distillate fuel oil as a backup fuel (which has a limit of 0.033 % by weight Sulfur content until June 30, 2014, and 0.0015 % by weight thereafter) for up to 720 hours per year per turbine.

Work Practice Type: HOURS PER YEAR OPERATION

Upper Permit Limit: 720 hours

Monitoring Frequency: DAILY

Averaging Method: ANNUAL MAXIMUM ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 3 calendar month(s).

**Condition 152: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 152.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001  
Process: P12

Emission Point: 00004

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

**Item 152.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

69.6 lb/hr limit of Sulfur Dioxide for the turbine firing distillate fuel oil with natural gas duct firing. This emission limit applies at all times, including



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start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfur Dioxide emission by stack testing. The stack testing is required once during the term of the permit. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 69.6 pounds per hour

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 153: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 153.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

**Item 153.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

57.7 lb/hr of PM-10 emission limit during distillate fuel oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the

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end of the following calendar year.

Parameter Monitored: PM-10

Upper Permit Limit: 57.7 pounds per hour

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 154: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 154.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

**Item 154.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

21.9 lb/hr limit of Sulfuric Acid for the turbine firing distillate fuel oil with natural gas duct firing. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 21.9 pounds per hour

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 155: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

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**Item 155.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 0NY075-00-0      PARTICULATES

**Item 155.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.04 lb/MM BTU Particulates emission limit during distillate fuel oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.04 pounds per million Btus

Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 156:      Compliance Certification  
                            Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 52.21(j), Subpart A**

**Item 156.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001                      Emission Point: 00004  
Process: P12

Regulated Contaminant(s):  
CAS No: 0NY075-00-5      PM-10



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**Item 156.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.04 lb/MM BTU of PM-10 emission limit during distillate fuel oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with PM-10 emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PM-10

Upper Permit Limit: 0.04 pounds per million Btus

Reference Test Method: App A, M 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 157: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 157.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 007664-93-9

SULFURIC ACID

**Item 157.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.0152 lb/MM BTU limit of Sulfuric Acid for the turbine firing distillate fuel oil with natural gas duct firing. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4.

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Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Sulfuric Acid emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: SULFURIC ACID

Upper Permit Limit: 0.0152 pounds per million Btus

Reference Test Method: Part 60, App A, M 8

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 158: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 158.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00001

Emission Point: 00004

Process: P12

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 158.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

57.7 lb/hr of Particulates emission limit during distillate fuel oil firing with natural gas duct firing in the gas turbine based on HHV of fuel. Astoria Energy LLC & Astoria Energy II LLC will burn natural gas as the primary fuel with distillate fuel oil as a backup fuel. This emission limit applies at all times, including start-up/shutdown, equipment maintenance, malfunctions and upsets as per the requirements of 6 NYCRR 201-1.4. Astoria Energy LLC & Astoria Energy II LLC will demonstrate compliance with Particulates emission by stack testing. Stack testing on ULSD will be performed when the average unit threshold exceeds 50% of the hourly limit of 720 hours which is 360 hours per turbine. If the threshold is exceeded, stack testing on ULSD will be performed by the end of the following calendar year.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 57.7 pounds per hour



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Reference Test Method: PART 60, APP A, M 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 159: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40 CFR 60.48c(a), NSPS Subpart Dc**

**Item 159.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

**Item 159.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) 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.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 160: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 160.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00005



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Process: P22

Emission Source: 00DFP

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 160.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

3.44 lb/MM BTU of NO<sub>x</sub> emission limit during fuel oil firing in the diesel fire pump based upon high heating value (HHV) of fuel.

The stack testing for Oxides of Nitrogen is an initial stack testing that will be performed only once during the life of this fire pump. This facility can be excused from performing this stack test only if this facility supplies NYSDEC with the make, model and the manufacture'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.

As part of the Title V renewal that was received on November 14, 2006, the facility has supplied the Department with the following information for the fire pump (Emission Source 00DFP):

Make: Clarke

Model: JW6H-UF40

NO<sub>x</sub> emission guarantee: 1.35 lbs/MMBtu, 2.72 lbs/hr, 4.11 g/bhp-hr

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 3.44 pounds per million Btus

Reference Test Method: PT60, APP A, M7E

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 161: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6 NYCRR 231-2.7 (b)**

**Item 161.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00005

Process: P22

Emission Source: 00DFP

Regulated Contaminant(s):





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CAS No: 000630-08-0 CARBON MONOXIDE

Item 161.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.18 lb/MM BTU of CO emission limit during oil firing in the diesel fire pump based on HHV of fuel.

The stack testing for Carbon Monoxide is an initial stack testing that will be performed only once during the life of this fire pump. This facility can be excused from performing this stack test only if this facility supplies NYSDEC with the make, model and the manufacture's Carbon Monoxide emission guarantee for the fire pump that is acceptable to the Department and will become part of this Title V permit.

As part of the Title V renewal that was received on November 14, 2006, the facility has supplied the Department with the following information for the fire pump (Emission Source 00DFP):

Make: Clarke
Model: JW6H-UF40
CO emission guarantee: 0.13 lbs/MMBtu, 0.27 lbs/hr, 0.41 g/bhp-hr

Parameter Monitored: CARBON MONOXIDE
Upper Permit Limit: 0.18 pounds per million Btus
Reference Test Method: PT 60, APP A, M10
Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 162: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 231-2.7 (b)

Item 162.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002 Emission Point: 00005
Process: P22 Emission Source: 00DFP

Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC

Item 162.2:

Compliance Certification shall include the following monitoring:

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Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.11 lb/MM BTU of VOC emission limit during oil firing in the diesel fire pump based on HHV of fuel. The reference test method for VOC is 40 CFR Part 60, Appendix A, Method 18 (for Methane) and Method 25A (for total). The averaging method is for the reference test method is 1-hour average.

The stack testing for VOC is an initial stack testing that will be performed only once during the life of this fire pump. This facility can be excused from performing this stack test only if this facility supplies NYSDEC with the make, model and the manufacture's VOC emission guarantee for the fire pump that is acceptable to the Department and will become part of this Title V permit.

As part of the Title V renewal that was received on November 14, 2006, the facility has supplied the Department with the following information for the fire pump (Emission Source 00DFP):

Make: Clarke  
Model: JW6H-UF40  
VOC emission guarrantee: 0.11 lbs/MMBtu, 0.222 lbs/hr

Parameter Monitored: VOC

Upper Permit Limit: 0.11 pounds per million Btus

Reference Test Method: APP A, M 18 & 25A

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 163: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 163.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00005

Process: P22

Emission Source: 00DFP

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

**Item 163.2:**

Compliance Certification shall include the following monitoring:

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Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.06 lb/MM BTU of PM-10 emission limit during fuel oil firing in the diesel fire pump based upon HHV of fuel.

The stack testing for PM-10 is an initial stack testing that will be performed only once during the life of this fire pump. This facility can be excused from performing this stack test only if this facility supplies NYSDEC with the make, model and the manufacture's PM-10 emission guarantee for the fire pump that is acceptable to the Department and will become part of this Title V permit.

As part of the Title V renewal that was received on November 14, 2006, the facility has supplied the Department with the following information for the fire pump (Emission Source 00DFP):

Make: Clarke  
Model: JW6H-UF40  
PM-10 emission guarantee: 0.05 lbs/MMBtu, 0.11 lbs/hr, 0.16 g/bhp-hr

Parameter Monitored: PM-10

Upper Permit Limit: 0.06 pounds per million Btus

Reference Test Method: METHOD 201A & 202

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 164: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 52.21(j), Subpart A**

**Item 164.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Emission Point: 00005

Process: P22

Emission Source: 00DFP

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 164.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

0.06 lb/MM BTU of Particulates emission limit during

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fuel oil firing in the diesel fire pump based upon HHV of fuel.

The stack testing for Particulates is an initial stack testing that will be performed only once during the life of this fire pump. This facility can be excused from performing this stack test only if this facility supplies NYSDEC with the make, model and the manufacture's Particulates emission guarantee for the fire pump that is acceptable to the Department and will become part of this Title V permit.

As part of the Title V renewal that was received on November 14, 2006, the facility has supplied the Department with the following information for the fire pump (Emission Source 00DFP):

Make: Clarke

Model: JW6H-UF40

Particulates emission guarrantee: 0.05 lbs/MMBtu,  
0.11 lbs/hr, 0.16 g/bhp-hr

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.06 pounds per million Btus

Reference Test Method: PT 60, APP A, M5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE



**STATE ONLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Emergency Defense - 6 NYCRR 201-1.5**

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;

(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item 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.

**STATE ONLY APPLICABLE REQUIREMENTS**

**The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 165: Contaminant List**  
**Effective for entire length of Permit**

**Applicable State Requirement:ECL 19-0301**

**Item 165.1:**

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000630-08-0  
Name: CARBON MONOXIDE

CAS No: 007446-09-5  
Name: SULFUR DIOXIDE

CAS No: 007664-41-7  
Name: AMMONIA

CAS No: 007664-93-9  
Name: SULFURIC ACID

CAS No: 0NY075-00-0  
Name: PARTICULATES

CAS No: 0NY075-00-5  
Name: PM-10

CAS No: 0NY210-00-0  
Name: OXIDES OF NITROGEN

**New York State Department of Environmental Conservation**

Permit ID: 2-6301-00072/00014

Facility DEC ID: 2630100072



CAS No: 0NY998-00-0

Name: VOC

**Condition 166: Malfunctions and start-up/shutdown activities  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 166.1:**

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

**Condition 167: CO2 Budget Trading Program - Excess emission requirements  
Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 242-1.5**



**Item 167.1:**

The owners and operators of a CO<sub>2</sub> budget source that has excess emissions in any control period shall:

- (1) forfeit the CO<sub>2</sub> allowances required for deduction under 6 NYCRR Part 242-6.5(d)(1), provided CO<sub>2</sub> offset allowances may not be used to cover any part of such excess emissions; and
- (2) pay any fine, penalty, or assessment or comply with any other remedy imposed under 6 NYCRR Part 242-6.5(d)(2).

**Condition 168: Compliance Demonstration  
Effective for entire length of Permit**

**Applicable State Requirement: 6 NYCRR 242-1.5**

**Item 168.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 168.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owners and operators and, to the extent applicable, the CO<sub>2</sub> authorized account representative of each CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall comply with the monitoring requirements of Subpart 242-8. The emissions measurements recorded and reported in accordance with Subpart 242-8 of this Part shall be used to determine compliance by the unit with the following CO<sub>2</sub> requirements:

- (1) The owners and operators of each CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall hold CO<sub>2</sub> allowances available for compliance deductions under Section 242-6.5, as of the CO<sub>2</sub> allowance transfer deadline, in the source's compliance account in an amount not less than the total CO<sub>2</sub> emissions for the control period from all CO<sub>2</sub> budget units at the source, as determined in accordance with Subparts 242-6 and 242-8.
- (2) Each ton of CO<sub>2</sub> emitted in excess of the CO<sub>2</sub> budget emissions limitation shall constitute a separate violation of this Part and applicable state law.
- (3) A CO<sub>2</sub> budget unit shall be subject to the requirements specified in item 1 starting on the later, of January 1, 2009 or the date on which the unit commences operation.
- (4) CO<sub>2</sub> allowances shall be held in, deducted from, or transferred among CO<sub>2</sub> Allowance Tracking System accounts in accordance with Subparts 242-5, 242-6, and 242-7, and





Section 242-10.7.

(5) A CO<sub>2</sub> allowance shall not be deducted, in order to comply with the requirements specified in item 1, for a control period that ends prior to the allocation year for which the CO<sub>2</sub> allowance was allocated. A CO<sub>2</sub> offset allowance shall not be deducted, in order to comply with the requirements under item 1, beyond the applicable percent limitations set out in 6NYCRR Part 242-6.5(a)(3).

(6) A CO<sub>2</sub> allowance under the CO<sub>2</sub> Budget Trading Program is a limited authorization by the Department or a participating state to emit one ton of CO<sub>2</sub> in accordance with the CO<sub>2</sub> Budget Trading Program. No provision of the CO<sub>2</sub> Budget Trading Program, the CO<sub>2</sub> budget permit application, or the CO<sub>2</sub> budget permit or any provision of law shall be construed to limit the authority of the Department or a participating state to terminate or limit such authorization.

(7) A CO<sub>2</sub> allowance under the CO<sub>2</sub> Budget Trading Program does not constitute a property right.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 169: Compliance Demonstration**  
**Effective for entire length of Permit**

**Applicable State Requirement:6 NYCRR 242-1.5**

**Item 169.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 169.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owners and operators of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall keep on site at the source each of the following documents for a period of 10 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 10 years, in writing by the department.

(i) The account certificate of representation for the CO<sub>2</sub> authorized account representative for the source and each



CO2 budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 6 NYCRR Part 242-2.4, provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation.

(ii) All emissions monitoring information, in accordance with Subpart 242-8 and 40 CFR 75.57.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO2 Budget Trading Program.

(iv) Copies of all documents used to complete a CO2 budget permit application and any other submission under the CO2 Budget Trading Program or to demonstrate compliance with the requirements of the CO2 Budget Trading Program.

The CO2 authorized account representative of a CO2 budget source and each CO2 budget unit at the source shall submit the reports and compliance certifications required under the CO2 Budget Trading Program, including those under Subpart 242-4.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

