Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Iroquois Pipeline Operating Company
Address	One Corporate Drive, Suite 600, Shelton, CT 06484
Equipment Location	78 High Meadow Road, Brookfield, CT 06804
Equipment Description	Solar Turbines Taurus 70 Turbine with SoLoNOx
Town-Permit Numbers	028-0028
Premises Number	0049
Stack Number	2
Permit Issue Date	March 13, 2009
Modification Issue Date	April 14, 2014
Expiration Date	None

/s/ Anne Gobin for
Robert Klee
Commissioner

April 14, 2014
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. Equipment Design Specifications

1. Equipment Make and Model: Solar Turbines Taurus 70 gas compression turbine with SoLoNOx

2. Maximum Gross Heat Input (MMBtu/hr): 82.85

3. Maximum Fuel Firing Rate: 89.7 MSCFH @ 100% load, 0°F and LHV= 923.9 Btu/Scf
   79 MSCFH @ 100% load, 0°F and HHV= 1049 Btu/Scf
   Or
   By the equation developed based on the Maximum Fuel Firing Rate (@HHV) Vs Ambient Temperature Plot (Appendix A).

   $$Maximum\ Fuel\ Firing\ Rate = -0.0012T\text{^}2 - 0.0549T + 78.84$$ Eq.1
   Where T = Ambient Air Temperature (°F)

   ***Notes**:*

   a. *Maximum Fuel Firing Rate based on Eq.1 shall be used for Source Emission Monitoring Purposes.*
   b. *Calculated Maximum Fuel Firing Rate shall be adjusted to one decimal place.*

B. Control Equipment Design Specifications

1. Low NO_x Burner
   (SoLoNOx dry lean pre-mixed internal combustor)

   a. Make and Model: Solar SoLoNOx Technology
   b. Minimum Efficiency:
      i. Reduce NOx emissions to atmosphere to, at most, 15.0 ppmvd @ 15% O2
      ii. Reduce CO emissions to atmosphere to, at most, 25.0 ppmvd @ 15% O2

C. Stack Parameters

1. Minimum Stack Height (ft): 51

2. Minimum Exhaust Gas Flow Rate (acfm): 113,000

3. Stack Exit Temperature (°F): 847

4. Minimum Distance from Stack to Property Line (ft): 345

PART II. OPERATIONAL CONDITIONS

A. Operating Limits

1. Fuel Type(s): Pipeline Quality Natural Gas

2. Maximum Fuel Consumption over any Consecutive 12 Month Period: 785 MMSCF

PART III. CONTINUOUS EMISSION MONITORING REQUIREMENTS AND ASSOCIATED EMISSION LIMITS

CEM shall not be required for this source at this time to demonstrate compliance with emission limits contained in this permit.

PART IV. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time, as determined in accordance with the applicable averaging periods defined in Part III of this permit (if applicable) or as specified in an approved stack test protocol.

An exceedance of the emission limits in the table below shall not be deemed a "Federally Permitted Release," as that term is used in 42 U.S.C. 9601(10).

A. Criteria Pollutant Emission Limits

Criteria Pollutants	ppmvd @ 15% O_2	lb/hr	lb/MMBTU	tpy
$PM_{10}/PM_{2.5}$[1]		1.49	0.018	6.5
SO_x		0.07	0.001	0.3
NO_x	15	4.97	0.06	22.0
VOC		0.29	0.003	1.3
CO	25	5.04	0.06	22.1

B. Hazardous Air Pollutant Emission Limits

The emissions of this unit shall not exceed the Maximum Allowable Stack Concentration for any hazardous air pollutant emitted and listed in RCSA Section 22a-174-29. [State-Only Requirement]

C. Opacity

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

1 The Particulates (PM_{10} & $PM_{2.5}$) include filterable and condensable particulates.

PART IV. ALLOWABLE EMISSION LIMITS, continued

D. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:

1. $PM_{10}/PM_{2.5}$: Manufacturer's Recommended Emission Factor

2. NO_x, VOC, CO: Manufacturer's Guaranteed Data (VOC = manufacturer's UHC data multiplied by a 10% VOC fraction)

3. SO_x: Mass balance calculation based on Iroquois' fuel gas sulfur content and assuming that all elemental sulfur is converted to SO_2.

The above statement shall not preclude the commissioner from requiring other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART V. OPERATION AND MAINTENANCE REQUIREMENTS

A. The Permittee shall not operate this turbine in steady-state at less than 50% of the maximum load specified by the manufacturer.

B. The Permittee shall not operate the unit more than 15 minutes at less than 50% load.

C. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

D. The Permittee shall operate and maintain this 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.

E. The Permittee shall immediately institute shutdown of the turbine in the event a malfunction cannot be corrected within three hours.

F. During any air pollution emergency episode that occurs, the turbine shall be operated in accordance with the Updated Facility Emergency Episode Plans submitted to the Department, pursuant to RCSA §22a-174-6.

PART VI. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall use a non-resettable totalizing fuel metering device to continuously monitor fuel feed to this permitted source.

2. The Permittee shall maintain an automated alarm system which is triggered when the unit operates at less than 55% of maximum load for more than 15 minutes.

B. Record Keeping

1. The Permittee shall keep records of annual fuel consumption. Annual fuel consumption shall be based on any consecutive 12 month time period and shall be determined by adding the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.

PART VI. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, continued

2. The Permittee shall calculate and record the monthly and consecutive 12 month PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, and VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

3. The Permittee shall keep records of each occurrence and duration of any startup, shutdown, or malfunction in the operation of the unit or any malfunction of the air pollution control equipment. [40 CFR §60.7(b)]

   Such records shall contain the following information:
   a. type of event (startup, shutdown, or malfunction);
   b. date of event; and
   c. duration of event (minutes)

4. The Permittee shall keep records of all exceedances of any operating parameters. Such records shall include:
   a. the date and time of the exceedance;
   b. a detailed description of the exceedance; and
   c. the duration of the exceedance.

5. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

1. The Permittee shall notify the commissioner in writing of any malfunction of the engine or the air pollution control equipment. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:

   a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
   b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.

2. The Permittee shall notify the commissioner in writing of any exceedance of any operating parameters no later than ten days after such exceedance commenced, and shall identify the cause or likely cause of such exceedance, all corrective actions and preventive measures taken with respect thereto.

PART VII. STACK EMISSION TEST REQUIREMENTS (Applicable if -X- Checked)

A. Stack emission testing shall be required for the following pollutant(s):

☒ PM_{10} ☐ SO_x ☒ NO_x ☒ CO ☐ VOC ☐ HAPs

B. The Permittee shall perform stack testing in accordance with the Department's latest Emission Test Guidelines available on the DEEP website.

PART VII. STACK EMISSION TEST REQUIREMENTS, continued

1. http://www.ct.gov/deep/lib/deep/air/compliance_monitoring/emission_test/emission_test_guidelines.pdf

2. Source must be operated at or above 90% of maximum fuel firing rate during stack testing as set forth in Part I.A of this permit.

C. Annual/biennial stack testing for NOx shall be performed to demonstrate compliance with the NOx emission limits in accordance with 40 CFR §60.4400.

D. The Permittee shall conduct stack emission testing for PM_{10} within 180 days after the issuance of this permit modification (Application No. 201400329)

1. An acceptable EPA Reference Method shall be used to determine condensable particulate matter.

2. An acceptable EPA Reference Method shall be used to determine filterable particulate matter.

E. Recurrent stack testing for PM_{10} & CO shall be performed at least once every five years from the date of the previous stack test to demonstrate compliance with their respective limits with the following exceptions:

1. Recurrent stack testing may not be required for pollutants requiring CEMs. The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance

PART VIII. APPLICABLE REGULATORY REFERENCES

RCSA §§22a-174-3a; 22a-174-18; 22a-174-19; 22a-174-29(b); 22a-174-22
These references are not intended to be all inclusive - other sections of the regulations may apply.

PART IX. SPECIAL REQUIREMENTS

A. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §§22a-69-1 through 22a-69-7.4.

B. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times. (Applicable if -X- checked)

40 CFR Part 60, Subpart: ☐ Db ☐ Dc ☒ KKKK ☒ A ☐ None
Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

PART X. ADDITIONAL TERMS AND CONDITIONS

A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

B. Any representative of the Department may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.

C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.

D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.

E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.

G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.

H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

PART X. ADDITIONAL TERMS AND CONDITIONS, continued

I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

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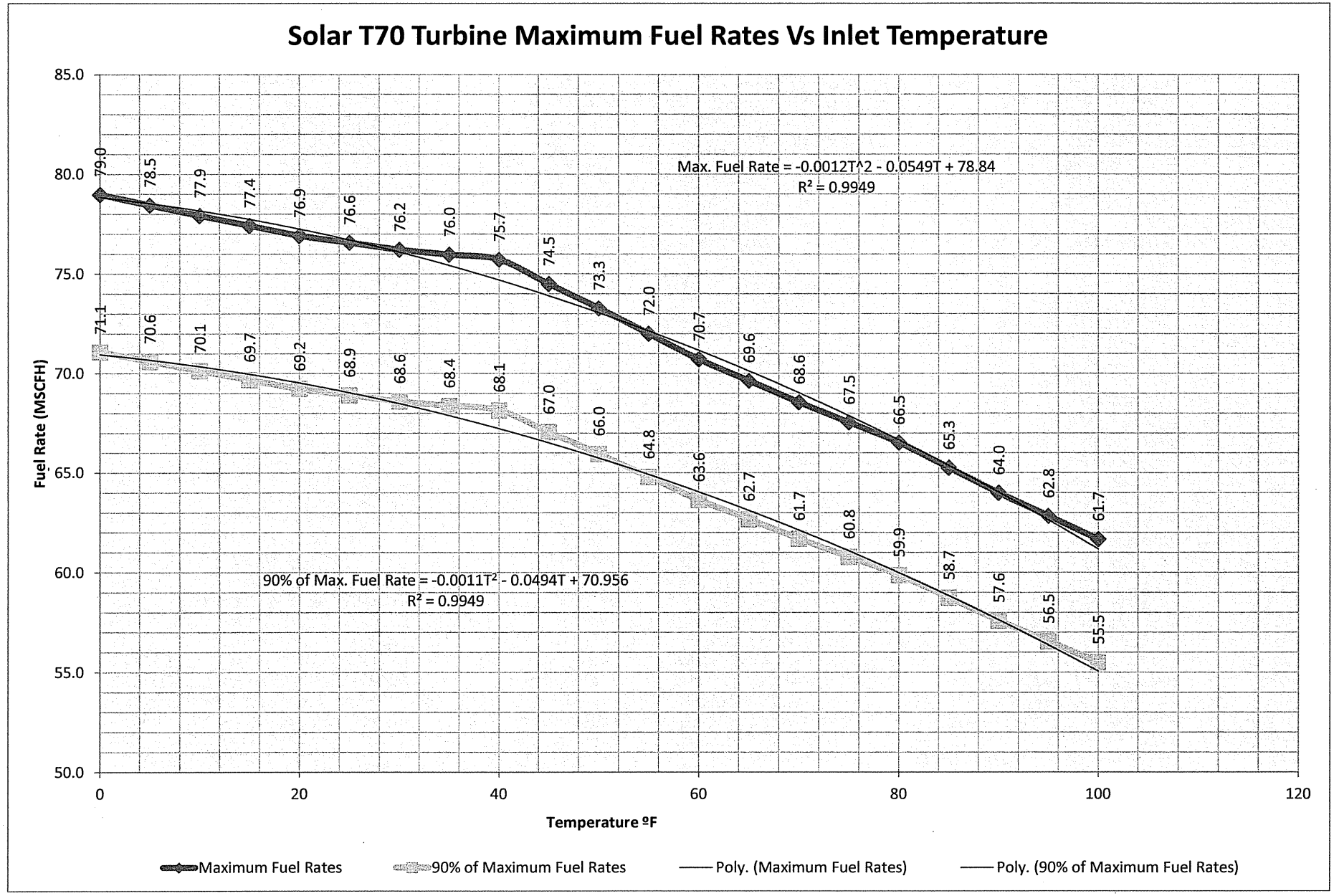
Appendices attached (Applicable if –X- checked):

☒ Maximum Fuel Firing Rate Vs Ambient Temperature Plot

☐ B Stack Emission Test Requirements

☐ C New Source Performance Standards

☐ E Control Equipment Specifications


Solar T70 Turbine Maximum Fuel Rates Vs Inlet Temperature
Max. Fuel Rate = -0.0012T^2 - 0.0549T + 78.84
R² = 0.9949
90% of Max. Fuel Rate = -0.0011T² - 0.0494T + 70.956
R² = 0.9949
Fuel Rate (MSCFH)
Temperature ºF
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
0
20
40
60
80
100
120
79.0
78.5
77.9
77.4
76.9
76.6
76.2
76.0
75.7
74.5
73.3
72.0
70.7
69.6
68.6
67.5
66.5
65.3
64.0
62.8
61.7
71.1
70.6
70.1
69.7
69.2
68.9
68.6
68.4
68.1
67.0
66.0
64.8
63.6
62.7
61.7
60.8
59.9
58.7
57.6
56.5
55.5
Maximum Fuel Rates
90% of Maximum Fuel Rates
Poly. (Maximum Fuel Rates)
Poly. (90% of Maximum Fuel Rates)

NSR Engineering Evaluation

CT Department of Energy and Environmental Protection
Bureau of Air Management

Company Name:	Iroquois Pipeline Operating Company	**Permit Nos.**:	028-0027 & -0028
Equipment Location:	78 High Meadow Road, Brookfield, CT 06804	**Date App Received**:	1/14/2014
Mailing Address:	One Corporate Drive, Shelton, CT 06484	**SIMS Nos.**:	201305783 & 201400477
Contact Person:	Mr. James T. Barnes	**Date Prepared**:	3/11/2014
Contact Title:	Environmental Health and Safety Manager	**Prepared By:**	Soumya Kallath
Contact Phone:	203-944-7023	**Single or Multiple Units:**	Multiple
Contact Email:	tim_barnes@iroquois.com	**Permit Type:**	Minor Mod (prepaid)
Ozone:	severe non-attainment	**Premises Size:**	Major
PM2.5:	attainment	**Equipment Size:**	Minor
Equipment Description	Solar Turbines T60 & T70 with SoLoNOx	**TV/GPLPE Permit No:**	028-0029-TV

Step 1: Complete all the fields above

Step 2: Generate Eval Step 3: Update Fields

Introduction

Reason for Application: On November 13, 2013 and January 14, 2014, Iroquois Pipeline Operating Company (Iroquois) submitted two application packages to modify NSR permit nos. 028-0027 & 028-0028 issued for two Solar Turbines T60 & T70 on March 7, 2007 and March 13, 2009, respectively. The Solar Turbine, Inc. natural gas fired combustion turbines with dry lean pre-mixed low emission (SoLoNOx^{TM}) combustors (EU-001 & EU-002) are used for recompressing the pipeline natural gas to ensure that it continues to move along the pipeline at serviceable pressure. The turbines are located at 78 High Meadow Road in Brookfield, CT.

Specifically, the applicant requested to replace the fixed value maximum fuel firing rates of combustion turbine units (EU-001 & EU-002) with a turbine performance curve in terms of ambient temperature.

Regulatory Applicability: The requested changes are considered a minor modification pursuant to RCSA §22a-174-2a(e)(2)(A) because the changes are not considered a non-minor modification or revision. Pursuant to RCSA §22a-174-2a(e)(6), it is the Commissioner's discretion to modify a permit without requiring a published notice, public comment or hearing. At this time, no public notice has been recommended for these permit modifications.

Discussion of Modification: On November 13, 2013, Iroquois submitted an application package to modify their Title V permit no. 028-0029-TV; however, the package consisted of a NSR permit modification form and a marked up copy of the Title V permit along with an application fee of $3,250. While reviewing the application it was found that the applications to modify NSR permits were also required along with the Title V permit

modification. The permittee resubmitted the applications along with a check of $250 to modify Title V permit and NSR permit no. 028-0028 on January 17, 2014. The Central Permit Processing Unit (CPPU) reassigned the initial application to NSR permit no. 028-0027 and redistributed the application fee between two NSR modification applications since the units located at the Brookfield site are individually minor sources. The minor modification application fee associated with less than major emitting equipment is $1750/permit in accordance with RCSA §22a-174-26 and CGS §22a-6f(d). The Title V permit modification will be processed separately.

Iroquois requested to include a chart plotting turbine fuel firing rates versus ambient temperature in the permits to allow stack testing at the turbine's maximum fuel firing rate based on variable ambient temperature as the Department requires the facility to stack test the turbine at 90% of the maximum fuel firing rate listed in the current air permit. The current permits list the maximum firing rate which corresponds to an ambient temperature of zero degrees Fahrenheit, which would not be achievable at warmer temperatures.

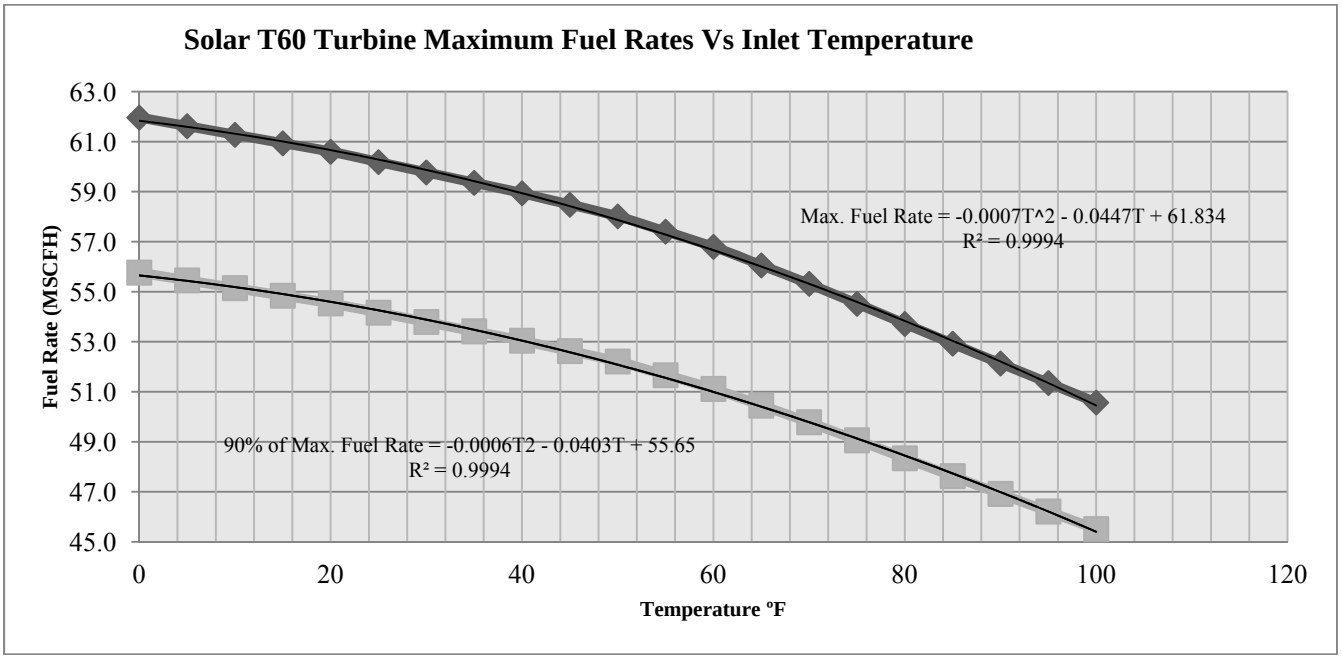
The requested charts are based on the data provided by Solar Turbines, Incorporated, the turbine manufacturer. The data consists of maximum fuel firing rates (BTUs per hour) for each turbine for each ambient temperature in 10 degree increments from zero to 100 degrees Fahrenheit. An email, received from Mr. Ronald E Schroeder, PE of Quonset Environmental LLC, on behalf of Iroquois on February 3, 2013, informed that Solar Turbines, Inc. had indicated that the fuel consumption rates for its Taurus 60 and 70 model turbines (permit nos. 028-0027 and 028-0028, respectively) were over-stated in the information they provided to Iroquois, on which the current air permit approvals were based (Attachment A). Since that time Solar has updated the models used to predict their turbine performance and emissions warranty data. Iroquois revised the chart based on this updated data and resubmitted it. The following are the updated turbine specifications and the developed polynomial equations corresponding to the plotted data:

Unit 1 (permit no. 028-0027):

Max Fuel Rate at 100% Load and Zero Degrees (Fahrenheit) = 62 MSCFH (65 MMbtu/hr) vs 72 MSCFH (65 MMBtu/hr) in the original permit

$$\text{Maximum Firing Rate(@HHV)} = -0.0007T^2 - 0.0447T + 61.834 \quad (R^2 = 0.9994)$$

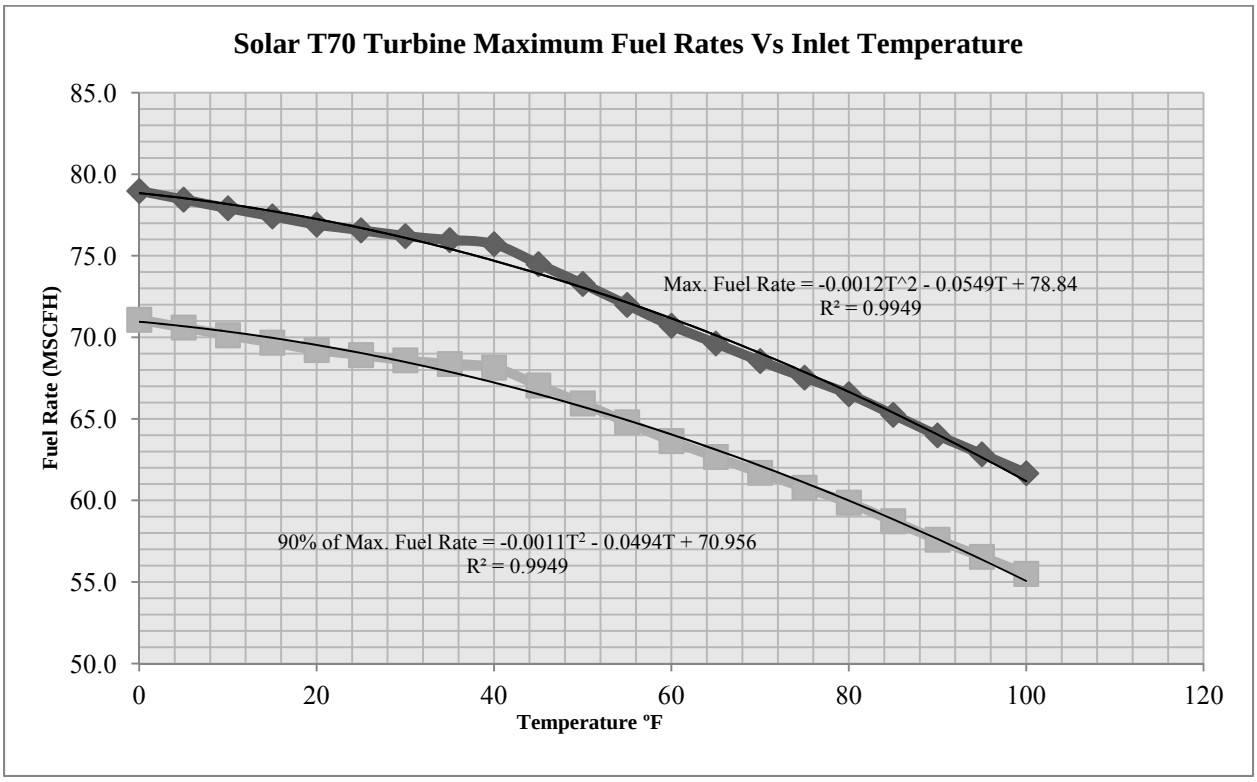
Where T = ambient temperature (degrees Fahrenheit)



Unit 2 (permit no. 028-0028):

Max Fuel Rate at 100% Load and Zero Degrees (Fahrenheit) = 79 MSCFH (82.85 MMBtu/hr) vs 100 MSCFH (88 MMBtu/hr) in the original permit

Maximum Firing Rate (@HHV) $= -0.0012T^2 - 0.0549T + 78.84$ ($R^2 = 0.9949$)



Correlation factor for both equations are closer to 1.0, representing a very reliable prediction of fuel rate based on the ambient temperature. The equations are added to the permit and the charts (as Appendices) can be referenced for more details.

Other Changes made to the permits:

1. Allowable Emissions Limits:

   An email received from Mr. Shroeder on behalf of Iroquois on March 10, 2014, indicated that Solar Turbine updated their recommended $PM_{10}/PM_{2.5}$ emission factors to 0.018 lb/ MMBtu from 0.042 lb/MMbtu on their Product Information Letter 171(Attachment B). Besides the change in PM emission limits in both permits , Iroquois updated NOx, CO and VOC emissions limits pertaining to EU-002 (permit no. 028-0028) as the design capacity of the unit has been changed from 88 MMBtu/hr to 82.85 MMBtu/hr. The following table illustrates the changes made to emission limits in the permits:

	Permit No. 028-0027			Permit No. 028-0028		
Pollutant	Existing Permit (tpy)	Modified Permit (tpy)	Change in Emissions (tpy)	Existing Permit (tpy)	Modified Permit (tpy)	Change in Emissions (tpy)
PM_{10}	11.2	5.1	-6.1	16.1	6.5	-9.6
$PM_{2.5}$	11.2	5.1	-6.1	16.1	6.5	-9.6
SO_x	0.2	0.2	0	0.3	0.3	0
NO_x	17.1	17.1	0	23	22.0	-1
VOC	1.0	1.0	0	1.3	1.3	0
CO	17.4	17.4	0	23.4	22.1	1.3

In accordance with the current permit no. 028-0027, the allowable emission limits are only applicable during the steady state condition; however, the permit did not state any emission limits during the transient conditions. Therefore, the permit condition has been changed such that the allowable emission limits under Part IV of both permits are applicable at any time. The Permittee informed that the units have been complying with these limits during startup and shutdown periods. It was discussed with Source Emissions Monitoring group and Ms. Cinda Lautenschlegar, Supervisor-SEM group agrees with the Permittee.

2. Stack Test Requirements:

   Since the Permittee requested to update the $PM_{10}/PM_{2.5}$ emission limits, a stack test requirement was added to Part VII of both permits in order to show compliance with the new emission limits. Permit no. 028-0028 is required to stack test every five years for CO and PM_{10} and the recent stack test was conducted on January 16, 2014. The facility reported that the PM_{10} emission levels were well below the emission limits; however, Iroquois only tested for PM_{10} filterable and did not conduct a test for PM_{10} condensable. The EPA now requires condensable PM_{10} fraction to be included in the measurements to determine compliance with the PM_{10} emissions limits (40 CFR §51.166).

   Iroquois will be conducting stack tests for PM_{10} on EU-001 and EU-002 within 180 days after the issuance of these modifications. EU-002 shall be tested at least once every five years if the results of the initial stack test for PM_{10} exceed 75% of the permitted PM_{10} emission limits.

   The permits were sent to Ms. Lautenschlegar for review and she suggested specifying in the permits that PM_{10} is the sum of PM_{10} filterable and PM_{10} condensable. She also suggested updating the maximum fuel firing rates based on higher heating value of the fuel. (Attachment C) Changes were made as requested.

3. Additional Record Keeping Requirements:

   Additional record keeping requirements are added to Part VI of both permits. Iroquois is now required to record each occurrence and duration of any startup, shutdown or malfunction in the operation of the unit; and exceedances of any operating parameters.

4. Operation and Maintenance Requirements:

   The operation and maintenance requirements under Part IX. Special Requirements in the current permits were moved to Part V of the modified permits. Iroquois informed that the facility has an automated alarm horn and strobe light that would be triggered if either turbine ever operate at less than 55% of maximum load for more than 15 minutes, and Iroquois has written procedures for operators to either speed up the turbine to increase the operating load or shut it down if the alarm is triggered. A condition was added to Part V of both permits to reference this system. Additional operation and maintenance language have been added to permit no. 028-0027 to make it consistent with permit no. 028-0028, the most recent permit.

5. MASC Requirements and Opacity:

   The general Maximum Allowable Stack Concentration (MASC) language has been added to permit no. 028-0027 as it contains MASC limits for each hazardous air pollutant. There were no changes to the HAP emissions. The general opacity language was also added to both permits.

6. Minimum Exhaust Flow Rate:

   The turbine minimum exhaust flow rates are recalculated and added to both permits based on the updated manufacturer's data.

7. Reporting Requirements:

   Reporting requirements pertaining to malfunction of the units or air pollution control equipment; and the exceedance of any operating parameters are added to Part VI of both permits.

Ambient Air Quality Impact Analysis

Review Type	Conduct If…	Emissions/Analysis	Dates
Refined Modeling	…allowable emissions for all equipment being permitted contemporaneously exceed any of the limits to the right →	☐ $PM_{10} \geq 15$ TPY ☐ $SOx \geq 15$ TPY ☐ $PM_{2.5} \geq 10$ TPY ☐ $NOx \geq 40$ TPY ☐ $CO \geq 100$ TPY ☐ $Pb \geq 0.6$ TPY ☐ Total Dioxins ≥ 0.6E-7 TPY	Date Sent: Date Approved:
Screening	…allowable emissions for all equipment being permitted contemporaneously fall into any of the ranges to the right →	☒ $3 \leq PM_{10} < 15$ TPY ☐ $3 \leq SOx < 15$ TPY ☒ $1 \leq PM_{2.5} < 10$ TPY ☐ $5 \leq NOx < 40$ TPY ☐ $5 \leq CO < 100$ TPY	Date Sent: March 11, 2014 Date Approved: See comment
Stack Height Review	…screening and refined modeling are not required.	Stack Height (SH): Building Height(BH): Building Width (BW): The equipment passes if any of the below are checked: ☐ SH > 10 meters ☐ SH > 1.3 * (BH) ☐ SH > 1.3 * (BW)	Date Approved:

Comments: Refined modeling was conducted when permit no. 028-0028 was originally issued since the PM emissions were greater than 15 TPY. Another refined modeling analysis is not required at this time as the updated PM emissions limits are less than 15 TPY. Additionally, there were no operation or physical changes to the units. An email was sent to Mr. Jude Catalano on March 11, 2014 to inquire about the screening analysis. He did not recommend a screening analysis at this time (Attachment D).

Permit Fee(s) **(Double Click to edit)**

# of Permits/Applications	2	$3,500
Application Fee Submitted	☑ Yes	-$1,880
Was Permit Fee paid with Application Fee?	☑ Yes	-1620

Additional Application Fees ($1750 Each)

	Quantity	
BACT Review	0	$0
LAER Review	0	$0

Money Owed	**$0**

Comments: Since these modifications have been prepaid in full, no tentative determination permits were generated. Iroquois reviewed the permits and concurs with them.

Compliance History Review

Was the SIMS Enforcement Report run and reviewed for this applicant?	Yes
Were other bureaus contacted to resolve any outstanding enforcement actions shown in the SIMS Report?	N/A
What is the date on the Enforcement Section's review of air compliance email?	1/2/2014
Was the compliance record reviewed in accordance with the Environmental Compliance History Policy?	Yes

Comments: The enforcement section did not find any reason to delay and/or deny the permit modification requests.

Approvals

Based on the information submitted by the applicant, this engineering evaluation and the compliance history review, the granting of permit nos. 028-0027 & 028-0028 is recommended for Iroquois Pipeline Operating Company.

/s/Soumya Kallath 4/9/14
Soumya Kallath
APCE

/s/Susan E. Amarello 4/10/14
Susan E. Amarello
Supervising APCE