

Permit ID: 9-2920-00008/00015

**Renewal Number: 2** 

Modification Number: 3 12/02/2014

**Facility Identification Data** 

Name: TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C

Address: 5186 LOCKPORT JUNCTION RD

LOCKPORT, NY 14094

Owner/Firm

Name: TENNESSEE GAS PIPELINE COMPANY LLC

Address: 1001 LOUISIANA ST

PO BOX 2511

HOUSTON, TX 77252-2511, USA

Owner Classification: Corporation/Partnership

**Permit Contacts** 

Division of Environmental Permits: Name: LISA M CZECHOWICZ Address: NYSDEC - REGION 9

270 MICHIGAN AVE BUFFALO, NY 14203-2915

Phone:7168512165

Division of Air Resources: Name: CHERYL WEBSTER Address: NYSDEC - REGION 9 270 MICHIGAN AVE BUFFALO, NY 14203-2915

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Name: THOMAS P SUTTON

Address: TENNESSEE GAS PIPELINE COMPANY LLC

7586 EAST EDEN RD EDEN, NY 14057 Phone:7166462022

## Permit Description Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

#### **Summary Description of Proposed Project**

Installation of a natural gas dehydrator system with a capacity of 750 MMscf/day, a 420 HP Waukesah emergency generator, and two (2) triethylene glycol regenerators each equipped with a 0.3 MMBtu/hr reboiler, vented to a thermal oxidizer.



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#### **Attainment Status**

TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C is located in the town of CAMBRIA in the county of NIAGARA.

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

#### Criteria Pollutant

#### **Attainment Status**

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

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## **Facility Description:**

TGP CS230-c is a natural gas transmission facility currently consisting of two Solar Centaur H compressor turbines (4500 HP), two larger Solar Centaur 50-6100 turbines (6130 HP), and a Waukesha 148 HP emergency generator.

#### **Permit Structure and Description of Operations**

The Title V permit for TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

combustion - devices which burn fuel to generate heat, steam or power

incinerator - devices which burn waste material for disposal

control - emission control devices

process - any device or contrivance which may emit air contaminants

that is not included in the above categories.

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

<sup>\*\*</sup> NOx has a separate ambient air quality standard in addition to being an ozone precursor.



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unit(s):

Emission unit 1AUX01 - One natural gas-fired 420 HP Waukesha F18GL emergency generator which will replace a natural gas-fired 148 HP Waukesha F18G emergency generator.

Emission unit 1AUX01 is associated with the following emission points (EP):

AUX1A, AUX2A

Process: AUX is located at Building 1 - Operation of Waukesha 148 hp emergency generator

Process: AX2 Operation of the natural gas-fired 420 HP Waukesha F18GL emergency generator with maximum operation of 500 hours per year.

Emission unit T23001 -

Emission unit T23001 is associated with the following emission points (EP):

T001A, T002A, T003A, T004A

Process: TUR is located at GROUND, Building 1 - Four (4) Solar Centaur compressor turbines.

Emission unit G23002 - The emission unit is a natural gas dehydrator system consisting of two (2) absorber trains with a combined 750 MMscf/day (375 MMscf/day for each train) and two (2) triethylene glycol regenerators each equipped with a reboiler rated at 0.3 MMBtu/hr. The dehydration system (identified as emission source 0G01A) uses a regenerative glycol system to remove water in the incoming natural gas stream before it is sent to the compressors. Emissions from the two regenerators are vented to a 3.0 MMBtu/hr thermal oxidizer identified as emission source 0G02A. Each regenerator unit is equipped with a flash tank. Treated off gases from the flash tank are routed to a thermal oxidizer (emission source 0G02A). The emissions from each reboiler are vented to a separate stack.

Emission unit G23002 is associated with the following emission points (EP): T005A, T006A, T007A

Process: DS1 This process is used to remove excess moisture from natural gas that is transported via pipeline. This process consists of 2 absorber trains with a combined dehydration capacity throughput of 750 MMScf/day combined. There is no emission point for this process.

#### Title V/Major Source Status

TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C is subject to Title V requirements. This determination is based on the following information:

Facility is major for Carbon monoxide and Nitrogen Oxide emissions.

## **Program Applicability**

The following chart summarizes the applicability of TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C with regards to the principal air pollution regulatory programs:

**Regulatory Program** 

**Applicability** 



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PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

#### NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAOS)

for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA)

which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to

be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's



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(hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

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

#### **Compliance Status**

Facility is in compliance with all requirements.

#### SIC Codes

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

of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code Description

4922 NATURAL GAS TRANSMISSION

## **SCC Codes**

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents

a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code Description

2-02-002-01	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - NATURAL GAS
	Turbine
2-02-002-53	INTERNAL COMBUSTION ENGINES - INDUSTRIAL
	INDUSTRIAL INTERNAL COMBUSTION ENGINE -
	NATURAL GAS
	INTERNAL COMBUSTION ENGINE-INDUSTRIAL:
	NATURAL GAS: 4-CYCLE RICH BURN
3-10-002-27	OIL AND GAS PRODUCTION
	OIL AND GAS PRODUCTION - NATURAL GAS
	PRODUCTION
	OIL AND GAS PRODUCTION GLYCOL DEHYDRATOR



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REBOILER STILL STACK

#### **Facility Emissions Summary**

In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name		PTE			
		lbs/yr			Range	
000630-08-0	CARBON MONOXIDE	·		>= 50 tpy	tpy but <	100
0NY210-00-0	OXIDES OF NITROGEN	167540		122		
0NY998-00-0	VOC			>= 10 tpy	tpy but <	25

## NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

#### Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

- (a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;
  - (2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;
  - (3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the



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permit; and

renewal application.

stay any permit condition.

- (4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- (c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.
- Item B: Public Access to Recordkeeping for Title V Facilities 6 NYCRR 201-1.10(b)

  The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to

Item C: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.2(a)(4)

6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.2(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- Item E: Requirement to Comply With All Conditions 6 NYCRR Part 201-6.4(a)(2)

  The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit
- Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements 6 NYCRR Part 201-6.4(a)(3)

  This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not
- Item G: Cessation or Reduction of Permitted Activity Not a Defense 6 NYCRR 201-6.4(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation



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or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

#### Item H: Property Rights - 6 NYCRR 201-6.4(a)(6)

This permit does not convey any property rights of any sort or any exclusive privilege.

#### Item I: Severability - 6 NYCRR Part 201-6.4(a)(9)

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

# Item J: Permit Shield - 6 NYCRR Part 201-6.4(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

#### Item K: Reopening for Cause - 6 NYCRR Part 201-6.4(i)

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

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 2 01-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the



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emissions standards or other terms or conditions of the permit.

- iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.
- iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

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

#### Item L: Permit Exclusion - ECL 19-0305

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

#### Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)

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

#### NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

## Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a



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permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

## **Regulatory Analysis**

Location Facility/EU/EP/Process/I	Regulation ES	Condition	<b>Short Description</b>
FACILITY	ECL 19-0301	43	Powers and Duties of the Department with respect to air pollution control
T-23001	40CFR 60-GG.332(a)(2)	42	NOx Standard units >=10 and <=100 (mmBtu/hr) or with a base load <= 30 MW and 100 mmBtu/hr.
FACILITY	40CFR 60-GG.334(h)(3)	29	Allowance not to monitor sulfur or nitrogen for natural
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4233(e)	3 -21, 3 -22, 3 23	- Emission limits for IC Engines > 100 HP
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4234	3 -24	Time period facility is subject to Subpart JJJJ
1- AUX01/AUX2A/AX2/AUX02	40CFR 60- JJJJ.4243(b)(2	3 -25	Maintenance plan and testing
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4243(d)	3 -26, 3 -27	Stationary Spark Ignition IC Engines - Emergency Engine Operation
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4244	3 -28	Test methods and procedures
1- AUX01/AUX2A/AX2/AUX02	40CFR 60- JJJJ.4245(a)(1	3 -29	Notification, reporting and recordkeeping requirements
1- AUX01/AUX2A/AX2/AUX02	40CFR 60- JJJJ.4245(a)(2	3 -30	Notifications, reporting and recordkeeping requirements
1- AUX01/AUX2A/AX2/AUX02	40CFR 60- JJJJ.4245(a)(4	3 -31	Notification, reporting and recordkeeping requirements
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4245(b)	3 -32	requirements Spark Ignition Stationary Combustion Engines - Recordkeeping
1- AUX01/AUX2A/AX2/AUX02	40CFR 60-JJJJ.4245(d)	3 -33	Performance test requirements
FACILITY	40CFR 60-JJJJ.4246	3 -15	Applicability of Subpart A provisions
T-23001/-/TUR/0T05A	40CFR 60-KKKK.4320(a)	1 -2	Stationary Combustion



Turbine NSPS - Table

# New York State Department of Environmental Conservation Permit Review Report

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m 22001 / /mrm /omoca	40GED 60 WWW 4220	1	F	1 NOx emission limits
1-23001/-/10R/0106A	40CFR 60-KKKK.4330	Τ	-5	Stationary Combustion
				Turbine NSPS - SO2
m 22001 / /min /omoca	40GED 60 KKKK 4240(=)	-		emission limits
T-23001/-/TUR/0T06A	40CFR 60-KKKK.4340(a)	Τ	- 6	Stationary Combustion
				Turbine NSPS -
				Continuous compliance
m 22001 / /mrm /omora	40GED 60 WWW 4265(=)	1	2	with NOx limit
1-23001/-/10R/0105A	40CFR 60-KKKK.4365(a)	Τ	- 3	Stationary Combustion Turbine NSPS -
				Exemption from
				monitoring total
				sulfur content of
				fuel
T-23001/-/TUR/0T05A	40CFR 60-KKKK.4400(a)	1	-4	Stationary Combustion
1 23001, , 1011, 010311	100111 00 1111111111111111100(4)	_	-	Turbine NSPS -
				Performance test
				methods
1-	40CFR 63-ZZZZ.6590(c)	3	-34	Reciprocating
AUX01/AUX2A/AX2/AUX02				Internal Combustion
				Engine (RICE) NESHAP
				- Stationary RICE
				subject to
				Regulations under 40
				CFR Part 60
1-	40CFR 63-ZZZZ.6625(f)	3	-16	Reciprocating
AUX01/AUX1A/AUX/AUX01				Internal Combustion
				Engine (RICE) NESHAP
				- non-resettable hour
				meter for certain
				existing emergency
	10000 00 0000 (1)	_	4.5	engines
1-	40CFR 63-ZZZZ.6625(h)	3	-17	Reciprocating
AUX01/AUX1A/AUX/AUX01				Internal Combustion
				Engine (RICE) NESHAP
				- idling time at
1	40GED 62 BEEF 66EE (-)	2	1.0	startup
1- AUX01/AUX1A/AUX/AUX01	40CFR 63-ZZZZ.6655(e)	3	-18	Reciprocating Internal Combustion
AUXUI/AUXIA/AUX/AUXUI				Engine (RICE) NESHAP
				- maintenance plan
				records that must be
				kept
1-	40CFR 63-ZZZZ.6655(f)	3	-19	Reciprocating
AUX01/AUX1A/AUX/AUX01		3	13	Internal Combustion
1101101, 11011111, 11011, 1101101				Engine (RICE) NESHAP
				- Recordkeeping
				requirements
1-	40CFR 63-ZZZZ.6660	3	-20	Reciprocating
AUX01/AUX1A/AUX/AUX01				Internal Combustion
				Engine (RICE) NESHAP
				- record retention
FACILITY	40CFR 68	19		Chemical accident
				prevention provisions
FACILITY	40CFR 82-F	20		Protection of
				Stratospheric Ozone -
				recycling and
				emissions reduction
FACILITY	6NYCRR 200.6	1		Acceptable ambient
	61W16DD 000 -	_		air quality.
FACILITY	6NYCRR 200.7	9		Maintenance of
DACITION	CNVCDD 201 1 4	4.4	2 26	equipment.
FACILITY	6NYCRR 201-1.4	44	, 3 -36	Unavoidable



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FACILITY FACILITY	6NYCRR 201-1.7 6NYCRR 201-1.8	3 -6 11	noncompliance and violations Recycling and Salvage Prohibition of reintroduction of collected contaminants to the
FACILITY	6NYCRR 201-3.2(a)	3 -7	air Exempt Activities -
FACILITY	6NYCRR 201-3.3(a)	3 -8	Proof of eligibility Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	22, 23, 30, 31	Title V Permits and the Associated Permit
FACILITY	6NYCRR 201-6.4(a)(4)	3 -9	Conditions General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	3 -1	General Conditions -
FACILITY	6NYCRR 201-6.4(a)(8)	3 -10	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	3 -2	Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.4(c)(2)	3 -3	Records of Monitoring, Sampling
FACILITY	6NYCRR 201- 6.4(c)(3)(ii	3 -4	and Measurement Reporting Requirements - Deviations and
FACILITY	6NYCRR 201-6.4(d)(4)	3 -12	Noncompliance Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(e)	3 -5	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)(6)	3 -11	Off Permit Changes
FACILITY	6NYCRR 201-7.1	3 -13, 3 -14	Emission Capping in
FACILITY	6NYCRR 202-1.1	18	Facility Permits Required emissions
			tests.
FACILITY	6NYCRR 202-2.1	6	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	7	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 211.1	27	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.2	45	General Prohibitions - visible emissions limited.
G-23002	6NYCRR 212.9(b)	3 -35	General Process Emission Sources - tables
FACILITY	6NYCRR 215.2	8	Open Fires - Prohibitions
FACILITY	6NYCRR 227-1.3(a)	28	Smoke Emission Limitations.
T-23001	6NYCRR 227-2.4(e)(1)	1 -7, 1 -8	Simple cycle combustion turbines.
FACILITY	6NYCRR 231-6.1	3 -14	Applicability



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## **Applicability Discussion:**

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

#### ECL 19-0301

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

#### 6 NYCRR 200.6

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

## 6 NYCRR 200.7

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

#### 6 NYCRR 201-1.4

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

## 6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

#### 6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

#### 6 NYCRR 201-3.2 (a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

#### 6 NYCRR 201-3.3 (a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

## 6 NYCRR Subpart 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe



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all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

#### 6 NYCRR 201-6.4 (a) (4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

## 6 NYCRR 201-6.4 (a) (7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

## 6 NYCRR 201-6.4 (a) (8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

#### 6 NYCRR 201-6.4 (c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

## 6 NYCRR 201-6.4 (c) (2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

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

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

## 6 NYCRR 201-6.4 (d) (5)

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

## 6 NYCRR 201-6.4 (e)

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

# 6 NYCRR 201-6.4 (f) (6)

This condition allows changes to be made at the facility, without modifying the permit, provided the



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changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

#### 6 NYCRR 202-1.1

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

#### 6 NYCRR 202-2.1

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

## 6 NYCRR 202-2.5

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

#### 6 NYCRR 211.2

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

## 6 NYCRR 215.2

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

## 40 CFR Part 68

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

## 40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

#### **Facility Specific Requirements**

In addition to Title V, TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C has been determined to be subject to the following regulations:

#### 40 CFR 60.332 (a) (2)

This regulation provides the equation to be used to determine the allowable emissions of oxides of nitrogen (NOx) from a gas turbine with a heat input greater than 10 million BTU per hour and less than 100 million BTU per hour.



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#### 40 CFR 60.334 (h) (3)

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

#### 40 CFR 60.4233 (e)

This regulation sets the emission limit for internal combustion engines greater than 100 horsepower.

#### 40 CFR 60.4234

This regulation requires the owners and operators of stationary spark iginted internal combustion engine (SI ICE) to operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

## 40 CFR 60.4243 (b) (2) (i)

This regulation requiures the permit holder to keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

#### 40 CFR 60.4243 (d)

These conditions state the hour limits for emergency engines operating in nonemergency engine situations

#### 40 CFR 60.4244

This regulation specifies the test methods and procedures to be used by owners or operators of spark iginted internal combustion engines.

# 40 CFR 60.4245 (a) (1)

This regulation requires the owners or operators of stationary SI ICEs to keep a record of all notifications submitted to comply with Subpart JJJJ.

## 40 CFR 60.4245 (a) (2)

This regulation requires the owner or operator of a stationary SI ICE to keep records of all maintenance performed on the engine.

#### 40 CFR 60.4245 (a) (4)

This regulation requires documentation that the engine meets the emission standards if the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2).



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40 CFR 60.4245 (b)

## 40 CFR 60.4245 (d)

Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

#### 40 CFR 60.4246

This regulation specifies that the following provisions of 40 CFR 60 Subpart A apply to this facility: 60.1 through 60.12, 60.14 through 60.17 and 60.19.

40 CFR 60.4320 (a)

## 40 CFR 60.4330

This regulation specifies that the emission limit for sulfur dioxide from a stationary combustion turbine is 0.060 lb SO2/MMBtu heat input.

#### 40 CFR 60.4340 (a)

This condition specifies NOx annual tesitng requirement for turbines.

#### 40 CFR 60.4365 (a)

This section provides an exemption from monitoring total sulfur content of the fuel used by a facility.

#### 40 CFR 60.4400 (a)

This coindition specifies initial and subsequent NOx testig requirements.

#### 40 CFR 63.6590 (c)

This regulation states that an affected source that is a new or reconstructed stationary RICE located at an area source must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.



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## 40 CFR 63.6625 (f)

This condition reduces the emission of hazardous air pollutants by requiring existing emergency engines greater than or equal to 500 brake horsepower located at a major source of HAP emissions and existing emergency engines located at an area source of HAP emissions to install a non-resettable hour meter.

# 40 CFR 63.6625 (h)

This regulation requires the owner or operator of a reciprocating internal combustion engine, operating at a major source of hazardous air pollutants, to minimize the idling time of the engine at startup. Startup time is limited to 30 minutes or less.

#### 40 CFR 63.6655 (e)

This regulation sets forth the record keeping requirements for RICE subject to facility specific maintenance plans.

## 40 CFR 63.6655 (f)

This regulation requires the owner/operator of a reciprocating internal combustion engine to record the number of hours the engine has been used, in both emergency and non-emergency use.

#### 40 CFR 63.6660

This condition specifies how long the facility must keep records of the results of the monitoring that was done to prove that the engine(s) was meeting the emission limits in this rule.

#### 6 NYCRR 201-7.1

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

#### 6 NYCRR 211.1

This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.



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#### 6 NYCRR 212.9 (b)

This section refers to Table 2 which specifies the degree of control required for Gases and Liquid Particulate Emissions (Environmental Rating of A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D) but excluding Volatile Organic Compound Emissions in the New York City Metropolitan Area.

#### 6 NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

## 6 NYCRR 227-2.4 (e) (1)

Presumptive NOx RACT emission limits for simple cycle combustion turbines.

## 6 NYCRR 231-6.1

This section outlines the applicability of this Subpart.

# **Compliance Certification**

Summary of monitoring activities at TENNESSEE GAS PIPELINE CO COMPRESSOR STATION 230-C:

Location Facility/EU/EP/Process/ES	Cond I	No. Type of Monitoring
FACILITY	29	record keeping/maintenance procedures
1-AUX01/AUX2A/AX2/AUX02	3-21	intermittent emission testing
1-AUX01/AUX2A/AX2/AUX02	3-22	intermittent emission testing
1-AUX01/AUX2A/AX2/AUX02	3-23	intermittent emission testing
1-AUX01/AUX2A/AX2/AUX02	3-25	record keeping/maintenance procedures
1-AUX01/AUX2A/AX2/AUX02	3-26	monitoring of process or control device parameters
		as surrogate
1-AUX01/AUX2A/AX2/AUX02	3-27	monitoring of process or control device parameters
		as surrogate
1-AUX01/AUX2A/AX2/AUX02	3-29	record keeping/maintenance procedures
1-AUX01/AUX2A/AX2/AUX02	3 - 3 0	record keeping/maintenance procedures
1-AUX01/AUX2A/AX2/AUX02	3-31	record keeping/maintenance procedures
1-AUX01/AUX2A/AX2/AUX02	3-32	record keeping/maintenance procedures
T-23001/-/TUR/0T05A	1-2	intermittent emission testing
T-23001/-/TUR/0T06A	1-5	intermittent emission testing
T-23001/-/TUR/0T06A	1-6	record keeping/maintenance procedures
T-23001/-/TUR/0T05A	1-3	record keeping/maintenance procedures
1-AUX01/AUX1A/AUX/AUX01	3-16	record keeping/maintenance procedures
1-AUX01/AUX1A/AUX/AUX01	3-17	monitoring of process or control device parameters
		as surrogate
1-AUX01/AUX1A/AUX/AUX01	3-18	record keeping/maintenance procedures



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1-AUX01/AUX1A/AUX/AUX01 1-AUX01/AUX1A/AUX/AUX01 FACILITY FACILITY	3-19 3-20 23 3-4 3-5	record keeping/maintenance procedures
FACILITY	3-14	monitoring of process or control device parameters as surrogate
FACILITY	6	record keeping/maintenance procedures
G-23002	3-35	record keeping/maintenance procedures
FACILITY	28	monitoring of process or control device parameters as surrogate
T-23001	1-7	monitoring of process or control device parameters as surrogate
T-23001	1-8	intermittent emission testing

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## **Basis for Monitoring**

Most of the monitoring requirements contained in this permit are based on specific monitoring methods and observations as prescribed in the applicable rules. Facility specific monitoring conditions were written to assure that reliable information is obtained representing the facility's compliance status for the following issues:

Record keeping and Reporting - Conditions 3-4 & 3-5,: These are mandatory conditions that occur in every Title V permit regarding record keeping and reporting.

<u>Emission Statement - Condition 6</u>: This is a standard condition which requires the annual submission of a facility-wide emission statement to the Department.

Emergency Generator Exemption - Condition 21: This condition requires the operator to maintain records to show that the emergency generator was used less than 500 hours per year in order to document its eligibility for the exemption.

<u>Records Retention - Condition 23</u>: This condition allows for the retention of required records at an alternate facility since the permitted facility is usually unmanned and controlled remotely.

<u>Visible Emission Monitoring - Condition 28</u>: This condition requires monthly monitoring for visible emissions. This monitoring frequency is appropriate since the only source of visible emissions is from the combustion of natural gas which has a low likelihood of causing excessive visible emissions.

<u>Sulfur in fuel monitoring exemption - Condition 29</u>: This condition allows the operator to forego monitoring the sulfur content of the fuel as long as the fuel combusted in the turbines is natural gas. This allowance is per 40CFR60.334(h)(3), Subpart GG.

Reciprocating internal combustion engines (RICE) operational and maintenance requirements - Conditions 33 – 41, 3-16 through 3-20: These condition specifies the operational and maintenance procedures required under 40CFR63 Subpart ZZZZ for existing emergency and black start spark ignition stationary RICE located at an area source of HAP emissions. This rule applies to the existing (to be replaced) auxiliary generator at the facility.

Reciprocating internal combustion engines (RICE) operational and maintenance requirements - Conditions 3-21 through 3-32: These condition specifies the operational and maintenance procedures



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required under 40CFR03 Subpart JJJJ for new emergency spark ignition stationary RICE. This rule applies to the new auxiliary generator at the facility.

NOx (oxides of nitrogen) RACT (Reasonably Available Control Technology) Emission Limit - Condition 1-8 & 1-9: This condition contains the NOx RACT emission limit and maintenance requirements for the turbines. Compliance testing in 2005 & 2010 showed the turbines meeting the emission limit. Continued compliance will be assured via an ongoing maintenance and monitoring program.

<u>Turbine requirements – Conditions 1-2, 1-3, 1-6, 1-7:</u> These conditions specify the NOx limit and testing requirements for newly installed turbines subject to 40CFR60 Subpart KKKK. The NOx emission limit for this rule is more strict than the limit contained in 6NYCRR Part 227-2.

NOx Emission Cap – Condition 3-14: This condition contains a NOx emission cap for the facility. The turbines will not exceed an emission rate of 83.77 tons of NOx per 12 month period. This operational limitation will serve to cap the facility's net NOx emission increase below the 40 ton per year applicability threshold of 6NYCRR Part 231-6 New Source Review for the combined effect of both the Northeast Supply Diversification (NSD) Project and the Niagara Spur Loop Line (NSLL) Project. The emission cap value was calculated using the baseline actual emissions for the four existing turbines over the five year period immediately preceding the submission of the permit modification application. Keeping the net emission increase for the addition of two new turbines and removal of two existing turbines below the Part 231-6 applicability level of less than 40 tons per year created the need for a cap at the project emission potential level of 83.77 tons per year.

Dehydrator system control requirement – Condition 3-35: This condition describes how the dehy system will be controlled to meet the requirements of Table 2 of 6NYCRR Part 212.9 The system has a thermal oxidizer which will provide the required 99% destruction efficiency for benzene, which is an "A" rated contaminant and requires 99% removal at an uncontrolled emission rate of 1 pound per hour. Air dispersion modeling showed the system meets the DAR-1 short term and annual guidance concentrations (SGC & AGC) values.