Notice of Appeal

This form is used to file an appeal of an order, notice, decision, determination, or ruling by the Allegheny County Health Department. Please complete this form (use additional pages as necessary). If more than one person or entity is filing this appeal, please attach a separate form for each additional appellant. **A copy of the order, notice, decision, determination, or ruling must be attached to the Notice of Appeal.**

Name Clean Air Council

Mailing Address 135 South 19th Street, Suite 300

City Philadelphia State PA Zip 19103 Email joe_minott@cleanair.org

Phone (215) 567-4004 x 118 Fax (optional)

If you are represented by an attorney, please provide contact information for your attorney:

Name Lisa W. Hallowell, Esq., Environmental Integrity Project

Mailing Address 1000 Vermont Ave. NW, Suite 1100

City Washington State DC Zip 20005 Email Lhallowell@environmentalintegrity.org

Phone (202) 294-3282 Fax (optional)

Describe your objections to the Department's actions and a statement describing the relief you want the Hearing Officer to grant. (*The objections may be factual or legal and must be specific. If you fail to state an objection here, you may be barred from raising it later in your appeal. Use additional pages if necessary.*)

Please see attached Objections to the Department's Actions.

By filing this Notice of Appeal with the Allegheny County Health Department, I hereby certify that the information submitted is true and correct to the best of my information and belief.

Signature Lisa Hallowell Date 11/4/2021

Appeals should be submitted in person or by mail to:

Allegheny County Health Department
Attention: Hearing Officer
542 4th Avenue
Pittsburgh, PA 15219

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Name Citizens for Pennsylvania's Future ("PennFuture")

Mailing Address 200 First Avenue, Suite 200

City Pittsburgh State PA Zip 15222 Email kilbert@pennfuture.org

Phone (412) 456-2785 Fax (optional)

If you are represented by an attorney, please provide contact information for your attorney:

Name Lisa W. Hallowell, Esq., Environmental Integrity Project

Mailing Address 1000 Vermont Ave. NW, Suite 1100

City Washington State DC Zip 20005 Email Lhallowell@environmentalintegrity.org

Phone (202) 294-3282 Fax (optional)

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Name Mountain Watershed Association

Mailing Address 1414-B Indian Creek Valley Road, P.O. Box 408

City Melcroft State PA Zip 15462 Email melissa@mtwatershed.com

Phone (724) 455-4200, ext. 7# Fax (optional)

If you are represented by an attorney, please provide contact information for your attorney:

Name Lisa W. Hallowell, Esq., Environmental Integrity Project

Mailing Address 1000 Vermont Ave. NW, Suite 1100

City Washington State DC Zip 20005 Email Lhallowell@environmentalintegrity.org

Phone (202) 294-3282 Fax (optional)

Describe your objections to the Department's actions and a statement describing the relief you want the Hearing Officer to grant. (*The objections may be factual or legal and must be specific. If you fail to state an objection here, you may be barred from raising it later in your appeal. Use additional pages if necessary.*)

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Signature Lisa Hallowell Date 11/4/2021

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Allegheny County Health Department
Attention: Hearing Officer
542 4th Avenue
Pittsburgh, PA 15219

Objections to the Department's Actions

Describe your objections to the Department's actions and a statement describing the relief you want the Hearing Officer to grant. (*The objections may be factual or legal and must be specific. If you fail to state an objection here, you may be barred from raising it later in your appeal. Use additional pages if necessary.*)

Introduction

Appellants are challenging the Allegheny County Health Department's October 5, 2021 issuance of an Installation Permit No. 0959-I001 for a new gas-fired power plant, the Invenergy Allegheny Energy Center, located in Elizabeth Township, Allegheny County. The proposed facility would be 639 megawatts and a major source of air pollution. Appellants, Clean Air Council, Citizens for Pennsylvania's Future ("PennFuture"), and Mountain Watershed Association, all timely submitted comments on the draft installation permit and are aggrieved by the issuance of this permit.

Objections

A. The Installation Permit unreasonably contains an erroneous and unreasonable ammonia slip emissions limit of 4 ppmv at 15% O_2, which is twice as high as the ammonia slip limit in recently issued permits at similar, larger plants.

B. The Installation Permit's limits on startup, shutdown, and malfunction events are unreasonable, unenforceable, and lack sufficient monitoring and testing requirements to ensure enforceability or verify emissions.

C. The Department failed to properly analyze alternatives as required by 25 Pa. Code § 127.205(5) to determine if the benefits of this project significantly outweigh its environmental and social costs, and the Department failed to meet the substantive requirements of that section, especially in light of the environmental justice concerns already experienced by area residents.

D. Invenergy did not provide, and the Department failed to require, an adequate additional impacts analysis under 40 C.F.R. §§ 51.166(o) and 52.21(o), especially given the cumulative impacts to nearby environmental justice communities.

E. The Department improperly permitted the facility despite Invenergy's violations at its similar Lackawanna Energy Center and its demonstrated inability or unwillingness to comply with the air pollution control laws, contrary to, among other provisions, § 2102.03(i).

F. Appellants reserve the right to challenge Allegheny Energy Center's acquisition of emissions reductions credits ("ERCs") from an unlawful source under 25 Pa. Code § 127.208.

G. The Installation Permit is otherwise unsupported by fact, contrary to law, arbitrary, capricious, unreasonable, and/or an abuse of discretion.

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H. The Department violated the environmental rights of Appellants and other members of the public, as established in Article I, Section 27 of the Pennsylvania Constitution, by issuing the Installation Permit despite the immense levels of deleterious pollution the construction and operation of the facility would generate.

I. The Department violated its trustee duties as established in Article I, Section 27 of the Pennsylvania Constitution by permitting AEC to significantly degrade the natural environment.

J. Appellants reserve the right to amend this Notice of Appeal to include additional objections that may arise during further investigations and discovery in this matter.

Relief Requested

Appellants request that the Hearing Officer rescind this permit and provide any other relief that the Hearing Officer deems appropriate.

Attachment

A copy of ACHD's Issuance of ACHD Permit#: 0959-I001, New Source Review (NSR)/Prevention of Significant Deterioration (PSD) Installation Permit for Allegheny Energy Center LLC is attached to this Notice of Appeal.

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SIGNATURE PAGE

By filing this Notice of Appeal with the Allegheny County Health Department, I hereby certify that the information submitted is true and correct to the best of my information and belief. Additionally, I certify that a copy of this Notice of Appeal was served upon each of the individuals indicated on the Certificate of Service on November 4, 2021.

Lisa W. Hallowell
PA Bar Id. No. 207983
Environmental Integrity Project
1000 Vermont Ave. NW, Suite 1100
Washington, DC 20005
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On behalf of Appellants Clean Air Council, PennFuture, and Mountain Watershed Association

Joseph Otis Minott, Esq.
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On behalf of Appellant Clean Air Council

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PennFuture
200 First Avenue, Suite 200
Pittsburgh, PA 15222
(412) 456-2785
kilbert@pennfuture.org

On behalf of Appellant PennFuture

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CERTIFICATE OF SERVICE

I, Lisa W. Hallowell, counsel for Appellants Clean Air Council, Citizens for Pennsylvania's Future ("PennFuture"), and Mountain Watershed Association, do hereby certify that I served a true and correct copy of the attached Notice of Appeal on each of the following:

Via electronic mail

Max Slater, Esq.
Administrative Hearing Officer
Allegheny County Health Department
542 Fourth Avenue
Pittsburgh, PA 15219
max.slater@alleghenycounty.us

Jeff Bailey
Assistant Solicitor
Allegheny County Health Department
Legal Section
301 39th Street, Bldg. 7
Pittsburgh, PA 15201-1811
Jeff.Bailey@AlleghenyCounty.US

Via Electronic Mail and Certified Mail

Adam M. Taylor
Director – Project Development
Allegheny Energy Center LLC
2130 Margaret St. Ext.
West Newton, PA, 15089
ataylor@invenergyllc.com

Date: November 4, 2021

Lisa W. Hallowell, Esq.

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Attached Permit

AIR QUALITY PROGRAM
301 39th Street, Bldg. #7
Pittsburgh, PA 15201-1811

New Source Review (NSR)/Prevention of Significant Deterioration (PSD) INSTALLATION PERMIT

Issued To:	**Allegheny Energy Center LLC** 2130 Margaret St. Ext. West Newton, PA 15089	**ACHD Permit#:**	**0959-I001**
		Date of Issuance:	October 5, 2021
		Expiration Date:	(See Section III.12)

Issued By: Digitally signed by JoAnn Truchan, PE Date: 2021.10.05 10:54:35 -04'00'

JoAnn Truchan, P.E.
Section Chief, Engineering

Prepared By: Bernadette Lipari Digitally signed by Bernadette Lipari Date: 2021.10.05 10:34:04 -04'00'

Bernadette Lipari
Air Quality Engineer

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DATE	*SECTION(S)*

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I. CONTACT INFORMATION

Facility Location:	**Allegheny Energy Center LLC (AEC)** 2130 Margaret St. Ext. West Newton, PA, 15089
Permittee/Owner:	**Allegheny Energy Center LLC (AEC)** 1 South Wacker Drive, Suite 1800 Chicago, IL 60606
Permittee/Operator: **(if not Owner)**	**same as above**
Responsible Official:	**Dan Ewan**
Title:	Vice President
Company:	**Invenergy LLC**
Address:	1 South Wacker Drive, Suite 1800 Chicago, IL 60606
Telephone Number:	(312) 582-1421
Fax Number:	(312) 224-1444
Facility Contact:	**Adam M. Taylor**
Title:	Director – Project Development
Telephone Number:	(312) 429-2562
Fax Number:	(312) 224-1444
E-mail Address:	**ataylor@invenergyllc.com**

AGENCY ADDRESSES:

ACHD Contact:	**Chief Engineer** **Allegheny County Health Department** Air Quality Program 301 39th Street, Building #7 Pittsburgh, PA 15201-1811
EPA Contact:	**Enforcement Programs Section (3AP12)** **USEPA Region III** 1650 Arch Street Philadelphia, PA 19103-2029

DRAFT

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II. FACILITY DESCRIPTION

FACILITY DESCRIPTION

Invenergy plans to construct, own, and operate the Allegheny Energy Center (AEC), a 639 megawatt (MW), natural gas-fired combined-cycle power plant Elizabeth Township, Allegheny County. AEC will consist of a one-on-one (1 x 1), nominal 639 MW power plant that will include one combustion turbine (CT), one heat recovery steam generator (HRSG) with supplemental duct firing, and one steam turbine (ST). The proposed General Electric (GE) model (7HA.03) CT will fire clean low sulfur pipeline-quality natural gas. In addition to the CT and associated pieces of equipment, one auxiliary boiler, one dew point heater, one emergency generator, one fire water pump, and four above-ground storage tanks (ASTs) will be included as part of the facility.

The facility is a major source of nitrogen oxides (NO_X), carbon monoxide (CO), and volatile organic compounds (VOCs) emissions and a minor source of particulate matter, particulate matter < 10 microns in diameter (PM_{10}), particulate matter < 2.5 microns in diameter ($PM_{2.5}$) sulfur dioxide (SO_2), and hazardous air pollutants (HAPs) as defined in section 2101.20 of Article XXI and in 40 CFR Part 51 Subpart 165(a)(1)(iv)(A)(1).

INSTALLATION DESCRIPTION

This permit is for the installation of a natural gas-fired combined-cycle power block in a 1 x 1 configuration with a CT, a HRSG with a supplementary duct burner (DB), and a steam turbine (ST). The CT and the ST will have separate electric generators. Other components include an emergency generator, a fire water pump, an auxiliary boiler, a dew point heater, and four ASTs. The principal product of this facility will be electricity.

The emission units regulated by this permit are summarized in Table II-1:

TABLE II-1: Emission Unit Identification

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
Combined Cycle Power Block					
CT01	General Electric 7HA.03 Combustion Turbine	Dry Low NO_X burner, SCR, Oxidation Catalyst	3,844 MMBtu/hr (626 MW)	Natural Gas	S001
	Heat Recovery Steam Generator with Duct Burner		394 MMBtu/hr		
	Steam Turbine		--		
Ancillary Equipment					
EG01	Emergency Generator	None	2,000 kWe	Ultra-Low Sulfur Diesel	S002
B001	Auxiliary Boiler	Ultra-Low NO_X burner, Flue Gas Recirculation	88.7 MMBtu/hr	Natural Gas	S004
H001	Dew Point Heater	None	3.0 MMBtu/hr	Natural Gas	S005
WP01	Fire Water Pump	None	1.9 MMBtu/hr	Ultra-Low Sulfur Diesel	S003

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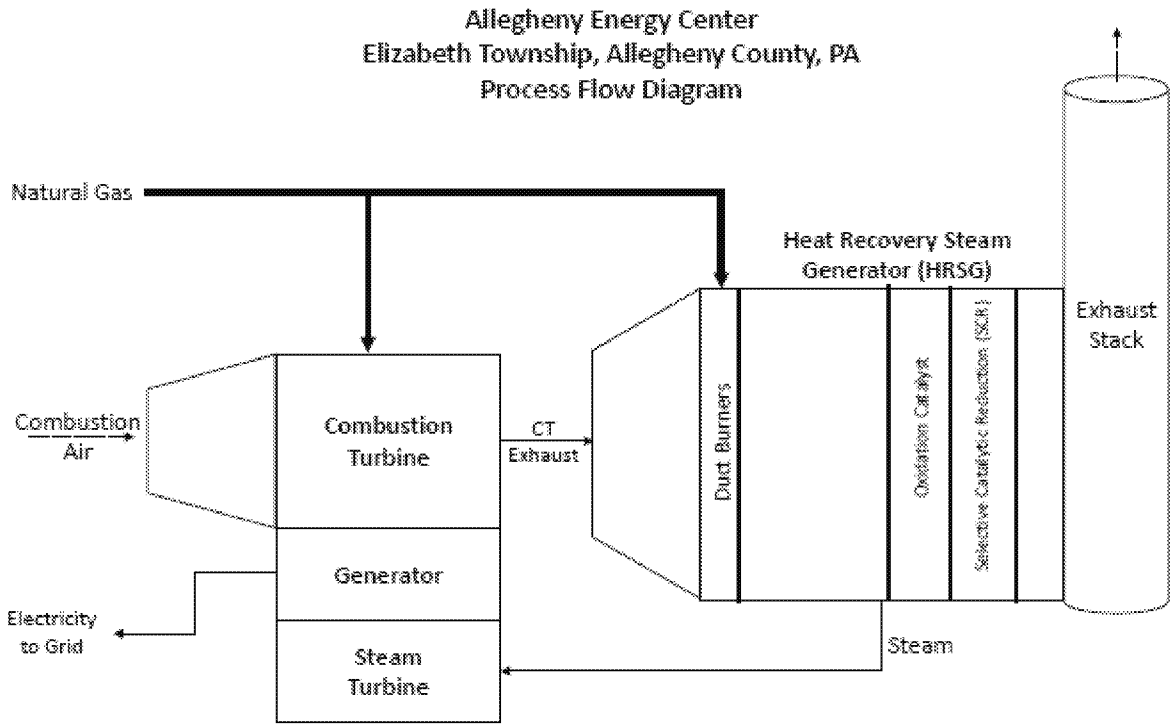
I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
T001	Aqueous Ammonia Storage Tank	None	20,000 gallons	Aqueous Ammonia	--
T002	Lubricating Oil Storage Tank	None	11,250 gallons	Lubricating Oil	--
T003	Emergency Generator Diesel Storage Tank	None	3,500 gallons	Ultra-Low Sulfur Diesel	--
T004	Fire Water Pump Diesel Storage Tank	None	500 gallons	Ultra-Low Sulfur Diesel	--
--	Circuit Breakers	None	1,473 pounds	Sulfur Hexafluoride	--

Process Flow Diagram



DECLARATION OF POLICY

Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.

The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of *Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control.* The subject equipment has been conditionally approved for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.

III. GENERAL CONDITIONS

1. Prohibition of Air Pollution (§2101.11)

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
c. May reasonably be anticipated to endanger the public health, safety, or welfare.

2. Nuisances (§2101.13)

Any violation of any requirement of this Permit shall constitute a nuisance.

3. Definitions (§2101.20)

a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI or the applicable federal or state regulation. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.

b. Unless specified otherwise in this permit or in the applicable regulation, the term "*year*" shall mean any twelve (12) consecutive months.

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4. Certification (§2102.01)

Any report or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or Article XXI, and all equivalent compliance techniques that have been approved by the Department, shall be properly installed, maintained, and operated consistent with good air pollution control practice.

6. Conditions (§2102.03.c)

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

7. Transfers (§2102.03.e)

This permit shall not be transferable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b.

8. Effect (§2102.03.g)

Issuance of this permit shall not in any manner relieve any person of the duty to fully comply with the requirements of Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of Article XXI or this Permit, whether occurring before or after the issuance of such permit. Further, the issuance of this permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of Article XXI or this Permit.

9. General Requirements (§2102.04.a)

It shall be a violation of this Permit giving rise to the remedies set forth in Article XXI §2109 for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment to which this Permit applies unless either:

a. The Department has first issued an Installation Permit for such source or equipment; or

b. Such action is solely a reactivation of a source with a current Operating Permit, which is approved under §2103.13 of Article XXI.

10. Conditions (§2102.04.e)

Further, the initiation of installation, modification, replacement, reconstruction, or reactivation under this

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Installation Permit and any reactivation plan shall be deemed acceptance by the source of all terms and conditions specified by the Department in this permit and plan.

11. Revocation (§2102.04.f)

a. The Department may, at any time, revoke this Installation Permit if it finds that:
   1) Any statement made in the permit application is not true, or that material information has not been disclosed in the application;
   2) The source is not being installed, modified, replaced, reconstructed, or reactivated in the manner indicated by this permit or applicable reactivation plan;
   3) Air contaminants will not be controlled to the degree indicated by this permit;
   4) Any term or condition of this permit has not been complied with;
   5) The Department has been denied lawful access to the premises or records, charts, instruments and the like as authorized by this Permit; or

b. Prior to the date on which construction of the proposed source has commenced the Department may, revoke this Installation Permit if a significantly better air pollution control technology has become available for such source, a more stringent regulation applicable to such source has been adopted, or any other change has occurred which requires a more stringent degree of control of air contaminants.

12. Term (§2102.04.g)

This Installation Permit shall expire in 18 months if construction has not commenced within such period or shall expire 18 months after such construction has been suspended, if construction is not resumed within such period. In any event, this Installation Permit shall expire upon completion of construction, except that this Installation Permit shall authorize temporary operation to facilitate shakedown of sources and air cleaning devices, to permit operations pending issuance of a related subsequent Operating Permit, or to permit the evaluation of the air contamination aspects of the source. Such temporary operation period shall be valid for a limited time, not to exceed 180 days, but may be extended for additional limited periods, each not to exceed 120 days, except that no temporary operation shall be authorized or extended which may circumvent the requirements of this Permit.

13. Annual Installation Permit Administrative Fee (§2102.10.c & e)

No later than 30 days after the date of issuance of this Installation Permit and on or before the last day of the month in which this permit was issued in each year thereafter, during the term of this permit until a subsequent corresponding Operating Permit or amended Operating Permit is properly applied for, the owner or operator of such source shall pay to the Department, in addition to all other applicable emission and administration fees, an Annual Installation Permit Administration Fee in an amount of $750.

14. Severability Requirement (§2103.12.l)

The provisions of this permit are severable, and if any provision of this permit is determined to by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

15. Reporting Requirements (§2103.12.k)

a. The permittee shall submit reports of any required monitoring at least every six (6) months. All

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instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.

b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

c. All reports submitted to the Department shall comply with the certification requirements of General Condition III.4 above.

d. Semiannual reports required by this permit shall be submitted to the Department as follows:
   1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
   2) One semiannual report is due by February 1 of each year for the time period beginning July 1 and ending December 31.
   3) The first semiannual report shall be due July 31, 2021 for the time period beginning on the issuance date of this permit through June 30, 2021.

e. Reports may be emailed to the Department at aqreports@alleghenycounty.us in lieu of mailing a hard copy.

16. Minor Installation Permit Modifications (§2102.10.d)

Modifications to this Installation Permit may be applied for but only upon submission of an application with a fee in the amount of $300 and where:

a. No reassessment of any control technology determination is required; and
b. No reassessment of any ambient air quality impact is required.

17. Violations (§2104.06)

The violation of any emission standard established by this Permit shall be a violation of this Permit giving rise to the remedies provided by Article §2109.02.

18. Other Requirements Not Affected (§2105.02)

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable federal, state, or county statute, rule, regulation, or the like, including, but not limited to, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology standards now or hereafter established by the EPA, and any applicable requirement of BACT or LAER as provided by Article XXI, any condition contained in this Installation Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Part I of Article XXI.

19. Other Rights and Remedies Preserved (§2109.02.b)

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit

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20. Penalties, Fines, and Interest (§2109.07.a)

A source that fails to pay any fee required under this Permit or article XXI when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with of Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have its permit revoked.

21. Appeals (§2109.10)

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

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IV. SITE LEVEL TERMS AND CONDITIONS

1. Reporting of Upset Conditions (§2103.12.k.2)

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2. Visible Emissions (§2104.01.a)

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
b. Equal or exceed an opacity of 60% at any time.

3. Odor Emissions (§2104.04) (County-only enforceable)

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

4. Materials Handling (§2104.05)

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

6. Open Burning (§2105.50)

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

7. Shutdown of Control Equipment (§2108.01.b)

a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s) served by such air pollution control equipment is also shut down at all times that such equipment

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is shut down.

b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.

c. The prior report required by Site Level Condition IV.7.a above shall include:

1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
2) The reasons for the shutdown;
3) The expected length of time that the equipment will be out of service;
4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
7) Such other information as may be required by the Department.

8. Breakdowns (§2108.01.c)

a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.

b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:

1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
2) The nature and probable cause of the breakdown.
3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
5) The estimated quantity of each material being or likely to be emitted.
6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.
7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.

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c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.

d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs a and b above.

e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.

f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

9. Cold Start (§2108.01.d)

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

10. Monitoring of Malodorous Matter Beyond Facility Boundaries (§2104.04)

The permittee shall take all reasonable action as may be necessary to prevent malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations on a monthly basis when the equipment is in operation along facility boundaries to insure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible and record all findings and corrective action measures taken.

11. Emissions Inventory Statements (§2108.01.e & g)

a. Emissions inventory statements in accordance with §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.

b. The failure to submit any report or update within the time specified, the knowing submission of

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false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

12. Orders (§2108.01.f)

In addition to meeting the requirements Site Level Conditions IV.7 through IV.11 above, inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

13. Violations (§2108.01.g)

The failure to submit any report or update thereof required by Site Level Conditions IV.7 through IV.12 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

14. Emissions Testing (§2108.02)

a. **New and Modified Sources:** No later than 60 days after achieving full production of the facility or 120 days after startup, whichever is earlier, the permittee shall conduct, or cause to be conducted, such emissions tests as are specified by the Department to demonstrate compliance with the applicable requirements of this permit and shall submit the results of such tests to the Department in writing. Upon written application setting forth all information necessary to evaluate the application, the Department may, for good cause shown, extend the time for conducting such tests beyond 120 days after startup but shall not extend the time beyond 60 days after achieving full production. Emissions testing shall comply with all applicable requirements of Article XXI, §2108.02.e.

b. **Tests by the Department:** Notwithstanding any tests conducted pursuant to this permit, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

c. **Testing Requirements:** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.

d. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling

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and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.

e. **Violations:** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

15. Abrasive Blasting (§2105.51)

a. Except where such blasting is a part of a process requiring an operating permit , no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.

b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

16. Asbestos Abatement (§2105.62, §2105.63)

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

17. Volatile Organic Compound Storage Tanks (§2105.12.a)

No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia or greater under actual storage conditions in any aboveground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with State or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. Petroleum liquid storage vessels that are used to store produced crude oil and condensate prior to lease custody transfer are exempt from these requirements.

18. Fugitive Emissions (§2105.49)

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

a. The use of asphalt, oil, water, or suitable chemicals for dust control;
b. The paving and maintenance of roadways, parking lots and the like;
c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
d. The adoption of work or other practices to minimize emissions;
e. Enclosure of the source; and
f. The proper hooding, venting, and collection of fugitive emissions.

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19. Episode Plans (§2106.02)

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

20. New Source Performance Standards (§2105.05)

a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.

b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

21. National Emission Standards for Hazardous Air Pollutants (§2104.08)

a. The permittee shall comply with each applicable emission limitation, work practice standard, and operation and maintenance requirement of 40 CFR Part 63, Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.*

b. The permittee shall comply with each applicable emission limitation, work practice standard, and operation and maintenance requirement of 40 CFR Part 63, Subpart A – *National Emission Standards for Hazardous Air Pollutants for Source Categories, General Provisions.*

22. Emission Offsets (§2102.06.b.3)

a. The permittee shall secure NO_X and VOC ERCs identified in Table IV prior to commencement of operation of any sources at the facility to offset the total of the net increase in potential to emit. ERCs shall be properly generated and certified by the Department. Upon transfer, the permittee shall submit an installation permit application to the Department documenting the amount of ERCs purchased, the company from which the ERCs were purchased, and the effective date of transfer of the ERCs. The permittee shall not operate any of the sources until the required ERCs are provided to and processed through the ERC Registry in accordance with §2102.06.b.3.

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Table IV-1 –Emission Offsets Required

Pollutant	Total Project-Wide Emissions (tpy)	Offset Ratio	ERC Offsets (tons)
NO_X	146	1.15	168
VOC (stack emissions)	93		107
VOC (fugitive emissions)	2.95E-02	1.3	3.83E-02
		Total	**275**

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V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. 639 Megawatt Combined Cycle Power Block (P001):

Process Description: General Electric 7HA.03 Combustion Turbine, Heat Recovery Steam Generator with Duct Burner and Steam Turbine)
Facility ID: CT01
Max. Design Rate: 4,238 MMBtu/hr (639 MW)
Raw Materials: Natural Gas
Control Device: Dry Low-NO_X burner, Selective Catalytic Reduction (SCR), Oxidation Catalyst

CEM: NO_X; CO

1. Restrictions:

a. Only pipeline-quality natural gas shall be combusted in the combustion turbine (CT). [§2102.04.b.6; §2104.03.a; 2102.06.b.1; 2102.07.a]

b. Only pipeline-quality natural gas shall be combusted in the HRSG duct burners. [§2102.04.b.6; §2104.03.a; 2102.06.b.1; 2102.07.a]

c. Heat input to the combustion turbine shall be limited to 3,844 MMBtu/hr. [§2102.04.b.6; §2103.12.a.2.B; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

d. Heat input to the HRSG duct burners shall be limited to 394 MMBtu/hr. [§2102.04.b.6; §2103.12.a.2.B; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

e. The nitrogen oxide (NO_X) emissions from the (combustion turbine and HRSG duct burners) shall not exceed 2.0 ppm at 15% oxygen (O_2) with and without duct firing (3-hour block average). [§60.4320(a); §60.4325; §2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

f. Ammonia slip shall not exceed 4 ppm_{vd} at 15% oxygen (O_2) with and without duct firing. [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

g. Emissions of sulfur oxides from the combustion turbine and HRSG duct burners shall not exceed 5.6 lbs/hr or 0.0014 lb/MMBtu or 0.90 lb/MWh gross output. [§60.4330(a)(1) and (2); §2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

h. Emissions of volatile organic compounds (VOCs) from the combustion turbine and HRSG duct burners shall not exceed 1.5 ppm at 15% oxygen (O_2) with duct firing or 1.0 ppm at 15% oxygen (O_2) without duct firing. [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

i. Emissions of carbon monoxide (CO) from the combustion turbine and HRSG duct burners shall not exceed 2.0 ppm at 15% oxygen (O_2) with and without duct firing (3-hour block average). [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

j. Emissions of PM Filterable from the combustion turbine and HRSG duct burners shall not exceed 0.0029 lb/MMBtu with duct firing or 0.0042 lb/MMBtu without duct firing. [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

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k. Emissions of $PM_{10}/PM_{2.5}$ (filterable and condensable) from the combustion turbine and HRSG duct burners shall not exceed 0.0058 lb/MMBtu with duct firing or 0.0084 lb/MMBtu without duct firing. [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

l. Emissions of sulfuric acid mist (H_2SO_4) from the combustion turbine and HRSG duct burners shall not exceed 0.001 lb/MMBtu . [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

m. Emissions of formaldehyde from the combustion turbine and HRSG duct burners shall not exceed 91 ppb_{vd} at 15% oxygen (O_2). [§63.6100; §2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

n. The emission limits of parts (e)-(m), above, do not apply during periods of startup and shutdown (S/S) for NO_X, VOC, and CO, which will follow the limits in condition V.A.1.s below. [§2102.04.b.6]

o. When the CT supplies more than its design efficiency or 50%, whichever is less, times its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis, either of the following standards must be met: [§60.5520.a; 2102.06.b.1; 2102.07.a]

1) 1,000 lb CO_2/MWh of gross energy output, or
2) 1,030 lb CO_2/MWh of net energy output.

p. Hourly emissions from CT01 in Table V-A-1 shall apply at all times except for periods of startup and shutdown (S/S) for NO_X, VOC, and CO, which will follow the limits in condition V.A.1.s below. Annual emissions from CT01 in Table V-A-1 shall apply at any time: [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

TABLE V-A-1: Emission Unit CT01 Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT With Duct Firing (lb/hr)	HOURLY EMISSION LIMIT Without Duct Firing (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter (Filterable)	10.55	8.24	44.15
PM_{10} (Filterable & Condensable)	21.11	16.49	88.30
$PM_{2.5}$ (Filterable & Condensable)	21.11	16.49	88.30
Nitrogen Oxides	30.90	27.90	141.99
Sulfur Oxides	5.60	5.10	23.65
Carbon Monoxide	18.80	17.00	161.72
Volatile Organic Compounds	8.10	4.90	92.51
Sulfuric Acid Mist	4.00	3.60	17.08
Ammonia	22.90	20.64	97.41
Total HAP	--	--	10.45

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POLLUTANT	HOURLY EMISSION LIMIT With Duct Firing (lb/hr)	HOURLY EMISSION LIMIT Without Duct Firing (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Benzene	0.05	0.05	0.21
Ethylbebzene	0.12	0.12	0.54
Formaldehyde	1.17	1.06	5.12
Toluene	0.50	0.50	2.19
Xylenes	0.25	0.25	1.08
Lead	1.88×10^{-3}	2.02×10^{-3}	8.22×10^{-4}

* A year is defined as any consecutive 12-month period. Annual emissions include startup and shutdown emissions.

q. During startup and shutdown events, at no time shall NO_X emissions exceed 252.6 lb/hr from CT01 to ensure compliance with the 1-hour average NO_2 NAAQS. [§2102.04.b.6; §2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

r. Total number of startup and shutdown events shall not to exceed 365 events per rolling 12-month period. [§2102.04.b.6]

s. During startup and shutdown events, at no time shall NO_X, CO, and VOC emissions exceed the emission limits in the following Table V-A-2: [§2102.04.b.6]

TABLE V-A-2: Emission Unit CT01 Emission Startup and Shutdown Limitations

CT Startup/Shutdown Emissions Rates (lb/event)			
Event	NO_X	CO	VOC
Cold Start	250	900	280
Warm Start	180	570	220
Hot Start	90	390	205
Shutdown	14	85	125

2. Testing Requirements:

a. The permittee shall perform annual performance tests to control NO_X emissions in accordance with §60.4400 to demonstrate continuous compliance. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit for the turbine, the permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit for the turbine, the permittee must resume annual performance tests. [§60.4340(a)]

b. The permittee shall install and certify a NO_X-diluent CEMS under condition V.A.3.g below (§60.4345), then the initial performance test required under §60.8 may be performed in the following alternative manner: [§60.4405]

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1) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0°F during the RATA runs.
2) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.
3) Use the test data both to demonstrate compliance with the applicable NO_X emission limit under §60.4320 and to provide the required reference method data for the RATA of the CEMS described under §60.4335.
4) Compliance with the applicable emission limit in §60.4320 is achieved if the arithmetic average of all of the NO_X emission rates for the RATA runs, expressed in units of ppm or lb/MWh, does not exceed the emission limit.

c. The permittee shall have a Relative Accuracy Test Audit (RATA) performed for the carbon monoxide (CO) CEMS as specified in 40 CFR Part 60, Appendix B. The RATA shall be performed annually to evaluate the acceptability of the CO CEMS data. The permittee shall submit the RATA protocol to the Department at least 45 days prior to the test dates. [40 CFR Part 60, Appendix B; §2108.03]

d. NO_X emissions rate and O_2 concentration and CO emissions rate shall be determined by the certified CEMs at the outlet stack for the period of testing, and minute and hourly average data shall be included in the test report. [§2108.02, §2102.04.b.6; §2105.03]

e. The permittee shall perform PM, PM_{10}, $PM_{2.5}$, NO_X, SO_2, CO, NH_3, VOC, formaldehyde, and sulfuric acid mist emissions testing on the combustion turbine and HRSG stack once every 2 years to demonstrate compliance with conditions V.A.1.e through V.A.1.m and the emission limits in condition V.A.1.p above. Compliance shall be based on an average of three one-hour test runs. The emissions testing shall be conducted according to the following: [§2108.02.b; §2108.02.e; §60.4415; §63.6120(a)]

1) Particulate Matter shall be determined by EPA Method 5B, 202, or equivalent as approved by the Department;
2) PM_{10} and $PM_{2.5}$ shall be determined by EPA Method 5B, 201A, or 202, or an equivalent method as approved by the Department;
3) Nitrogen oxides shall be determined by any of the EPA Methods 7 through 7E;
4) SO_2 shall be determined by EPA Method 6, 6A, 6B, or 6C or equivalent as approved by the Department;
5) CO emissions shall be determined by EPA Method 10, 10A or 10B or equivalent as approved by the Department;
6) Ammonia emissions shall be determined by EPA Conditional Test Method 027, 320, or equivalent as approved by the Department;
7) VOC emissions shall be determined by EPA method 18, 25A or equivalent as approved by the Department;
8) NO_X and CO emissions may be determined by recently certified CEMs required in condition V.A.3 below in lieu of reference test methods;
9) Formaldehyde emissions shall be determined by EPA method 320 or equivalent as approved by the Department;
10) Sulfuric acid shall be determined by EPA method 8 or equivalent as approved by the Department.

f. The permittee shall monitor the following parameters for the selective catalytic reduction (SCR)

system and oxidation catalyst during the stack test continuously (or a minimum of once every fifteen minutes) and provide the data as part of the test report: [§2108.02; §2102.04.b.6; §2105.03]

1) Catalytic bed inlet gas temperature;
2) Pressure differential across the catalyst bed;
3) Ammonia solution injection rate; and
4) NO_X emissions (ppm and lb/hr) from the CEM

g. The permittee shall establish the oxidation catalyst inlet and outlet operating temperature during the stack testing. [§2108.02, §2102.04.b.6; §2105.03]

h. All relevant operating parameters (e.g., boiler steam flow, exhaust gas, gross megawatts, heat input and stack flue gas volumetric flow rate, and flue gas conditioning system operating parameters) shall be recorded at appropriate intervals throughout the duration of stack test. [§2108.02; §2102.04.b.6; §2105.03]

i. Emissions testing required in condition V.A.2.e above shall be for filterable and condensable particulate matter. [§2108.02]

j. During the initial emissions test of CO and VOC and during subsequent emissions tests required under site level condition IV.14.a, the permittee shall establish a correlation factor between CO and VOC in order to demonstrate compliance with VOC emission limits. [§2108.02; §2102.04.b.6]

k. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [§2103.12.h.1]

3. Monitoring Requirements:

a. The permittee shall operate and maintain continuous nitrogen oxides monitoring systems and other monitoring systems to convert data to required reporting units in compliance with 25 PA Code §§139.101 - 139.111 relating to requirements for continuous in-stack monitoring for stationary sources. [§2108.03.b.2; §2103.12.a.2.D; §2103.12.i;]

b. The permittee shall operate and maintain continuous carbon monoxide monitoring systems and other monitoring systems to convert data to required reporting units in compliance with 25 PA Code §§139.101 - 139.111 and the Pennsylvania Department of Environmental Protection's "Continuous Source Monitoring Manual." [§2108.03.b.2; §2103.12.a.2.D; §2103.12.i;]

c. The permittee shall continuously monitor the following parameters for the selective catalytic reduction (SCR) system: [§2103.12.i]

1) Catalytic bed inlet gas temperature,
2) Pressure differential across the catalyst bed, and
3) Ammonia solution injection rate.

d. The permittee shall operate and maintain the SCR equipment and monitoring instrumentation in accordance with the manufacturer's specifications and good air pollution control practice. [§2105.03; §2102.04.b.6]

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e. The permittee shall continuously monitor the oxygen content of the flue gas of the combustion turbine and HRSG to ensure the unit is being operated and maintained properly and is operating under the conditions demonstrated during the most recent compliance test. [§2103.12.i; §2108.03]

f. As an alternative to condition V.A.2.a above, the permittee may install, calibrate, maintain and operate one of the following continuous monitoring systems: [§60.4340(b); §2103.12.a.2.D; §2103.12.i]

1) Continuous emission monitoring as described in condition V.A.3.c above, or
2) For affected units that are also regulated under part 75 of this chapter, with state approval the permittee can monitor the NO_X emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).

g. Each NO_X diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis. [§60.4345(a); §2108.03.b.2]

h. As specified in §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour. [§60.4345(b)]

i. Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart. [§60.4345(c)]

j. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions. [§60.4345(d)]

k. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in conditions V.A.3.g, V.A.3.i and V.A.3.j. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter. [§60.4345(e)]

l. The parameters that are continuously monitored as described in conditions V.A.3.d and V.A.2.f above (§60.4340) must be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The permittee may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant

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information to define the acceptable parametric ranges more precisely. The permittee must develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO_X emission controls. The plan must: [§60.4355]

1) Include the indicators to be monitored and show there is a significant relationship to emissions and proper operation of the NO_X emission controls,
2) Pick ranges (or designated conditions) of the indicators, or describe the process by which such range (or designated condition) will be established,
3) Explain the process you will use to make certain that you obtain data that are representative of the emissions or parameters being monitored (such as detector location, installation specification if applicable),
4) Describe quality assurance and control practices that are adequate to ensure the continuing validity of the data,
5) Describe the frequency of monitoring and the data collection procedures which you will use (e.g., you are using a computerized data acquisition over a number of discrete data points with the average (or maximum value) being used for purposes of determining whether an exceedance has occurred), and
6) Submit justification for the proposed elements of the monitoring. If a proposed performance specification differs from manufacturer recommendation, permittee must explain the reasons for the differences. Permittee must submit the data supporting the justification, but you may refer to generally available sources of information used to support the justification. Permittee may rely on engineering assessments and other data, provided you demonstrate factors which assure compliance or explain why performance testing is unnecessary to establish indicator ranges. When establishing indicator ranges, you may choose to simplify the process by treating the parameters as if they were correlated. Using this assumption, testing can be divided into two cases:

    a) All indicators are significant only on one end of range (e.g., for a thermal incinerator controlling volatile organic compounds (VOC) it is only important to insure a minimum temperature, not a maximum). In this case, you may conduct your study so that each parameter is at the significant limit of its range while you conduct your emissions testing. If the emissions tests show that the source is in compliance at the significant limit of each parameter, then as long as each parameter is within its limit, you are presumed to be in compliance.
    b) Some or all indicators are significant on both ends of the range. In this case, you may conduct your study so that each parameter that is significant at both ends of its range assumes its extreme values in all possible combinations of the extreme values (either single or double) of all of the other parameters. For example, if there were only two parameters, A and B, and A had a range of values while B had only a minimum value, the combinations would be A high with B minimum and A low with B minimum. If both A and B had a range, the combinations would be A high and B high, A low and B low, A high and B low, A low and B high. For the case of four parameters all having a range, there are 16 possible combinations.

m. For combustion turbines that are also subject to 40 CFR Part 75 and that have state approval to use the low mass emissions methodology in §75.19 or the NO_X emission measurement methodology in appendix E to part 75, the permittee may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a QA plan, as described in §75.19(e)(5) or in section 2.3 of appendix E to part 75 of this chapter and section 1.3.6 of appendix B to Part 75. [§60.4355(b)]

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n. The permittee must monitor the total sulfur content of the fuel being fired in the turbines, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used. [§60.4360]

o. The permittee may elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day. [§60.4370(b)]

p. Notwithstanding the requirements of condition V.A.3.o above, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.4330. [§60.4370(c)]

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the combustion turbine and HRSG: [§2102.04.b.6; §2103.12.j; §2013.12.a.2.B; §2103.12.a.2.D]

1) Type and amount of fuel used (MMscf of natural gas/day);
2) Steam load (lbs/hr, lbs/day; average daily steam load for each month);
3) Startup and shutdown events (date, time and duration of each occurrence);
4) Total operating hours, (hours/day, monthly and 12-month);
5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment;
6) Stack test protocols and reports; and

b. The permittee shall maintain the manufacturer's preventative maintenance schedule and a copy of the specifications for the SCR air pollution control equipment on-site. [§2102.04.b.6; §2103.12.j]

c. The permittee shall maintain records of all air pollution control system performance evaluations and all records of calibration checks, adjustments, and maintenance performed on all equipment which is subject to this permit. [§2102.04.b.6; §2103.12; §2103.05]

d. The permittee shall record at a minimum the catalytic bed inlet temperature, pressure differential across the catalyst bed, and the ammonia solution injection rate (once each shift) for the SCR control system information. [§2102.04.b.6; §2103.12.j]

e. The permittee shall maintain onsite a copy of the manufacturer's specifications for all CEMs that are required by this permit. [§2102.04.b.6; §2103.12.j]

f. The permittee shall record start-up and shutdown of the combustion turbine including date, time and duration of each event. [§2102.04.b.6; §2103.12.j]

g. The permittee shall keep a record of the date of any malfunction, the time of the malfunction, the

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cause of the malfunction and the action taken to correct the malfunction. [§2102.04.b.6; §2103.12.j; §2108.01.b & §2108.01.c]

h. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or digital data recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [§2103.12.k; §2102.04.b.6; §2103.12.j]

i. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2102.04.b.6; §2103.12.j]

j. All records required under this section shall be maintained by the permittee for a period of five years following the date of such record. [§2103.12.j.2]

5. Reporting Requirements:

a. The permittee shall submit semi-annual reports to the Department in accordance with General Condition III.15. [§2103.12.k; §2103.12.a.2.B; §2103.12.a.2.D]

b. The permittee shall report non-compliance information required to be recorded by V.A.4.i above to the Department in accordance with General Condition III.15. The reports shall contain all required information for the time period of the report: (§2103.12.k.1; [§2103.12.a.2.B; §2103.12.a.2.D;]

c. The permittee shall submit the results of the continuous nitrogen oxides monitoring systems on a regular schedule and in a format acceptable to the Department and in compliance with the USEPA Clean Air Markets Division Part 75 requirements. [§2108.03.b.3]

d. All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. [§60.4395; §2103.12.a.2.B; §2103.12.a.2.D]

e. For each affected unit required to continuously monitor parameters or emissions, including estimates of VOC emissions using the correlation factor established under condition V.A.2.j above, or to periodically determine the fuel sulfur content under this subpart, the permittee must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [§60.4375(a)]

f. For each affected unit that performs annual performance tests in accordance with §60.4340(a), the permittee must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [§60.4375(b)]

g. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows: [§60.4380(b); §2103.12.a.2.B; §2103.12.a.2.D]

1) For turbine using continuous emission monitoring, as described in condition V.A.3.g above [§60.4345(a)]:

a) An excess emission is any unit operating period in which the 4-hour or 30-day rolling average NO_X emission rate exceeds the applicable emission limit in §60.4320. For the purposes of this subpart, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three-unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_X emission rate is obtained for at least 3 of the 4 hours. For the purposes of this subpart, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine-unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30-unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours.

b) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_X concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

c) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

h. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. [§2103.12.k]

6. Work Practice Standard:

a. The permittee shall operate and maintain stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. except as provided elsewhere. [§60.4333(a)]

7. Additional Requirements:

a. The permittee shall notify the Department in writing ten (10) days prior to the initial start-up of the combustion turbine and HRSG. Notification may be sent via email to the Department at aqreports@alleghenycounty.us. The Department reserves the right to inspect and approve the equipment before it is placed into normal operation. [§2102.04.b.6]

b. The combustion turbine is subject to the Title V Acid Rain Program of the Clean Air Act Amendments of 1990 and shall comply with all applicable provisions of that Title, to include the following:
1) 40 CFR Part 72 Permits Regulation
2) 40 CFR Part 73 Sulfur Dioxide Allowance System
3) 40 CFR Part 75 Continuous Emission Monitoring
4) 40 CFR Part 77 Excess Emissions

c. For any source with a new unit under 72.6(a)(3)(i), the designated representative shall submit a

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complete Acid Rain permit application governing such unit to the permitting authority at least 24 months before the later of January 1, 2000 or the date on which the unit commences operation.

d. The combustion turbine is subject to the Cross-State Air Pollution Rule (CSAPR) (40 CFR Part 97 Subparts AAAAA, BBBBB, and CCCCC) and shall comply with all applicable provisions.

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B. Emergency Generator (EG01):

Process Description: Emergency Generator
Facility ID: EG01
Max. Design Rate: 2,000 kWe
Raw Materials: Ultra-Low Sulfur Diesel
Control Device: None

1. Restrictions:

a. The emergency generator (EG01) shall be fired only during emergency conditions and for a maximum of 100 hours per year each for maintenance checks and readiness testing. [§60.4211(f)(2); §2102.04.b.6; 2102.06.b.1; 2102.07.a]

b. Emissions of nitrogen oxide (NO_X) from the generator unit shall not exceed 6.4 g/kW-hr at any time. [§60.4202(a)(2); §60.4205(b); §2102.04.b.6; §2103.12.a.2.D; §89.112; 2102.06.b.1; 2102.07.a]

c. Emissions of carbon monoxide (CO) from the generator unit shall not exceed 3.5 g/kW-hr at any time. [§60.4202(a)(2); §60.4205(b); §2102.04.b.6; §2103.12.a.2.D; §89.112; 2102.06.b.1; 2102.07.a]

d. Emissions of particulate matter (PM) from the generator unit shall not exceed 0.2 g/kW-hr at any time. [§60.4202(a)(2); §60.4205(b); §2102.04.b.6; §2103.12.a.2.D; §89.112; 2102.06.b.1; 2102.07.a]

e. The permittee shall only combust or allow to be combusted diesel fuel that meets the following requirements: [§2102.04.b.6; §2102.04.e; 2102.06.b.1; 2102.07.a; §60.4207(b); §80.510(b)]

1) Sulfur content no higher than 0.0015% sulfur content (by weight) (15 ppm S); and
1) A minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.

f. Diesel fuel consumption shall be limited to 160 gallons/hour. [§2102.04.b.6; §2105.03; 2102.06.b.1; 2102.07.a]

g. The generator shall be properly operated and maintained according to manufacturer's specifications. The manufacturer's operation and maintenance manuals shall be kept on site at all times. [§60.4205(b); §2102.04.b.6; §2105.03; §60.4206; 2102.06.b.1; 2102.07.a]

h. Emissions from the Emergency Generator EG01 shall not exceed the following at any time: [§2102.04.b.6; 2102.06.b.1; 2102.07.a]

TABLE V-B-1: Emission Unit EG01 Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter (Filterable)	1.01	0.05
PM_{10} (Filterable & Condensable)	1.17	0.06

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
$PM_{2.5}$ (Filterable & Condensable)	1.17	0.06
Nitrogen Oxides (NO_X)	30.56	1.53
Sulfur Oxides (SO_X)	0.04	0.002
Carbon Monoxide (CO)	17.59	0.88
Volatile Organic Compounds (VOCs)	1.61	0.08
Sulfuric Acid Mist	4.55×10^{-03}	2.27×10^{-04}
Lead	1.88×10^{-04}	9.39×10^{-06}
Ammonia	0.99	0.05

* A year is defined as any consecutive 12-month period.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [§2103.12.h.1]

3. Monitoring Requirements:

a. The permittee shall install a non-resettable hour meter prior to startup of the generator. [§2102.04(b)(6); §60.4209(a)]

b. Compliance with the fuel oil sulfur limitations in condition V.B.1.e above shall be determined based on a certification obtained from the fuel supplier meeting the requirements of condition V.B.4.a.1) below.

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the generator: [§2103.12.j]
   1) Fuel shipment records (date and amount received), type of fuel consumed and suppliers' certification of sulfur content, and heating value;
   2) Total operating hours (hours/day, monthly and 12-month); and
   3) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment. [§60.4206]
   4) Manufacturer's certification of the emission standards for the specific generator model. [§60.4202(a)(2)]

b. Records of diesel fuel certifications from fuel suppliers shall be maintained per shipment. Certifications shall include the name of the supplier and a statement from the supplier that the fuel complies with ASTM D975 "Standard Specifications for Diesel Fuel Oils". [§2103.12.j]

c. Records, data and test reports from performance testing shall be maintained by the permittee.

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d. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.j]

e. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2]

5. Reporting Requirements:

a. The permittee shall report the following information to the Department semi-annually in accordance with General Condition III.15. The reports shall contain all required information for the time period of the report: [§2103.12.k]
   1) Monthly and 12-month data required to be recorded by Condition V.B.4.a above;
   2) Non-compliance information required to be recorded by Condition V.B.4.d above; and
   3) Fuel oil certifications and a statement from the permittee that the record of fuel supplier certifications represents all the fuel oil used during the reporting period.

b. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 if appropriate. [§2103.12.k]

6. Work Practice Standard:

The permittee shall operate and maintain Emergency Generator EG01 according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the manufacturer, over the entire life of the generator. In addition, the permittee may only change those settings that are permitted by the manufacturer. The manufacturer's operation and maintenance manuals shall be kept on site at all times. [§2102.04(b)(6); §2105.03; §60.4206; §60.4211(a)]

7. Additional Requirements:

The permittee shall notify the Department in writing ten (10) days prior to the initial start-up of the emergency generator. Notification may be sent via email to the Department at aqreports@alleghenycounty.us. The Department reserves the right to inspect and approve the equipment before it is placed into normal operation. [§2102.04.b.6]

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C. Auxiliary Boiler (B001):

Process Description: Auxiliary Boiler
Facility ID: B001
Max. Design Rate: 88.7 MMBtu/hr
Raw Materials: Natural Gas
Control Device: Ultra-Low NO_X burner, Flue Gas Recirculation

1. Restrictions:

a. Only pipeline-quality natural gas shall be combusted in the boiler. [§2102.04.b.6; §2104.03.a; 2102.06.b.1; 2102.07.a]

b. Heat input shall be limited to 88.7 MMBtu/hr based on the higher heating value of the fuel being combusted. [§2103.12a.2.B; 2102.06.b.1; 2102.07.a]

c. The amount of natural gas combusted shall not exceed 337.9 mmscf in any consecutive 12-month period. [§2102.04.b.6; 2102.06.b.1; 2102.07.a]

d. Emissions of particulate matter shall not exceed 1.81E-03 lbs/MMBtu. [§2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

e. Emissions of carbon monoxide shall not exceed 0.041 lbs/MMBtu. [§2102.04.b.6; §2103.12.a.2.D; §210.312.f.1; 2102.06.b.1; 2102.07.a]

f. The boiler burner shall be an ultra-low NO_X burner (ULNB) for natural gas with flue gas recirculation (FGR) and a maximum NO_X emission of 0.011 lbs/MMBtu. [§2102.04.b.6; §2103.12.a.2.D; §210.312.f.1; 2102.06.b.1; 2102.07.a]

g. Emissions from B001 shall not exceed the following at any time: [§2102.04.b.6; §2104.0.a.1.A; §2104.0.a.1; 2102.06.b.1; 2102.07.a]

TABLE V-C -1: Emission Unit B001 Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter	0.16	0.32
Particulate Matter < 10 μm	0.13	0.26
Particulate Matter < 2.5 μm	0.11	0.22
Nitrogen Oxides (NO_X)	0.98	1.95
Sulfur Oxides (SO_X)	0.10	0.20
Carbon Monoxide (CO)	3.64	7.27
Volatile Organic Compounds (VOCs)	0.36	0.71
Sulfuric Acid Mist	0.012	0.024

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POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Lead	4.2 E-05	8.4 E-05
Ammonia	0.27	0.54

* A year is defined as any consecutive 12-month period.

2. Testing Requirements:

a. The permittee shall perform nitrogen oxides emissions testing on the Auxiliary Boiler at least once every five years in order to demonstrate compliance with the emission limitations of this permit. Such testing shall be conducted in accordance with U.S. EPA test method 7E or an alternative method approved by the Department and Article XXI §2108.02. [§2103.12.h.1; §2108.02.b, §2108.02.e; 2102.04.b.6]

b. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 and §2108.02. [§2103.12.h.1]

3. Monitoring Requirements:

The permittee shall install and maintain the necessary meter(s) to determine and to record the monthly amount of natural gas combusted. [§2102.04.b.6; §2102.04.e; §2103.12.i]

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following records: [§2103.12.j; §2108.01.d; §60.48c(g)]
1) Records of the amount of natural gas combusted (monthly and 12 months);
2) Total operating hours (hours/day, monthly and 12-month); and
3) Records of operation, maintenance, inspection, calibration, and/or replacement of equipment.

b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.j]

c. All records required under this section shall be maintained by the permittee for a period of five years following the date of such record. [§2103.12.j.2; §60.48c(i)]

5. Reporting Requirements:

a. The permittee shall submit semiannual reports to the Department in accordance with General Condition III.15. [§2103.12.k]

b. The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by 40 CFR §60.7. This notification shall include: [§2103.12.k; §60.48c(a)]
1) The design heat input capacity of the affected facility and identification of fuel(s) to be combusted in the affected facility; and
2) 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.

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c. The semiannual report shall include the following information: [§2103.12.k; §2108.01.d;]
   1) Calendar dates covered in the reporting period;
   2) The records of fuel combustion required under condition V.C.4.a above;
   3) Cold start information; and
   4) Reasons for any noncompliance with the emission standards;

d. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with §2108.01.d is waived and the permittee may report all cold starts in the semi-annual compliance report required under condition V.C.5.c above. [§2103.12(k); §2108.01(d)]

e. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8. [§2102.04.b.6; §2103.12.k.1]

6. Work Practice Standard:

a. The auxiliary boiler shall be: [§2102.04(b)(6); §2105.03]
   1) Operated in such a manner as not to cause air pollution;
   2) Operated and maintained in a manner consistent with good operating and maintenance practices; and
   3) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

7. Additional Requirements:

The permittee shall notify the Department in writing ten (10) days prior to the initial start-up of the auxiliary boiler. The Department reserves the right to inspect and approve the equipment before it is placed into normal operation. [§2102.04.b.6]

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D. Dew Point Heater (H001):

Process Description: Dew Point Heater
Facility ID: H001
Max. Design Rate: 3.0 MMBtu/hr
Raw Materials: Natural Gas
Control Device: None

1. Restrictions:

a. Only natural gas shall be combusted in the dew point heater. [§2103.12.a.2.B; §2104.03.a.2.A; §2102.06.b.1; §2102.07.a]

b. Natural gas usage in the heater shall not exceed 2,902 scf/hr and 25.43 MMcf in any 12 consecutive months each. [§2103.12.a.2.B; §2104.03.a.2.A; §2102.06.b.1; §2102.07.a]

c. Emissions from each heater shall not exceed the limitations in Table V-D-1 below at any time: [§2102.04.b.6; §2103.12.a.2.D; §2104.02.a.1; §2104.03.a.2.A; 2102.06.b.1; 2102.07.a]

TABLE V-D-1: Emission Unit H001 Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter	0.014	0.063
Particulate Matter < 10 μm	4.46×10^{-03}	0.020
Particulate Matter < 2.5 μm	3.69×10^{-03}	0.016
Nitrogen Oxides (NO_X)	0.033	0.145
Sulfur Oxides (SO_X)	0.003	0.014
Carbon Monoxide (CO)	0.111	0.486
Volatile Organic Compounds (VOCs)	0.015	0.066
Sulfuric Acid Mist	4.00×10^{-04}	0.002
Lead	1.43×10^{-06}	6.26×10^{-06}
Ammonia	0.009	0.040

* A year is defined as any consecutive 12-month period.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [§2103.12.h.1]

3. Monitoring Requirements:

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The permittee shall install and maintain the necessary meter(s) to determine and to record the monthly amount of natural gas combusted. [§2102.04.b.6; §2102.04.e; §2103.12.i]

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the dew point heaters: [§2103.12.a.2.B; §§2103.12.j & k]

1) Record of fuel consumption (monthly and 12-month); and
2) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.

b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.j]

c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j]

5. Reporting Requirements:

a. The permittee shall report non-compliance information required to be recorded by the Department in V.D.4.b in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: [§2103.12.k.1]

b. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with §2108.01.d is waived and the permittee may report all cold stars in the semi-annual compliance report required under condition V.D.5.a above. [§2103.12(k); §2108.01(d)]

c. Reporting instances of non-compliance in accordance with condition V.D.5.a above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. (§2103.12.k.1)

6. Work Practice Standard:

a. The permittee shall not, at any time, operate the dew point heater unless the subject heater is properly operated and maintained according to good engineering and air pollution control practices. [§2105.03]

7. Additional Requirements:

The permittee shall notify the Department in writing ten (10) days prior to the initial start-up of the dew point heater. The Department reserves the right to inspect and approve the equipment before it is placed into normal operation. [§2102.04.b.6]

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E. Lubricating Oil Storage Tank (T002):

Process Description: Storage Tank
Facility ID: T002
Max. Design Rate: 11,250 gallons
Raw Materials: Lubricating Oil
Control Device: None

1. Restrictions:

a. The permittee shall not place or store, or allow to be placed or stored, any materials in the lubricating oil storage tank other than residual oil No. 6. [§2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

b. Total throughput of lubricating oil for the facility shall be limited to 11,250 gallons per 12-month period. [§2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements:

The permittee shall perform visual inspections on the lubricating oil storage tank annually to ensure compliance with this permit. [§2105.12.f.1]

4. Record Keeping Requirements:

a. The permittee shall keep readily accessible records showing the dimension of the lubricating oil storage tank and an analysis showing its capacity. [§2103.12.j]

b. The permittee shall keep and maintain the following data for the subject tank: [§2103.12.h.1; §2103.12.a.2.B]

1) Monthly throughput, and concentration of the aqueous ammonia stored; and
2) Records of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each control.

5. Reporting Requirements:

The permittee shall report the monthly throughput, and concentration of the aqueous ammonia stored to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: [§2103.12.k.1]

6. Additional Requirements:

None except as provided elsewhere.

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VI. MISCELLANEOUS

This stationary source also includes the following activities:

A. Fire Water Pump (WP01)

ID	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK ID
WP01	Fire Water Pump	Tier 3	282 bhp/1.9 MMBtu/hr	Ultra-Low Sulfur Diesel	S04

1. Restrictions:

a. The fire water pump (WP01) shall be fired only during emergency conditions and for a maximum of 500 hours per year. [§60.4211(f)(2); §2102.04.b.6; 2102.06.b.1; 2102.07.a]

b. The fire water pump shall be properly operated and maintained according to manufacturer's specifications. The manufacturer's operation and maintenance manuals shall be kept on site at all times. [§60.4205(c); §2102.04.b.6; §2105.03; §60.4206; 2102.06.b.1; 2102.07.a]

c. The permittee shall only combust or allow to be combusted diesel fuel that meets the following requirements: [§2103.12.a.2.D; §2103.10.b.3; §60.4207(b); §80.510(b); 2102.06.b.1; 2102.07.a]

1) Sulfur content no higher than 0.0015% sulfur content (by weight) (15 ppm S); and
2) A minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [§2103.12.h.1]

3. Monitoring Requirements:

The permittee shall install a non-resettable hour meter prior to startup of the fire water pump. [§60.4209(a); §2102.04.b.6; §2103.12.a.2.D;]

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the fire water pump: [§2103.12.a.2.D; §2103.12.j; §60.4214(b)]

1) Date, time, duration, and reason for each use;
2) Operating hours (monthly and 12-month) as recorded by the non-resettable hour meters required under condition VI.A.3 above; and
3) Records of operation, maintenance, inspection, calibration, and/or replacement of combustion equipment.

b. All records shall be retained by the facility for at least five (5) years. These records shall be made

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available to the Department upon request for inspection and/or copying. [§2103.12.a.2.D; §2103.12.j.2]

5. Reporting Requirements:

The permittee shall report the information required to be recorded by condition VI.A.4.a above to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report. [§2103.12.a.2.D; §2103.12.k; 40 CFR §63.6625(i)]

6. Work Practice Standard:

The Permittee shall operate and maintain the fire water pump in accordance with the manufacturers' specification and good engineering practices. [§2103.12.a.2.B]

7. Additional Requirements:

None except as provided elsewhere.

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B. Aqueous Ammonia Storage Tank (T001):

Process Description: Storage Tank
Facility ID: T001
Max. Design Rate: 20,000 gallons
Raw Materials: Aqueous Ammonia
Control Device: None

1. Restrictions:

Only aqueous ammonia shall be stored in tank T001 at any time. [§2103.12.a.2.B; 2102.06.b.1; 2102.07.a]

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements [§2102.04.e]:

The storage tank shall be visually inspected on a monthly basis to assure the integrity of tank and that no leaks are present.

4. Record Keeping Requirements:

a. The permittee shall keep and maintain the following data for the subject tank: [§2103.12.h.1; §2103.12.a.2.B]

1) Monthly throughput, and concentration of the aqueous ammonia stored; and
2) Records of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each control.

5. Reporting Requirements:

The permittee shall report the monthly throughput, and concentration of the aqueous ammonia stored to the Department in accordance with General Condition III.15 above. [§2103.12.k.1]

6. Work Practice Standards:

None except as provided elsewhere.

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C. Diesel Storage Tanks T003 and T004

ID	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL
T003	Emergency Generator Diesel Storage Tank	Uncontrolled	3,500 gallons	Ultra-Low Sulfur Diesel
T004	Fire Water Pump Diesel Storage Tank	Uncontrolled	500 gallons	Ultra-Low Sulfur Diesel

The permittee is also subject to the following conditions:

1. Restrictions:

a. The permittee shall not place or store, or allow to be placed or stored, any materials in Diesel Fuel Storage Tanks T003 and T004 other than Ultra-Low Sulfur Diesel. [§2103.12.a.2.D; 2102.06.b.1; 2102.07.a]

b. The permittee shall perform routine inspections on the diesel fuel storage tanks annually to ensure compliance with this permit. [§2105.12.f.1]

c. The permittee shall keep readily accessible records showing the dimension of the diesel fuel storage tanks and an analysis showing its capacity. [§2103.12.j]

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D. Sources of Minor Significance/Other Miscellaneous Sources

The following table summarizes the processes and/or activities conducted at Allegheny Energy Center, LLC that were determined to be of minor significance:

TABLE VI-D-1: Sources of Minor Significance

Facility ID	Source Description	Basis for Exemption
--	Natural Gas Piping Fugitives	minimal VOC emissions
--	Natural Gas Maintenance + SU/SD Venting	minimal VOC emissions
--	SF_6 Circuit Breakers	Not a source of VOC emissions

1. Restrictions:

a. The permittee shall maintain the following comprehensive and accurate records: [§2103.12.j]

1) Amount of sulfur hexafluoride (SF_6) dielectric added to each circuit breaker unit on a monthly basis.
2) The date and time that each alarm associated with the circuit breaker is activated, the corrective action taken to remedy the problem associated with each alarm, and the date the corrective action remedied the problem.

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VII. ALTERNATIVE OPERATING SCENARIOS

No alternative operating scenarios exist for this facility.

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VIII. EMISSIONS LIMITATIONS SUMMARY

The annual emission limitations for the Allegheny Energy Center facility are summarized in the following table:

TABLE VII-1: Emission Limitations Summary

POLLUTANT	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter - filterable	44.59
Particulate Matter <10 μm (PM_{10}) – filterable + condensable	88.65
Particulate Matter <2.5 μm ($PM_{2.5}$) – filterable + condensable	88.60
Nitrogen Oxides (NO_X)	145.70
Sulfur Oxides (SO_X)	23.89
Carbon Monoxide (CO)	170.44
Volatile Organic Compounds (VOC)	93.40
Sulfuric Acid Mist	17.11
Ammonia	98.05
Total Hazardous Air Pollutants (HAP)	10.50
Benzene	0.21
Ethylbenzene	0.54
Formaldehyde	5.18
Toluene	2.20
Xylenes	1.08
Lead	9.23×10^{-4}
Greenhouse Gases (CO_2e)	1,948,493

*** A year is defined as any consecutive 12-month period.**

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