ARCADIS
Infrastructure · Water · Environment · Buildings

ARCADIS U.S., Inc.
2 Executive Drive
Suite 303
Chelmsford
Massachusetts 01824
Tel 978.937.9999
Fax 978.937.7555
www.arcadis-us.com

Stephen Tomasik
Project Manager
Energy Projects and Management
Division of Environmental Permits
NYS Department of Environmental Conservation
625 Broadway - 4th Floor
Albany, New York 12233-1750

Steven Riva
Chief, Permitting Section
Air Programs Branch
United States Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007-1866

Date:
February 4, 2010

Contact:
Frederick.Sellars

Phone:
978-937-9999 ext. 317

Email:
Frederick.Sellars@
arcadis-us.com

Our ref:
CO001447.0003.00004

Subject:
Additional Information to Supplement PSD Air Permit Application and State Air Facility Permit Application (#3-1326-00275/00004)

Dear Mr. Tomasik and Mr. Riva:

On November 15, 2010, a letter was sent to the New York State Department of Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) responding to comments on the Prevention of Significant Deterioration (PSD) Air Permit Application and State Facility Air Permit Application (Air Permit Application) for the proposed Cricket Valley Energy Center (CVE). Comments were provided by NYSDEC and USEPA via the following correspondence:

- Letter from Steven C. Riva (USEPA) to Frederick Sellars, May 5, 2010
- Letter from Margaret Valis (NYSDEC) to Frederick Sellars, June 15, 2010
- Letter from Jeffrey Lawyer (NYSDEC) to Frederick Sellars, August 3, 2010

Most of the comments were fully addressed in the response letter. However, in our response letter, we also indicated that we would update the PSD Air Permit Application and the State Facility Permit Application with additional information including turbine vendor specifications, cumulative modeling for nitrogen dioxide

(NO_2), and updated state air permit forms. This package provides the information to supplement, and in some cases supplant, information provided in the Air Permit Application for CVE. In a conversation with Jeffrey Lawyer on January 4, 2011, he agreed that he would accept an updated version of the air resources section of the Draft Environmental Impact Statement (DEIS), rather than updated pages of the Air Permit Application. An updated version of the DEIS has been electronically submitted to Stephen Tomasik at NYSDEC on February 4, 2011 as a separate submittal. However, a copy of the updated section is also provided as Attachment 1 with this letter. There is additional updated information associated with the Air Permit Application, such as state air permit forms, that are not included in the air section of the DEIS. This updated information is also provided with this letter as described below

Revisions to Section 4.0 of the DEIS

A pre-review draft of Section 4.0 of the DEIS (Air Resources), with associated appendices, was originally submitted to Stephen Tomasik for NYSDEC review on October 22, 2010. Many of the agency comments referenced above had been addressed in this version. However, since that time, the DEIS section has been updated to reflect minor changes to project emissions, other text additions, remaining regulatory comments and a new regulatory requirement for a greenhouse Gas (GHG) Best Available Control Technology (BACT) analysis. Also, as indicated in our agency response letter, Section 4.0 of the DEIS has been updated to include cumulative modeling demonstrating compliance with the 1-hour nitrogen dioxide (NO_2) National Ambient Air Quality Standard (NAAQS).

Text and Emissions Updates

The project-related emissions and other DEIS text has been updated to accommodate additional changes to the project design. Specifically, the following changes have been made:

- Final selection of a combustion turbine vendor and model number, General Electric 7FA.05;
- Minor changes to start-up and shutdown emissions;
- Addition of a fourth black start generator;
- Addition of a minimum combustion turbine load case at 36 percent;
- Minor changes to tables updating the NAAQS for 1-hour NO_2, lead and 1-hour Sulfur Dioxide (SO_2), and;

- Inclusion of 1-hour SO_2 in the air quality modeling analysis.

1-hour NO_2 Cumulative Modeling

In response to a comment from USEPA, a cumulative modeling analysis has been conducted for 1-hour NO_2. With the assistance of the USEPA, NO_2 interactive modeling runs for CVE were made with the BETA version of AERMOD, B10363. The results demonstrate clearly that the CVE project does not contribute significantly to any predicted NAAQS violations.

Model runs to demonstrate compliance were performed in the following manner:

1) AERMOD was run for the CVE project (worst-case scenario) to identify receptors with predicted impacts above Significant Impact Levels (SILs).
2) Interactive model runs were performed for the full modeling domain, including all 692 receptors where CVE has predicted impacts above the 1-hour NO_2 SIL.
3) Receptors with predicted impacts above the NAAQS of 188 $\mu g/m^3$ were identified. Of the 692 receptors where the CVE project showed SIL exceedences for any hour modeled predicted 5-yr 98^{th} percentile concentrations at 681 receptors were below 185 $\mu g/m^3$., Five receptors had 5-year average predicted 8^{th} highest daily maximum 1-hour concentrations, including background that exceeded the NAAQS. The highest predicted 98^{th} percentile value at any of these receptors was 214 $\mu g/m^3$. Another six receptors had predicted 5-yr 98^{th} percentile concentrations below 188 $\mu g/m^3$, but above 185 $\mu g/m^3$, for a total of 11 receptors.
4) For those 11 receptors, predicted impacts were evaluated with and without the CVE emission sources. Predicted concentrations were compared for all days with at least one maximum 1-hour concentration exceeding the NAAQS, using MAXDAILY output tables. Between 33 and 87 exceedances were predicted at each of the 11 receptors, for a total of 499 exceedance-days.
5) For those 499 exceedance-days, the largest difference in the predicted daily maximum 1-hr NO_2 concentration at any receptor, with and without CVE's contribution, is 0.17 $\mu g/m^3$, far below the interim SIL of 7.5 $\mu g/m^3$.

This analysis demonstrates that none of the predicted 499 maximum daily 1-hour concentrations above the NAAQS at any of these11 receptors involved a significant contribution from the CVE project. Thus, the project will not contribute significantly to any predicted violation of the 1-hour NAAQS.

GHG BACT Analysis

On April 2, 2007, the Supreme Court found that GHGs, including carbon dioxide, are air pollutants covered by the Clean Air Act (CAA). On May 13, 2010, the USEPA issued a final rule (called the "Tailoring Rule") that establishes an approach to greenhouse gas emissions from stationary sources under the CAA. This final rule "tailors" the requirements of the CAA permitting program to limit which facilities will be required to obtain PSD permits. The CAA permitting program emissions thresholds for criteria pollutants are 100 tons per year or 250 tons per year. While these thresholds are appropriate for criteria pollutants, they are not feasible for GHG emissions as they are emitted in much greater quantities.

Beginning January 2, 2011, sources subject to the PSD program (i.e., new major sources such as CVE) are subject to permitting requirements for their GHG emissions under PSD. For these projects, those with GHG emission increases of 75,000 tpy or greater are required to determine BACT for their GHG emissions.

NYSDEC adopted amendments to their regulations on December 29, 2010 to include the provisions of the Tailoring Rule as described above.

CVE has triggered major source thresholds of pollutants other than GHGs. In addition, potential emissions of GHGs from the project exceed the 75,000 tpy threshold described above. As such, PSD review is required for GHG emissions, including a BACT analysis. The DEIS (section attached) has been updated to include a BACT analysis for GHGs.

Updated Air Permit Application Forms

NYSDEC air permit application forms have been updated in response to comments from Jeffrey Lawyer. The updated forms are provided as Attachment 2 with this package. The forms have been marked to indicate which pages have updated information. Specifically the following changes have been made:

- The black start emergency generators and fire pump have been identified as emission sources and processes/emission points for these sources have been defined;
- Unique processes have been defined for each combustion turbine, and natural gas has not been repeated as a process within the same emission source, and;

- Equipment information such as turbine manufacturer, model number, exhaust flow rate and other parameters have been updated to reflect the final choice in turbine vendor.

Additional Information for Air Permit Application

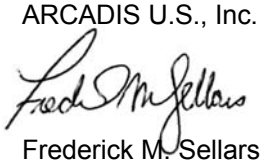
As mentioned previously, the Air Permit Application provided additional supporting documentation that was not included in the Air Resources section of the DEIS. The additional attached information is summarized below:

- Vendor information for fire pump, black start generators and auxiliary boiler
- Supporting Calculations for Modeling Results (provided on diskette)
    - Steady state
    - Startup/Shutdown plus auxiliary boiler
    - Auxiliary Boiler
    - Black Start Generator
    - Fire Pump
- Supporting Figures for Modeling Results
    - Land use Figures for AERSURFACE
    - 1-hour Carbon Monoxide (CO)
    - 8-hour CO
    - 1-hour NO_2
    - Annual NO_2
    - 24-hour Particulate Matter less than 2.5 microns ($PM_{2.5}$)
    - Annual $PM_{2.5}$
    - 24-hour Particulate Matter less than 10 microns (PM_{10})
    - 1-hour SO_2
    - 3-hour SO_2
    - 24-hour SO_2
    - Annual SO_2
- Computer Diskette with Modeling Files for 1-hour NO_2 cumulative modeling.

If you have any questions or comments regarding this supplemental information, please do not hesitate to contact me at 978-937-9999 ext 317 or frederick.sellars@arcadis-us.com. Thank you for your review of the CVE Air Permit Application. We look forward to continuing to work with you on this important project.

Sincerely,

ARCADIS U.S., Inc.



Frederick M. Sellars
Vice President

Copies:
M. Valis, NYSDEC
J. Lawyer, NYSDEC
J. Aherns, CVE

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ATTACHMENT 1

Redacted - See DEIS Section 4 for most recent version of the Air Resources Section

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ATTACHMENT 2

New York State Department of Environmental Conservation
Air Permit Application

DEC ID	APPLICATION ID	OFFICE USE ONLY
- -	- /	/ /

Section I - Certification

Title V Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information [required pursuant to 6 NYCRR 201-6.3(d)] I believe the information is, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Responsible Official	Title
Signature	Date / /

State Facility Certification

I certify that this facility will be operated in conformance with all provisions of existing regulations.

Responsible Official Thomas E. Spang	Title President
Signature	Date 3 / 8 / 10

Section II - Identification Information

Title V Facility Permit ❑ New ❑ Significant Modification ❑ Administrative Amendment ❑ Renewal ❑ Minor Modification General Permit Title:	State Facility Permit ☒ New ❑ Modification General Permit Title:
☒ Application involves construction of new facility	❑ Application involves construction of new emission unit(s)

Owner/Firm

Name Cricket Valley Energy Center, LLC			
Street Address 31 Milk St, Suite 1001			
City Boston	State MA	Country	Zip 02109
Owner Classification ❑ Federal ☒ Corporation/Partnership ❑ State ❑ Individual ❑ Municipal			Taxpayer ID 2 7 0 6 0 5 4 9 8

Facility ❑ Confidential

Name Cricket Valley Energy	
Location Address 2241 NY Route 22	
❑ City / ☒ Town / ❑ Village Dover	Zip 12522

Project Description ☒ Continuation Sheet(s)

This application is for a new approximately 1,000 megawatt (MW) combined cycle electric generating facility, firing natural gas as the sole fuel of the combustion turbines, auxiliary boiler and heat recovery steam generator.

Owner/Firm Contact Mailing Address

Name (Last, First, Middle Initial) Sellars, Frederick M.			Phone No. (978) 937-9999 x317
Affiliation Arcadis, Permitting Consultant	Title Vice President		Fax No. (978) 937-7555
Street Address 2 Executive Drive, Suite 303			
City Chelmsford	State MA	Country	Zip 01824

Facility Contact Mailing Address

Name (Last, First, Middle Initial) De Meyere, Robert E.			Phone No. (617) 456-2214
Affiliation Cricket Valley Energy Center, LLC	Title Director, Development		Fax No. (617) 456-2201
Street Address 31 Milk St, Suite 1001			
City Boston	State MA	Country	Zip 02109

DEC ID
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Section II - Identification Information

Project Description (continuation)

The project is comprised of three combined cycle units. Each unit consists of one F-Class Technology combustion turbine generator (CTG), one heat recovery steam generator (HRSG) with supplemental natural gas duct firing, one steam turbine generator (STG), and an associated air cooled condenser (ACC). The project is intended to operate as a base load facility and is proposing to operate 8,760 hours per year, incorporating a range of load conditions. In addition to the combustion turbines, the facility will contain ancillary combustion equipment including one natural gas fired auxiliary boiler, one diesel fired fire pump engine and four diesel fired black-start generators.

A detailed description of the proposed project is provided in Section 2.0 of the document.

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
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Section III - Facility Information

Classification					
☐ Hospital	☐ Residential	☐ Educational/Institutional	☐ Commercial	☐ Industrial	☒ Utility

Affected States (Title V Only)				
☐ Vermont	☐ Massachusetts	☐ Rhode Island	☐ Pennsylvania	Tribal Land:_____
☐ New Hampshire	☐ Connecticut	☐ New Jersey	☐ Ohio	Tribal Land:_____

SIC Codes												
4911												

Facility Description ☒ Continuation Sheet(s)

The facility will consist of three combined cycle units. Each unit will fire natural gas exclusively and consist of one F-Class combustion turbine generator (CTG), a heat recovery steam generator (HRSG) with supplemental duct firing, and an associated...

Compliance Statements (Title V Only)

I certify that as of the date of this application the facility is in compliance with all applicable requirements: ☐ YES ☐ NO

If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this application (the 'NO' box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on page 8 of this form along with the compliance plan information required. For all emission units at this facility that are operating in compliance with all applicable requirements complete the following:

- ☐ This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those units referenced in the compliance plan portion of Section IV of this application.
- ☐ For all emission units, subject to any applicable requirements that will become effective during the term of the permit, this facility will meet all such requirements on a timely basis.
- ☐ Compliance certification reports will be submitted at least once a year. Each report will certify compliance status with respect to each requirement, and the method used to determine the status.

Facility Applicable Federal Requirements ☒ Continuation Sheet(s)

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	201	1						
6	NYCRR	201	2						
6	NYCRR	201	3	2					
6	NYCRR	201	3	3					

Facility State Only Requirements ☐ Continuation Sheet(s)

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	202	2						
6	NYCRR	207	2						
6	NYCRR	221	2						
6	NYCRR	272	2						

DEC ID
- -

Section III - Facility Information

Facility Description (continuation)

air cooled condenser (ACC). Additional equipment includes selective catalytic reduction (SCR) and oxidation catalyst systems; continuous emissions monitoring systems (CEMS); aqueous ammonia storage tanks; one natural gas fired auxiliary boiler; one diesel fire pump; four diesel black-start generators; and a water treatment system including a zero-liquid-discharge system.

The natural gas is assumed to have a higher heating value (HHV) of approximately 961 British thermal units (Btu) per standard cubic foot (SCF) and a sulfur content of 0.5 grains per 100 SCF. The duct burners which supply additional energy to each HRSG will be natural gas fired and have an input capacity of 379.3 MMBtu/hr at the HHV for natural gas at ISO conditions.

Additional description of the intended operation of each piece of equipment, including proposed hours of operation, pollutant control technologies, and potential emissions is included in the narrative accompanying these application forms.

DEC ID
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Section III - Facility Information

Facility Applicable Federal Requirements (continuation)

Title	Type	Part	Sub Part	Section	Sub	Paragraph	Sub	Claus	Sub
6	NYCRR	201	6	1	a				
6	NYCRR	201	6	1	b				
6	NYCRR	201	6	3					
6	NYCRR	201	6	4					
6	NYCRR	201	6	5					
6	NYCRR	201	6	6					
6	NYCRR	202	1	1					
6	NYCRR	202	1	2					
6	NYCRR	202	1	3					
6	NYCRR	202	1	5					
6	NYCRR	211	2						
6	NYCRR	211	3						
6	NYCRR	215							
6	NYCRR	225	1	2	a				
6	NYCRR	225	1	2	d				
6	NYCRR	225	1	6	a				
6	NYCRR	225	1	6	b				
6	NYCRR	225	1	8	a				
6	NYCRR	225	1	8	c				
6	NYCRR	225	1	8	d				
6	NYCRR	227	2						
6	NYCRR	231	3						
6	NYCRR	231	4						
6	NYCRR	231	5						
6	NYCRR	231	7						
6	NYCRR	231	11	1					
6	NYCRR	231	12						
6	NYCRR	231	13	1					
6	NYCRR	231	13	5					
6	NYCRR	231	13	6					
40	CFR	82	F						
40	CFR	60	A	7					
40	CFR	60	A	8					
40	CFR	60	A	11					
40	CFR	60	A	3					
40	CFR	60	A	19					
40	CFR	52							
40	CFR	72							

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
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Section III - Facility Information (continued)

Facility Compliance Certification

☒ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	211	3						

		CAS No.	Contaminant Name
☒ Applicable Federal Requirement ☐ State Only Requirement	☐ Capping	- -	Opacity

Monitoring Information

☒ Ambient Air Monitoring ☐ Work Practice Involving Specific Operations ☐ Record Keeping/Maintenance Procedures

Description

No person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity. As a natural gas fired facility, opacity from the equipment will not exceed these limits. Compliance with this requirement will be demonstrated via visual inspection in accordance with 40 CFR Part 60, Method 9.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Method 9

Parameter Code	Parameter Description	Manufacturer Name/Model No.
01	Opacity	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
20	0	136	Percent

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
18	6-minute avg (Method 9)	4	As required.	10	Upon request.

Facility Emissions Summary

☒ Continuation Sheet(s)

CAS No.	Contaminant Name	PTE (lbs/yr)	PTE Range Code	Actual (lbs/yr)
NY075 - 00 - 5	PM-10		G	
NY075 - 00 - 0	PARTICULATES		G	
7446 - 09 - 5	SULFUR DIOXIDE		F	
NY210 - 00 - 0	OXIDES OF NITROGEN		H	
630 - 08 - 0	CARBON MONOXIDE		H	
7439 - 92 - 1	LEAD		A	
NY998 - 00 - 0	VOC		G	
NY100 - 00 - 0	HAP		C	
7664- 93 - 9	SULFURIC ACID MIST		C	
106 - 99 - 0	1,3 -Butadiene		Y	
75 - 07 - 0	Acetaladehyde		Y	
107 - 02 - 8	Acrolein		Y	
120 - 12 - 7	Anthracene		Y	

DEC ID
- -

Section III - Facility Information

Facility Emissions Summary (continuation)

CAS No.	Contaminant Name	PTE (lbs/yr)	PTE Range Code	Actual (lbs/yr)
7664 - 41 - 7	Ammonia		G	
71 - 43 - 2	Benzene		Y	
56 - 55 - 3	Benzo(a)anthracene		Y	
50 - 32 - 8	Benzo(a)pyrene		Y	
106 - 97 - 8	Butane		C	
218 - 01 - 9	Chrysene		A	
53 - 70 - 3	Dibenz(a,h)anthracene		A	
74 - 84 - 0	Ethane		D	
100 - 41 - 4	Ethylbenzene		Y	
50 - 00 - 0	Formaldehyde		Y	
110 - 54 - 3	Hexane		Y	
91 - 20 - 3	Napthalene		Y	
109 - 66 - 0	Pentane		C	
85 - 01 - 8	Phenanthrene		A	
130498 - 29 - 2	PAH		Y	
74 - 98 - 6	Propane		C	
115 - 07 - 1	Propylene		A	
75 - 56 - 9	Propylene Oxide		Y	
129 - 00 - 0	Pyrene		A	
108 - 88 - 3	Toluene		Y	
133 - 02 - 7	Xylene (Total)		Y	
07440 - 38 - 2	Arsenic		Y	
07440 - 39 - 3	Barium		A	
07740 - 41 - 7	Beryllium		Y	
07740 - 43 - 9	Cadmium		Y	
07740 - 47 - 3	Chromium		Y	
07740 - 48 - 4	Cobalt		Y	
07740 - 50 - 8	Copper		A	
07439 - 96 - 5	Manganese		Y	
07439 - 97 - 6	Mercury		Y	
07439 - 98 - 7	Molybdenum		A	
07440 - 02 - 0	Nickel		Y	
07782 - 49 - 2	Selenium		Y	
07440 - 62 - 2	Vanadium		A	
07440 - 66 - 6	Zinc		A	
- -				
- -				

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Section III - Facility Information

Facility Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	225	3						

☒ Applicable Federal Requirement ☐ State Only Requirement	☐ Capping	CAS No.	Contaminant Name
		7704-34-9	Sulfur

Monitoring Information

☐ Ambient Air Monitoring ☐ Work Practice Involving Specific Operations ☒ Record Keeping/Maintenance Procedures

Description

The combustion turbines at the facility will only utilize natural gas. Ancillary equipment at the facility will only utilize ULSD fuel. The ULSD will have a sulfur content no greater than 0.0015% sulfur by weight. The sulfur content of the fuel will be certified by the vendor and monitored by the facility.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	007	Parameter of process material	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.0015		57	Percent by weight.

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum - not to be exceeded	11	Per delivery	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

☐ Applicable Federal Requirement ☐ State Only Requirement	☐ Capping	CAS No.	Contaminant Name
		- -	

Monitoring Information

☐ Ambient Air Monitoring ☐ Work Practice Involving Specific Operations ☐ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Description

“ Continuation Sheet(s)

EMISSION UNIT U-0001 This generating unit will fire natural gas exclusively and consist of one CTG, one HRSG with supplemental duct firing, and an associated ACC. The auxiliary boiler and black start generators will also exhaust through this stack.

Building

“ Continuation Sheet(s)

Building	Building Name	Length (ft)	Width (ft)	Orientation
CTGEN01	Turbine Generation Building	670	100	0°
HRSG01	Heat Recovery Steam Generator Enclosure	128	160	90°
ACC01	Air Cooled Condenser	190	190	90°

Emission Point

“ Continuation Sheet(s)

EMISSION PT. EP001 No. 1 Combustion Turbine/HRSG, Auxiliary Boiler, 4 Black Start Generators

Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section	
					Length (in)	Width (in)
435	283	170	228	179	N/A	N/A
Exit Velocity (FPS)	**Exit Flow (ACFM)**	**NYTM (E) (KM)**	**NYTM (N) (KM)**	**Building**	**Distance to Property Line (ft)**	**Date of Removal**
70.2	1,193,469					N/A

EMISSION PT.

Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	**Exit Flow (ACFM)**	**NYTM (E) (KM)**	**NYTM (N) (KM)**	**Building**	**Distance to Property Line (ft)**	**Date of Removal**

Emission Source/Control

“ Continuation Sheet(s)

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
CT001	C	12/2011	3/2015	N/A			General Electric 7FA.05

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
2061	25	MMBtu/hr, HHV@ ISO conditions				

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
DB001	C	12/2011	3/2015	N/A			TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
379	25	MMBtu/hr, HHV@ ISO conditions				

DEC ID
- - -

Section IV - Emission Unit Information

EMISSION UNIT	Emission Source/Control (continuation)
U - 0 0 0 0 1	

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
DLN01	K	12/2011	3/2015	N/A	103	Dry Low NOx Burner	General Electric

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
SCR01		12/2011	3/2015	N/A	033	Selective Catlaytic Reduction	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OXC01		12/2011	3/2015	N/A	110	Catalytic oxidation	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
AUX01	C	12/2011	3/2015	N/A	102		TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
60	25	mmBtu/hr, HHV				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
LNB01	K	12/2011	3/2015	N/A	102	Low NOx Burner	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
FGR01	K	12/2011	3/2015	N/A	026	Flue Gas Recirculation	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
BSG01	C	12/2011	3/2015	N/A			Caterpillar

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
3	216	Megawatt				

DEC ID
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Section IV - Emission Unit Information

EMISSION UNIT	Emission Source/Control (continuation)							
U-00001								
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
BSG02	C	12/2011	3/2015	N/A			Caterpillar	
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
3	216	Megawatt						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
BSG03	C	12/2011	3/2015	N/A			Caterpillar	
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
3	216	Megawatt						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
BSG04	C	12/2011	3/2015	N/A			Caterpillar	
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
3	216	Megawatt						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units				Waste Feed		Waste Type	
	Code	Description			Code	Description	Code	Description

DEC ID
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Section IV - Emission Unit Information (continued)

Process Information

☒ Continuation Sheet(s)

EMISSION UNIT	U-0001		PROCESS	P01

Description

Process P01 represents natural gas firing in the Unit #1 F-class combustion turbine with and without supplemental duct firing. Dry low-NOx combustion technology and selective catalytic reduction will be used to control emissions of NOx from the process. An oxidation catalyst will be used to control emissions of CO and VOC. The natural gas HHV is assumed to be 966 Btu per standard cubic foot. Please see Section 2.0 of the application for a more detailed process description.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
2-01-002-01	2.76	24,135	0115	million cubic feet of natural gas

☐ Confidential ☒ Operating at Maximum Capacity ☐ Activity with Insignificant Emissions	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365		

Emission Source/Control Identifier(s)							
CT001	DLN01	SCR01	OXC01	DB001			

EMISSION UNIT			PROCESS	

Description

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity ☐ Activity with Insignificant Emissions	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)							

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DEC ID
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Section IV - Emission Unit Information

Process Information (continuation)

“ Continuation Sheet(s)

EMISSION UNIT	U - 0 0 0 0 1	PROCESS	P 0 2

Description

P02 represents natural gas combustion in the auxiliary boiler. The boiler has a maximum input capacity of 60 MMBtu/hr. Hours of operation for the boiler will be limited to 4500 hours per year. The natural gas higher heating value is assumed to be 961 Btu per standard cubic foot. Please see Section 2.0 of the application document for a more detailed process description.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
1-02-006-02	0.06	270	0115	million cubic feet of natural gas

“ Confidential
X Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

AUX01	LNB01	FGR01					

EMISSION UNIT	U - 0 0 0 0 1	PROCESS	P 0 3

Description

P03 represents diesel oil combustion in the black start generators. There will be a total of four black start generators each with a maximum output rating of 3,000 kW.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
2-02-0001-02	0.213	106.5	76	1,000 gallons

“ Confidential
X Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		
4	125		

Emission Source/Control Identifier(s)

BSG01	BSG02	BSG03	BSG04				

DEC ID
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Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements ‘ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4320					
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4330	a				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4333	a				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4340	b				

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements ‘ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00001	EP001	P01	CT001	6	NYCRR	242	1	6					
U-00001	EP001	P01	CT001	6	NYCRR	242	1	7					
U-00001	EP001	P01	CT001	6	NYCRR	242	2						
U-00001	EP001	P01	CT001	6	NYCRR	242	3						

Emission Unit Compliance Certification

X Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

X Applicable Federal Requirement ‘ State Only Requirement ‘ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

X Continuous Emission Monitoring
‘ Intermittent Emission Testing
‘ Ambient Air Monitoring
‘ Monitoring of Process or Control Device Parameters as Surrogate
‘ Work Practice Involving Specific Operations
‘ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (w/ and w/o duct burning) as LAER. This will be achieved through the application of DLN burners in combination with SCR. This limit applies at all load conditions except startup and shutdown. The facility will use CEMS to monitor NOx stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

DEC ID
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4345	a,b,c,d,e				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4350					
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4365	a				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4375	a				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4380	b				
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4395					
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4400					
U-00001	EP001	P01	CT001	40	CFR	60	KKKK	4405					
U-00001	EP001	P01		6	NYCRR	227	2	4	e				
U-00001	EP001	P01		6	NYCRR	227	2	6	b				
U-00001	EP001	P01		6	NYCRR	243	1	6					
U-00001	EP001	P01		6	NYCRR	243	1	7					
U-00001	EP001	P01		6	NYCRR	243	2						
U-00001	EP001	P01		6	NYCRR	243	3						
U-00001	EP001	P01		6	NYCRR	243	4						
U-00001	EP001	P01		6	NYCRR	243	5						
U-00001	EP001	P01		6	NYCRR	243	6						
U-00001	EP001	P01		6	NYCRR	243	7						
U-00001	EP001	P01		6	NYCRR	243	8						
U-00001	EP001	P01		6	NYCRR	244	1	6					
U-00001	EP001	P01		6	NYCRR	244	1	7					
U-00001	EP001	P01		6	NYCRR	244	2						
U-00001	EP001	P01		6	NYCRR	244	3						
U-00001	EP001	P01		6	NYCRR	244	4						
U-00001	EP001	P01		6	NYCRR	244	5						
U-00001	EP001	P01		6	NYCRR	244	6						
U-00001	EP001	P01		6	NYCRR	244	7						
U-00001	EP001	P01		6	NYCRR	244	8						
U-00001	EP001	P01		6	NYCRR	245	1	6					
U-00001	EP001	P01		6	NYCRR	245	1	7					
U-00001	EP001	P01		6	NYCRR	245	2						
U-00001	EP001	P01		6	NYCRR	245	3						
U-00001	EP001	P01		6	NYCRR	245	4						
U-00001	EP001	P01		6	NYCRR	245	5						
U-00001	EP001	P01		6	NYCRR	245	6						
U-00001	EP001	P01		6	NYCRR	245	7						
U-00001	EP001	P01		6	NYCRR	245	8						
U-00001	EP001	P01		6	NYCRR	231	5	4					
U-00001	EP001	P01		6	NYCRR	231	7	6					
U-00001	EP001	P01		40	CFR	72	A	6	a	3			

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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U- 00001	EP001	P01		40	CFR	72	A	9					
U- 00001	EP001	P01		40	CFR	75	A	2					
U- 00001	EP001	P01		40	CFR	75	B	10					
U- 00001	EP001	P01		40	CFR	75	B	11					
U- 00001	EP001	P01		40	CFR	75	B	12					
U- 00001	EP001	P01		40	CFR	75	B	13					
U- 00001	EP001	P01		40	CFR	75	C						
U- 00001	EP001	P01		40	CFR	75	D						
U- 00001	EP001	P01		40	CFR	75	F						
U- 00001	EP001	P01		40	CFR	75	G						
U- 00001	EP001	P02	AUX01	40	CFR	60	Dc	48c	a				
U- 00001	EP001	P02	AUX01	6	NYCRR	227	2	d					
U- 00001	EP001	P02	AUX01	6	NYCRR	231	5	4					
U- 00001	EP001	P02	AUX01	6	NYCRR	231	7	6					
U- 00001	EP001	P03	BSG01	40	CFR	60	IIII	4202					
U- 00001	EP001	P03	BSG01	40	CFR	60	IIII	4205					
U- 00001	EP001	P03	BSG01	40	CFR	60	IIII	4207					
U- 00001	EP001	P03	BSG01	40	CFR	60	IIII	4209	a				
U- 00001	EP001	P03	BSG02	40	CFR	60	IIII	4202					
U- 00001	EP001	P03	BSG02	40	CFR	60	IIII	4205					
U- 00001	EP001	P03	BSG02	40	CFR	60	IIII	4207					
U- 00001	EP001	P03	BSG02	40	CFR	60	IIII	4209	a				
U- 00001	EP001	P03	BSG03	40	CFR	60	IIII	4202					
U- 00001	EP001	P03	BSG03	40	CFR	60	IIII	4205					
U- 00001	EP001	P03	BSG03	40	CFR	60	IIII	4207					
U- 00001	EP001	P03	BSG03	40	CFR	60	IIII	4209	a				
U- 00001	EP001	P03	BSG04	40	CFR	60	IIII	4202					
U- 00001	EP001	P03	BSG04	40	CFR	60	IIII	4205					
U- 00001	EP001	P03	BSG04	40	CFR	60	IIII	4207					
U- 00001	EP001	P03	BSG04	40	CFR	60	IIII	4209	a				
U- 00001	EP001	P03	BSG01	6	NYCRR	231	5	4					
U- 00001	EP001	P03	BSG01	6	NYCRR	231	7	6					
U- 00001	EP001	P03	BSG02	6	NYCRR	231	5	4					
U- 00001	EP001	P03	BSG02	6	NYCRR	231	7	6					
U- 00001	EP001	P03	BSG03	6	NYCRR	231	5	4					
U- 00001	EP001	P03	BSG03	6	NYCRR	231	7	6					
U- 00001	EP001	P03	BSG04	6	NYCRR	231	5	4					
U- 00001	EP001	P03	BSG04	6	NYCRR	231	7	6					
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U- 00001	EP001	P01		6	NYCRR	242	3						
U- 00001	EP001	P01		6	NYCRR	242	4						
U- 00001	EP001	P01		6	NYCRR	242	5						
U- 00001	EP001	P01		6	NYCRR	242	6						
U- 00001	EP001	P01		6	NYCRR	242	7						
U- 00001	EP001	P01		6	NYCRR	242	8						
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	227	2	4	e	2			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 6NYCRR 227 2.4 as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	KKKK	4345	a,b,c,d,e				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00001	EP001	P01		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 40 CFR 60 Subpart KKKK as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0			Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

MODIFIED

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

X Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		NY998 - 00 - 0	Volatile organic compounds

Monitoring Information

○ Continuous Emission Monitoring
X Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
○ Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Facility will maintain a VOC emission limit of 1.0 ppmv at 15 percent O2 without duct burning and 2.0 ppmv with duct burning as LAER. These levels of emissions will be achieved via good combustion control and an oxidation catalyst. These emission limits apply at all load conditions except startup and shutdown. Stack testing will be used to demonstrate compliance with these limits.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 25A

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
1.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

○ Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

○ Continuous Emission Monitoring
X Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
○ Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		630 - 08 - 0	Carbon monoxide

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a CO emission limit of 2.0 ppmv at 15 percent O2 with and without duct burning as BACT for the proposed project. This level of emissions will be achieved via good combustion control and an oxidation catalyst. The facility will use CEMS to monitor CO stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 10

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	CO Catalyst is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		NY075 - 00 - 0	Particulates

Monitoring Information

☐ Continuous Emission Monitoring
☒ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a PM10/PM2.5 emission limit of 0.005 lb/MMBtu without duct burning and 0.006 lb/MMBtu with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting only commercially available, pipeline quality natural gas in the turbines and duct burner. The facility will demonstrate compliance with these limits via stack testing.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			EPA RM5, 201/201A & 202

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.006		7	pounds per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

“ Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P01		7446 - 09 - 5	Sulfur dioxide

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a SO2 emission limit of 0.0015 lb/MMBtu (with and without duct burning) as BACT. This level of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	12	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00001	EP001	P01		7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

○ Continuous Emission Monitoring
○ Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Facility will maintain a sulfuric acid mist limit of 0.0004 lb/MMBtu without duct burning and 0.0006 with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	012	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

○ Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

○ Continuous Emission Monitoring
○ Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
○ Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

MODIFIED

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	2	5					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00001	EP001	P02	AUX01	NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 0.011 lb/MMBtu. The auxiliary boiler will use flue gas recirculation in combination with low-NOx burners. The facility will use vendor guarantees and/or stack testing to document compliance with this LAER emission limit, as required.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.036		7	lbs per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	2	5					

☐ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00001	EP001	P02	AUX01	NY998 - 08 - 0	Volatile organic compounds

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The facility will maintain a VOC emission limit of 0.0015 lb/MMBtu from the auxiliary boiler using good combustion practices in combination. This is considered to represent LAER. The facility will use vendor guarantees and/or stack testing to document compliance with this limit.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 25A

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.005		7	lbs per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

MODIFIED

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00001	EP001	P02	AUX01	630 - 08 - 0	Carbon monoxide

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The facility will maintain a CO emission limit of 0.0375 lb/MMBtu from the auxiliary boiler using good combustion practices. This limit represents BACT. The facility will use vendor guarantees and/or stack testing to document compliance with this limit.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 10

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.037		7	lbs per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request.

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00001	EP001	P02	AUX01	NY075- 00 - 0	Particulates

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The project is proposing the exclusive use of clean-burning pipeline quality natural gas in conjunction with good combustion practices as BACT for the auxiliary boiler. The project will maintain a PM10/PM2.5 emission limit of 0.005 lb/MMBtu in the boiler using natural gas as the only fuel. The facility will use vendor emission guarantees and/or stack testing to ensure compliance with this limit as required.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			EPA RM5, 201/201A, 202

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.005		7	lbs per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hr average	14	As required	10	Upon request

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00001	EP001	P02	AUX01	7664 - 09 - 05	Sulfur Dioxide

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☒ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

The facility will maintain a SO2 emission limit of 0.0015 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed auxiliary boiler will only combust pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	012	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	Grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00001	EP001	P02	AUX01	7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☒ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

The facility will maintain an H2SO4 emission limit of 0.0001 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed auxiliary boiler will only combust pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	12	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	Grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	NY210 - 00 - 0	Oxides of nitrogen

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The proposed engines will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a NOx + HC emission rate of 4.8 g/hp-hr. Compliance with these federal limits is also considered LAER. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
4.8		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	NY998 - 00 - 0	Volatile organic compounds

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The proposed engines will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a NOx + VOC emission rate of 4.8 g/hp-hr. Compliance with these federal limits is also considered LAER. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
4.8		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	630 - 08 - 0	Carbon monoxide

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The proposed engines will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a CO emission rate of 2.6 g/hp-hr. Compliance with these federal limits is also considered BACT. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.6		319	Grams per horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	NY075 - 00 - 0	Particulates

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The proposed engines will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a particulate emission rate of 0.15 g/hp-hr. Compliance with these federal limits is also considered BACT. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.15		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement " State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	7664 - 09 - 05	Sulfur dioxide

Monitoring Information

" Continuous Emission Monitoring
" Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

The facility will maintain a SO2 emission limit of 0.002 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed engine will only combust ULSD diesel fuel with a maximum sulfur content of 0.0015 percent sulfur by weight.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	007	Number 2 oil	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.0015		57	Percent by weight

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement X State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00001	EP001	P03	BSG01-04	7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

" Continuous Emission Monitoring
" Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

The facility will maintain an H2SO4 emission limit of 0.00003 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed engine will only combust ULSD diesel fuel with a maximum sulfur content of 0.0015 percent sulfur by weight.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	007	Number 2 oil	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.0015		57	Percent by weight

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

DEC ID
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Section IV - Emission Unit Information

Emission Unit Description

“ Continuation Sheet(s)

EMISSION UNIT	U-0002	This generating unit will fire natural gas exclusively and consist of one CTG, one HRSG with supplemental duct firing, and an associated ACC.

Building

“ Continuation Sheet(s)

Building	Building Name	Length (ft)	Width (ft)	Orientation
CTGEN01	Turbine Generation Building	670	100	0°
HRSG02	Heat Recovery Steam Generator Enclosure	128	160	90°
ACC02	Air Cooled Condenser	190	190	90°

Emission Point

“ Continuation Sheet(s)

EMISSION PT.	EP002	No. 2 Combustion Turbine Generator / HRSG				
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section	
					Length (in)	Width (in)
435	283	170	228	179	N/A	N/A
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
70.2	1,193,469					N/A

EMISSION PT.						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Source/Control

“ Continuation Sheet(s)

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
CT002	C	12/2011	3/2015	N/A			General Electric 7FA.05

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
2061	25	MMBtu/hr, HHV@ ISO conditions				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
DB002	C	12/2011	3/2015	N/A			HRSG, Duct Burner

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
379	25	MMBtu/hr, HHV@ ISO conditions				

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
☐ - ☐☐☐☐ - ☐☐☐☐☐

Section IV - Emission Unit Information

EMISSION UNIT U-00002

Emission Source/Control (continuation)

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
DLN02	K	12/2011	3/2015	N/A	103	Dry Low NOx Burner	General Electric

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
SCR02		12/2011	3/2015	N/A	033	Selective catalytic reduction	TBD

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
OXC02		12/2011	3/2015	N/A	110	Catalytic oxidation	TBD

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information (continued)

Process Information

“ Continuation Sheet(s)

EMISSION UNIT	U-0002		PROCESS	P04

Description

Process P04 represents natural gas firing in the Unit #2 F-class combustion turbine with and without supplemental duct firing. Dry low-NOx combustion technology and selective catalytic reduction will be used to control emissions of NOx from the process. An oxidation catalyst will be used to control emissions of CO and VOC. The natural gas HHV is assumed to be 966 Btu per standard cubic foot. Please see Section 2.0 of the application for a more detailed process description.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
2-01-002-01	2.76	24,135	0115	million cubic feet of natural gas

“ Confidential
☒ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		
24	365		

Emission Source/Control Identifier(s)

CT002	DLN02	SCR02	OXC02	DB002			

EMISSION UNIT			PROCESS	

Description

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

“ Confidential
“ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements “ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00002	EP002	P04		40	CFR	60	KKKK	4320					
U-00002	EP002	P04		40	CFR	60	KKKK	4330	a				
U-00002	EP002	P04		40	CFR	60	KKKK	4333	a				
U-00002	EP002	P04		40	CFR	60	KKKK	4340	b				

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements “ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00002	EP002	P04		6	NYCRR	242	1	6					
U-00002	EP002	P04		6	NYCRR	242	1	7					
U-00002	EP002	P04		6	NYCRR	242	2						
U-00002	EP002	P04		6	NYCRR	242	3						

Emission Unit Compliance Certification

x Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

x Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

x Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (w/ and w/o duct burning) as LAER. This will be achieved through the application of DLN burners in combination with SCR. This limit applies at all load conditions except startup and shutdown. The facility will use CEMS to monitor NOx stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

DEC ID
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00002	EP002	P04		40	CFR	60	KKKK	4345	a,b,c,d,e				
U-00002	EP002	P04		40	CFR	60	KKKK	4350					
U-00002	EP002	P04		40	CFR	60	KKKK	4365	a				
U-00002	EP002	P04		40	CFR	60	KKKK	4375	a				
U-00002	EP002	P04		40	CFR	60	KKKK	4380	b				
U-00002	EP002	P04		40	CFR	60	KKKK	4395					
U-00002	EP002	P04		40	CFR	60	KKKK	4400					
U-00002	EP002	P04		40	CFR	60	KKKK	4405					
U-00002	EP002	P04		6	NYCRR	227	2	4	e				
U-00002	EP002	P04		6	NYCRR	227	2	6	b				
U-00002	EP002	P04		6	NYCRR	243	1	6					
U-00002	EP002	P04		6	NYCRR	243	1	7					
U-00002	EP002	P04		6	NYCRR	243	2						
U-00002	EP002	P04		6	NYCRR	243	3						
U-00002	EP002	P04		6	NYCRR	243	4						
U-00002	EP002	P04		6	NYCRR	243	5						
U-00002	EP002	P04		6	NYCRR	243	6						
U-00002	EP002	P04		6	NYCRR	243	7						
U-00002	EP002	P04		6	NYCRR	243	8						
U-00002	EP002	P04		6	NYCRR	244	1	6					
U-00002	EP002	P04		6	NYCRR	244	1	7					
U-00002	EP002	P04		6	NYCRR	244	2						
U-00002	EP002	P04		6	NYCRR	244	3						
U-00002	EP002	P04		6	NYCRR	244	4						
U-00002	EP002	P04		6	NYCRR	244	5						
U-00002	EP002	P04		6	NYCRR	244	6						
U-00002	EP002	P04		6	NYCRR	244	7						
U-00002	EP002	P04		6	NYCRR	244	8						
U-00002	EP002	P04		6	NYCRR	245	1	6					
U-00002	EP002	P04		6	NYCRR	245	1	7					
U-00002	EP002	P04		6	NYCRR	245	2						
U-00002	EP002	P04		6	NYCRR	245	3						
U-00002	EP002	P04		6	NYCRR	245	4						
U-00002	EP002	P04		6	NYCRR	245	5						
U-00002	EP002	P04		6	NYCRR	245	6						
U-00002	EP002	P04		6	NYCRR	245	7						
U-00002	EP002	P04		6	NYCRR	245	8						
U-00002	EP002	P04		6	NYCRR	231	5	4					
U-00002	EP002	P04		6	NYCRR	231	7	6					
U-00002	EP002	P04		40	CFR	72	A	6	a	3			

New York State Department of Environmental Conservation
Air Permit Application

MODIFIED

DEC ID											
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00002	EP002	P04		40	CFR	72	A	9					
U - 00002	EP002	P04		40	CFR	75	A	2					
U - 00002	EP002	P04		40	CFR	75	B	10					
U - 00002	EP002	P04		40	CFR	75	B	11					
U - 00002	EP002	P04		40	CFR	75	B	12					
U - 00002	EP002	P04		40	CFR	75	B	13					
U - 00002	EP002	P04		40	CFR	75	C						
U - 00002	EP002	P04		40	CFR	75	D						
U - 00002	EP002	P04		40	CFR	75	F						
U - 00002	EP002	P04		40	CFR	75	G						
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U- 00002	EP002	P04		6	NYCRR	242	3						
U- 00002	EP002	P04		6	NYCRR	242	4						
U- 00002	EP002	P04		6	NYCRR	242	5						
U- 00002	EP002	P04		6	NYCRR	242	6						
U- 00002	EP002	P04		6	NYCRR	242	7						
U- 00002	EP002	P04		6	NYCRR	242	8						
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	227	2	4	e	2			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 6NYCRR 227 2.4 as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	KKKK	4345	a,b,c,d,e				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00002	EP002	P04		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 40 CFR 60 Subpart KKKK as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0			Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		NY998 - 00 - 0	Volatile organic compounds

Monitoring Information

“ Continuous Emission Monitoring
X Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a VOC emission limit of 1.0 ppmv at 15 percent O2 without duct burning and 2.0 ppmv with duct burning as LAER. These levels of emissions will be achieved via good combustion control and an oxidation catalyst. These emission limits apply at all load conditions except startup and shutdown. Stack testing will be used to demonstrate compliance with this limit.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 25A

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
1.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

“ Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

“ Continuous Emission Monitoring
X Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

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DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		630 - 08 - 0	Carbon monoxide

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a CO emission limit of 2.0 ppmv at 15 percent O2 with and without duct burning as BACT for the proposed project. This level of emissions will be achieved via good combustion control and an oxidation catalyst. The facility will use CEMS to monitor CO stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 10

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		NY075 - 00 - 0	Particulates

Monitoring Information

☐ Continuous Emission Monitoring
☒ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a PM10/PM2.5 emission limit of 0.005 lb/MMBtu without duct burning and 0.006 lb/MMBtu with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting only commercially available, pipeline quality natural gas in the turbines and duct burner. The facility will demonstrate compliance with these limits via stack testing.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			EPA RM5, 201/201A & 202

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.006		7	pounds per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

MODIFIED

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

“ Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00002	EP002	P04		7446 - 09 - 5	Sulfur dioxide

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a SO2 emission limit of 0.0015 lb/MMBtu (with and without duct burning) as BACT. This level of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	12	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00002	EP002	P04		7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☒ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a sulfuric acid mist limit of 0.0004 lb/MMBtu without duct burning and 0.0006 lb/MMBtu with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	012	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

☐ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

DEC ID
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Section IV - Emission Unit Information

Emission Unit Description

“ Continuation Sheet(s)

EMISSION UNIT	U-0003	This generating unit will fire natural gas exclusively and consist of one CTG, one HRSG with supplemental duct firing, and an associated ACC.

Building

“ Continuation Sheet(s)

Building	Building Name	Length (ft)	Width (ft)	Orientation
CTGEN01	Turbine Generation Building	670	100	0°
HRSG03	Heat Recovery Steam Generator Enclosure	128	160	90°
ACC03	Air Cooled Condenser	190	190	90°

Emission Point

“ Continuation Sheet(s)

EMISSION PT.	EP003	No. 3 Combustion Turbine Generator / HRSG				
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section Length (in)	Cross Section Width (in)
435	283	170	228	179	N/A	N/A
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
70.2	1,193,469					N/A
EMISSION PT.						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Source/Control

“ Continuation Sheet(s)

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer’s Name/Model No.
CT003	C	12/2011	3/2015	N/A			General Electric 7FA.05
Design Capacity	Design Capacity Units Code	Design Capacity Units Description			Waste Feed Code	Waste Feed Description	Waste Type Code / Description
2061	25	MMBtu/hr, HHV@ ISO conditions					
Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer’s Name/Model No.
DB003	C	12/2011	3/2015	N/A			HRSG, Duct Burner
Design Capacity	Design Capacity Units Code	Design Capacity Units Description			Waste Feed Code	Waste Feed Description	Waste Type Code / Description
379	25	MMBtu/hr, HHV@ ISO conditions					

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
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Section IV - Emission Unit Information

EMISSION UNIT	Emission Source/Control (continuation)
U-00003	

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
DLN03	K	12/2011	3/2015	N/A	103	Dry Low NOx Burner	General Electric

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
SCR03		12/2011	3/2015	N/A	033	Selective catalytic reduction	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OXC03		12/2011	3/2015	N/A	110	Catalytic oxidation	TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

DEC ID
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Section IV - Emission Unit Information (continued)

Process Information

“ Continuation Sheet(s)

EMISSION UNIT	U-0003		PROCESS	P05

Description

Process P05 represents natural gas firing in the F-class combustion turbine without supplemental duct firing. Dry low-NOx combustion technology and selective catalytic reduction will be used to control emissions of NOx from the process. An oxidation catalyst will be used to control emissions of CO and VOC. The natural gas HHV is assumed to be 966 Btu per standard cubic foot. Please see Section 2.0 of the application for a more detailed process description.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
2-01-002-01	2.76	24,135	0115	million cubic feet of natural gas

“ Confidential
☒ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		
24	365		

Emission Source/Control Identifier(s)

CT003	DLN03	SCR03	OXC03	DB003			

EMISSION UNIT			PROCESS	

Description

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

“ Confidential
“ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

DEC ID
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Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements “ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00003	EP003	P05		40	CFR	60	KKKK	4320					
U-00003	EP003	P05		40	CFR	60	KKKK	4330	a				
U-00003	EP003	P05		40	CFR	60	KKKK	4333	a				
U-00003	EP003	P05		40	CFR	60	KKKK	4340	b				

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements “ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00003	EP003	P05		6	NYCRR	242	1	6					
U-00003	EP003	P05		6	NYCRR	242	1	7					
U-00003	EP003	P05		6	NYCRR	242	2						
U-00003	EP003	P05		6	NYCRR	242	3						

Emission Unit Compliance Certification

x Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

x Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

x Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (w/ and w/o duct burning) as LAER. This will be achieved through the application of DLN burners in combination with SCR. This limit applies at all load conditions except startup and shutdown. The facility will use CEMS to monitor NOx stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN from General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

DEC ID
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00003	EP003	P05		40	CFR	60	KKKK	4345	a,b,c,d,e				
U-00003	EP003	P05		40	CFR	60	KKKK	4350					
U-00003	EP003	P05		40	CFR	60	KKKK	4365	a				
U-00003	EP003	P05		40	CFR	60	KKKK	4375	a				
U-00003	EP003	P05		40	CFR	60	KKKK	4380	b				
U-00003	EP003	P05		40	CFR	60	KKKK	4395					
U-00003	EP003	P05		40	CFR	60	KKKK	4400					
U-00003	EP003	P05		40	CFR	60	KKKK	4405					
U-00003	EP003	P05		6	NYCRR	227	2	4	e				
U-00003	EP003	P05		6	NYCRR	227	2	6	b				
U-00003	EP003	P05		6	NYCRR	243	1	6					
U-00003	EP003	P05		6	NYCRR	243	1	7					
U-00003	EP003	P05		6	NYCRR	243	2						
U-00003	EP003	P05		6	NYCRR	243	3						
U-00003	EP003	P05		6	NYCRR	243	4						
U-00003	EP003	P05		6	NYCRR	243	5						
U-00003	EP003	P05		6	NYCRR	243	6						
U-00003	EP003	P05		6	NYCRR	243	7						
U-00003	EP003	P05		6	NYCRR	243	8						
U-00003	EP003	P05		6	NYCRR	244	1	6					
U-00003	EP003	P05		6	NYCRR	244	1	7					
U-00003	EP003	P05		6	NYCRR	244	2						
U-00003	EP003	P05		6	NYCRR	244	3						
U-00003	EP003	P05		6	NYCRR	244	4						
U-00003	EP003	P05		6	NYCRR	244	5						
U-00003	EP003	P05		6	NYCRR	244	6						
U-00003	EP003	P05		6	NYCRR	244	7						
U-00003	EP003	P05		6	NYCRR	244	8						
U-00003	EP003	P05		6	NYCRR	245	1	6					
U-00003	EP003	P05		6	NYCRR	245	1	7					
U-00003	EP003	P05		6	NYCRR	245	2						
U-00003	EP003	P05		6	NYCRR	245	3						
U-00003	EP003	P05		6	NYCRR	245	4						
U-00003	EP003	P05		6	NYCRR	245	5						
U-00003	EP003	P05		6	NYCRR	245	6						
U-00003	EP003	P05		6	NYCRR	245	7						
U-00003	EP003	P05		6	NYCRR	245	8						
U-00003	EP003	P05		6	NYCRR	231	5	4					
U-00003	EP003	P05		6	NYCRR	231	7	6					
U-00003	EP003	P05		40	CFR	72	A	6	a	3			

New York State Department of Environmental Conservation
Air Permit Application

MODIFIED

DEC ID
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00003	EP003	P05		40	CFR	72	A	9					
U - 00003	EP003	P05		40	CFR	75	A	2					
U - 00003	EP003	P05		40	CFR	75	B	10					
U - 00003	EP003	P05		40	CFR	75	B	11					
U - 00003	EP003	P05		40	CFR	75	B	12					
U - 00003	EP003	P05		40	CFR	75	B	13					
U - 00003	EP003	P05		40	CFR	75	C						
U - 00003	EP003	P05		40	CFR	75	D						
U - 00003	EP003	P05		40	CFR	75	F						
U - 00003	EP003	P05		40	CFR	75	G						
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U- 00003	EP003	P05		6	NYCRR	242	3						
U- 00003	EP003	P05		6	NYCRR	242	4						
U- 00003	EP003	P05		6	NYCRR	242	5						
U- 00003	EP003	P05		6	NYCRR	242	6						
U- 00003	EP003	P05		6	NYCRR	242	7						
U- 00003	EP003	P05		6	NYCRR	242	8						
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DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	227	2	4	e	2			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 6NYCRR 227 2.4 as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN is General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	KKKK	4345	a,b,c,d,e				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U- 00003	EP003	P05		NY210- 00 - 0	Oxides of nitrogen

Monitoring Information

☒ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Facility will maintain a NOx emission limit of 2.0 ppmv at 15 percent O2 (with and without duct burning) as LAER for the proposed project. Meeting the LAER limit will also satisfy the requirements of 40 CFR 60 Subpart KKKK as LAER is more stringent than the limit under this regulation.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 7E

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	DLN is General Electric, SCR is TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0			Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	5	4					

X Applicable Federal Requirement " State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		NY998 - 00 - 0	Volatile organic compounds

Monitoring Information

" Continuous Emission Monitoring
X Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
" Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

Facility will maintain a VOC emission limit of 1.0 ppmv at 15 percent O2 without duct burning and 2.0 ppmv with duct burning as LAER. These levels of emissions will be achieved via good combustion control and an oxidation catalyst. These emission limits applies at all load conditions except startup and shutdown. Stack testing will be used to demonstrate compliance with these limits.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 25A

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
1.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

" Applicable Federal Requirement " State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

" Continuous Emission Monitoring
X Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
" Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement " State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		630 - 08 - 0	Carbon monoxide

Monitoring Information

X Continuous Emission Monitoring
" Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
" Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

Facility will maintain a CO emission limit of 2.0 ppmv at 15 percent O2 with and without duct burning as BACT for the proposed project. This level of emissions will be achieved via good combustion control and an oxidation catalyst. The facility will use CEMS to monitor CO stack emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			40 CFR 60, Appendix A, Method 10

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.0		275	Parts per million by volume (dry, corrected to 15% O2)

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	01	Continuous	07	Quarterly

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement " State Only Requirement " Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		NY075 - 00 - 0	Particulates

Monitoring Information

" Continuous Emission Monitoring
X Intermittent Emission Testing
" Ambient Air Monitoring
" Monitoring of Process or Control Device Parameters as Surrogate
" Work Practice Involving Specific Operations
" Record Keeping/Maintenance Procedures

Description

Facility will maintain a PM10/PM2.5 emission limit of 0.005 lb/MMBtu without duct burning and 0.006 lb/MMBtu with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting only commercially available, pipeline quality natural gas in the turbines and duct burner. The facility will demonstrate compliance with these limits via stack testing.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			EPA RM5, 201/201A & 202

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.006		7	pounds per million Btus

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
08	1-hour average	14	As required	10	Upon request

MODIFIED

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

“ Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00003	EP003	P05		7446 - 09 - 5	Sulfur dioxide

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
“ Record Keeping/Maintenance Procedures

Description

Facility will maintain a SO2 emission limit of 0.0015 lb/MMBtu (with and without duct burning) as BACT. This level of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	12	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U - 00003	EP003	P05		7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

○ Continuous Emission Monitoring
○ Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Facility will maintain a sulfuric acid mist limit of 0.0004 lb/MMBtu without duct burning and 0.0006 with duct burning as BACT for the proposed project. These levels of emissions will be achieved by combusting commercially available, pipeline quality natural gas with a maximum sulfur content of 0.5 grains/100 SCF in the combustion turbines.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	012	Natural gas	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.5		13	grains per 100 DSCF

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum, not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

○ Applicable Federal Requirement ○ State Only Requirement ○ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

○ Continuous Emission Monitoring
○ Intermittent Emission Testing
○ Ambient Air Monitoring
○ Monitoring of Process or Control Device Parameters as Surrogate
○ Work Practice Involving Specific Operations
○ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
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Section IV - Emission Unit Information

Emission Unit Description

“ Continuation Sheet(s)

EMISSION UNIT	U-0000	This emission unit represents the emergency fire pump at the facility. The fire pump will operate for a maximum of 500 hours per year.

Building

“ Continuation Sheet(s)

Building	Building Name	Length (ft)	Width (ft)	Orientation
WATANK	Service/fire water storage tank			

Emission Point

“ Continuation Sheet(s)

EMISSION PT.	EP004	Emergency Fire Pump				
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section Length (in)	Cross Section Width (in)
435	50	0	8	787		
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
120	2528					

EMISSION PT.						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (EF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Source/Control

“ Continuation Sheet(s)

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
FP01	C	12/2011	3/2015	N/A			TBD

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
460	220	Horsepower				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
- - -

Section IV - Emission Unit Information (continued)

Process Information

“ Continuation Sheet(s)

EMISSION UNIT U-0004 | PROCESS P06

Description

Process P06 represents diesel oil combustion in the emergency fire pump. The emergency fire pump will operate no more than 500 hours per year and have a maximum rating of 460 horsepower.

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
	0.020	10	76	1,000 gallons

“ Confidential
☒ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

FP01							

EMISSION UNIT - | PROCESS

Description

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

“ Confidential
“ Operating at Maximum Capacity
“ Activity with Insignificant Emissions

Operating Schedule		Building	Floor/Location
Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
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Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements ☒ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00004	EP004	P06	EP001	40	CFR	60	IIII	4202					
U-00004	EP004	P06	EP001	40	CFR	60	IIII	4205					
U-00004	EP004	P06	EP001	40	CFR	60	IIII	4207					
U-00004	EP004	P06	EP001	40	CFR	60	IIII	4209	a				

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements ☐ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
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Emission Unit Compliance Certification ☒ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	NY210 - 00 - 0	Oxides of nitrogen

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The proposed engine will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a NOx + HC emission rate of 3.0 g/hp-hr. Compliance with these federal limits is also considered LAER. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
3.0		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

NEW

DEC ID
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Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U-00004	EP004	P06	FP01	6	NYCRR	231	5	4					
U-00004	EP004	P06	FP01	6	NYCRR	231	7	6					
-													
-													
-													
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New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	NY998 - 00 - 0	Volatile organic compounds

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
X Record Keeping/Maintenance Procedures

Description

The proposed engine will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a NOx + HC emission rate of 3.0 g/hp-hr. Compliance with these federal limits is also considered LAER. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
3.0		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

X Applicable Federal Requirement “ State Only Requirement “ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	630 - 08 - 0	Carbon monoxide

Monitoring Information

“ Continuous Emission Monitoring
“ Intermittent Emission Testing
“ Ambient Air Monitoring
“ Monitoring of Process or Control Device Parameters as Surrogate
“ Work Practice Involving Specific Operations
X Record Keeping/Maintenance Procedures

Description

The proposed engine will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a CO emission rate of 2.6 g/hp-hr. Compliance with these federal limits is also considered BACT. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
2.6		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
40	CFR	60	IIII	4205					

X Applicable Federal Requirement ‘ State Only Requirement ‘ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	NY075-00-0	Particulates

Monitoring Information

‘ Continuous Emission Monitoring
‘ Intermittent Emission Testing
‘ Ambient Air Monitoring
‘ Monitoring of Process or Control Device Parameters as Surrogate
‘ Work Practice Involving Specific Operations
X Record Keeping/Maintenance Procedures

Description

The proposed engines will be certified to meet the federal emission standards under 40 CFR 60 Subpart IIII for the current model years. Thus the engines will maintain a particulate emission rate of 0.15 g/hp-hr. Compliance with these federal limits is also considered BACT. Compliance will be demonstrated via certification by the vendor and adherence to vendor specified maintenance recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.15		319	Grams per brake horsepower hour

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement ‘ State Only Requirement ‘ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	7664-04-05	Sulfur dioxide

Monitoring Information

‘ Continuous Emission Monitoring
‘ Intermittent Emission Testing
‘ Ambient Air Monitoring
‘ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
‘ Record Keeping/Maintenance Procedures

Description

The facility will maintain a SO2 emission limit of 0.002 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed engine will only combust ULSD diesel fuel with a maximum sulfur content of 0.0015 percent sulfur by weight.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	007	Number 2 oil	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.0015		57	Percent by weight

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

New York State Department of Environmental Conservation
Air Permit Application

NEW

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	7	6					

X Applicable Federal Requirement ❍ State Only Requirement ❍ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-00004	EP004	P06	FP01	7664 - 93 - 9	Sulfuric acid mist

Monitoring Information

❍ Continuous Emission Monitoring
❍ Intermittent Emission Testing
❍ Ambient Air Monitoring
❍ Monitoring of Process or Control Device Parameters as Surrogate
X Work Practice Involving Specific Operations
❍ Record Keeping/Maintenance Procedures

Description

The facility will maintain an H2SO4 emission limit of 0.00003 lb/MMBtu as BACT for the proposed project. In order to maintain this limit, the proposed engine will only combust ULSD diesel fuel with a maximum sulfur content of 0.0015 percent sulfur by weight.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
04	007	Number 2 oil	

Parameter Code	Parameter Description	Manufacturer Name/Model No.
32	Sulfur content	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
0.0015		57	Percent by weight

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Maximum not to be exceeded	14	As required	10	Upon request

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

❍ Applicable Federal Requirement ❍ State Only Requirement ❍ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
-				- -	

Monitoring Information

❍ Continuous Emission Monitoring
❍ Intermittent Emission Testing
❍ Ambient Air Monitoring
❍ Monitoring of Process or Control Device Parameters as Surrogate
❍ Work Practice Involving Specific Operations
❍ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

DEC ID
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Section IV - Emission Unit Information (continued)

Determination of Non-Applicability (Title V Only)

☐ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

Emission Unit	Emission Point	Process	Emission Source	
-				☐ Applicable Federal Requirement ☐ State Only Requirement

Description

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

Emission Unit	Emission Point	Process	Emission Source	
-				☐ Applicable Federal Requirement ☐ State Only Requirement

Description

Process Emissions Summary

☐ Continuation Sheet(s)

EMISSION UNIT	-		PROCESS	

CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
- -						

PTE			Standard Units	PTE How Determined	Actual	
(lbs/hr)	(lbs/yr)	(standard units)			(lbs/hr)	(lbs/yr)

EMISSION UNIT	-		PROCESS	

CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
- -						

PTE			Standard Units	PTE How Determined	Actual	
(lbs/hr)	(lbs/yr)	(standard units)			(lbs/hr)	(lbs/yr)

EMISSION UNIT	-		PROCESS	

CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
- -						

PTE			Standard Units	PTE How Determined	Actual	
(lbs/hr)	(lbs/yr)	(standard units)			(lbs/hr)	(lbs/yr)

DEC ID
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Section IV - Emission Unit Information (continued)

EMISSION UNIT	Emission Unit Emissions Summary			☐ Continuation Sheet(s)
-				
CAS No.	Contaminant Name			
- -				
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.	Contaminant Name			
- -				
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.	Contaminant Name			
- -				
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.	Contaminant Name			
- -				
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Compliance Plan

☐ Continuation Sheet(s)

For any emission units which are not in compliance at the time of permit application, the applicant shall complete the following

Consent Order

Certified progress reports are to be submitted every 6 months beginning ____/____/____

Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												

Remedial Measure / Intermediate Milestones	R/I	Date Scheduled

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- - - - - - - - -

Section IV - Emission Unit Information (continued)

Request for Emission Reduction Credits

“ Continuation Sheet(s)

EMISSION UNIT -

Emission Reduction Description

Contaminant Emission Reduction Data

Baseline Period ___/___/___ to ___/___/___

Reduction Date	Reduction Method
___/___/___	

CAS No.	Contaminant Name	ERC (lbs/yr) Netting	ERC (lbs/yr) Offset
- -			
- -			
- -			

Facility to Use Future Reduction

Name | APPLICATION ID - - /

Location Address

“ City / “ Town / “ Village | State | Zip

Use of Emission Reduction Credits

“ Continuation Sheet(s)

EMISSION UNIT -

Proposed Project Description

Contaminant Emissions Increase Data

CAS No.	Contaminant Name	PEP (lbs/yr)
- -		

Statement of Compliance

“ All facilities under the ownership of this “ownership/firm” are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.

Source of Emission Reduction Credit - Facility

Name | PERMIT ID - - /

Location Address

“ City / “ Town / “ Village | State | Zip

Emission Unit	CAS No.	Contaminant Name	ERC (lbs/yr) Netting	ERC (lbs/yr) Offset
-	- -			
-	- -			
-	- -			

DEC ID
- -

Supporting Documentation

- [X] P.E. Certification (form attached)
- [ ] List of Exempt Activities (form attached)
- [X] Plot Plan
- [ ] Methods Used to Determine Compliance (form attached)
- [X] Calculations
- [ ] Air Quality Model (_____ / _____ / _____)
- [ ] Confidentiality Justification
- [ ] Ambient Air Monitoring Plan (_____ / _____ / _____)
- [ ] Stack Test Protocols/Reports (_____ / _____ / _____)
- [ ] Continuous Emissions Monitoring Plans/QA/QC (_____ / _____ / _____)
- [ ] MACT Demonstration (_____ / _____ / _____)
- [ ] Operational Flexibility: Description of Alternative Operating Scenarios and Protocols
- [ ] Title IV: Application/Registration
- [ ] ERC Quantification (form attached)
- [ ] Use of ERC(s) (form attached)
- [ ] Baseline Period Demonstration
- [ ] Analysis of Contemporaneous Emission Increase/Decrease
- [X] LAER Demonstration (_____ / _____ / _____)
- [X] BACT Demonstration (_____ / _____ / _____)
- [ ] Other Document(s): _____ (/ /)

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ATTACHMENT 3

Attachment 3

Additional Supporting Documentation for Air Permit Application

List of Contents

Vendor information

- fire pump
- black start generators
- auxiliary boiler

Supporting Calculations for Modeling Results (provided on diskette)

- Steady state
- Startup/Shutdown plus Auxiliary Boiler
- Auxiliary Boiler
- Black Start Generator
- Fire Pump

Supporting Figures for Modeling Results

- Land use Figures for AERSURFACE
- Windroses
- 1-hour Carbon Monoxide (CO)
- 8-hour CO
- 1-hour NO2
- Annual NO2
- 24-hour Particulate Matter less than 2.5 microns (PM2.5)
- Annual PM2.5
- 24-hour Particulate Matter less than 10 microns (PM10)
- 1-hour SO2
- 3-hour SO2
- 24-hour SO2
- Annual SO2

Tier 3 Emissions Data - John Deere Power Systems

Nameplate Rating Information

Clarke Model	JX6H-UFADF0
Power Rating (BHP / kW)	460 / 343
Certified Speed (RPM)	1760

Certificate Data

John Deere Engine Rating	6135HFC48B
Engine Model Year *	2009
EPA Family Name	9JDXL13.5103
EPA Certificate Number	JDX-NRCI-09-24
CARB Executive Order Number	U-R-004-0370
Emissions Label Part Number	R528979

* The Engine Model Year is listed on the emissions label.

Emissions Data * *

Units	g/hp-hr	g/kW-hr
CO	0.53	0.71
Pm	0.087	0.116
NOx	2.6	3.48
HC	0.097	0.13
NOx + HC	2.69	3.61
Test Engine	RG6135X000770	

* * The emission data listed is measured from the calibration engine under laboratory test conditions. It is intended to represent an "average" engine but is not a guarantee that all engines meet these values.

JOHN DEERE

John Deere Power Systems
3801 W. Ridgeway Ave., PO Box 5100
Waterloo, Iowa USA 50704-5100

Scope of Supply

MIRATECH Corporation Scope of Supply

	Model Number	Quantity per Engine
Selective Catalytic Reduction Housing	**CBL81-30**	**1**
SCR Housing	CBL81-30	1
SCR Catalyst	RFV.0890.40.0150.450	81
SCR Control System	**Dosing System**	**1**
SE Dosing System	SE75.lab.ops	1
SE Injector	DES75.600	1
Temperature Switch	TS	1
Over Temperature Sensor	TEB600	1
Mixing Section Components	**30" Mixing Section (2 Mixer).we**	**1**
Pre-Fabricated Mixing Section	30" Mixing Section (2 Mixer).we	1
Flow Dresser	30" Flow Dresser	1
Dosing Mixer	30" Dosing Mixer	1
Static Mixer	30" Static Mixer	1
Mixing Section Injector Flange	30" Mixing Section Injector Flange	1
SCR Reactant Tank	**SW1500.ht.ins**	**(optional)**
Level Transmitter	LU20	1 (optional)
Level Controller	LI55	1 (optional)
Level Controller Enclosure	LM92	1 (optional)
Reactant Tank	SW1500.ht.ins	1 (optional)
Spare Parts	**Dosing System Recommended Spare Parts**	**(optional)**
Recommended Spare Parts	SE75 Recommended Spare Parts	1 (optional)
Maintenance Pack	**Dosing System Maintenance Pack**	**(optional)**
Maintenance Pack	DEX75.XXX Maintenance Pack	1 (optional)
	SE75 Maintenance Pack	1 (optional)

Customer Scope of Supply

Description
Support Structure
Attachment to Support Structure (Bolts, Nuts, Levels, etc.)
Expansion Joints
Exhaust Piping
Inlet Pipe Bolts, Nuts, & Gasket
Outlet Pipe Bolts, Nuts, & Gasket
Insulation for Exhaust Piping
Power Input (230 VAC, 60 Hz, Single Phase)
Component Installation Including External Tubing and Wiring
Isolated Engine Load Signal to MIRATECH Equipment (4-20 mA)
Dry Contact (N.O.) for Engine Run Signal to MIRATECH Equipment
Heat Tracing of Reactant Lines (Required when Ambient Temperatures are Below 40 °F)
Design for Structural Support and Thermal Expansion

Application Data

Project Information

Site Location:	NY
Project Name:	Advanced Power
Application:	Standby Power
Number of Engines:	1
Operating Hours per Year:	200

Engine Specifications

Engine Manufacturer:	Caterpillar
Model Number:	C175-16
Operating Load for Engine Data Provided:	100%
Power Output:	4,376 bhp
Speed:	1,800 RPM
Type of Fuel:	Number 2 Diesel
Sulfur Content:	500 ppmv or less
Fuel Consumption:	6,314 BTU/bhp-hr
Type of Lube Oil:	1.0 wt% sulfated ash or less
Lube Oil Consumption:	< 0.00027 gal/bhp-hr
Exhaust Flow Rate:	24,300 acfm (cfm)
Exhaust Temperature:	883°F

Raw Engine Emission Data

	g/bhp-hr	lb/MW-hr	ppmvd	ppmvd @ 15% O_2	lb/hr	g/kW-hr	tons/yr
NO_X	6.22	18.39	1,001	597	60.01	8.34	6.00
CO	1.17	3.46	309	184	11.29	1.57	1.13
PM_{10}	0.05	0.15	30.86	18.39	0.48	0.07	0.05

% O_2	11.0
H_2O Assumption	12.5

System Specifications and Performance Warranty Data

SCR System Specifications (CBL81-30, Dosing System, 30" Mixing Section (2 Mixer).we)

Design Exhaust Flow Rate:	24,300 acfm (cfm)
Design Exhaust Temperature[1]:	883°F
Total Catalyst Volume:	29 cubic feet
SCR Catalyst Volume:	29 cubic feet
SCR Catalyst Space Velocity:	19,464 1/hr
System Pressure Loss:	5.0 inches of WC (Fresh)
Sound Attenuation:	25-30 dBA insertion loss
Reactant:	Urea
Percent Concentration:	32.5%
System Dosing Capacity:	75 L/hr
Estimated Reactant Consumption:	11 gal/hr (41 L/hr) / Per Engine

Post System Emission Data

	g/bhp-hr	lb/MW-hr	ppmvd	ppmvd @ 15% O_2	lb/hr	g/kW-hr	tons/yr
NO_X	2.13	6.30	343	204	20.55	2.86	2.05
CO	2.60	7.69	688	410	25.08	3.49	2.51
PM_{10}	0.15	0.44	93	55	1.45	0.20	0.14

Calculated Percent Reductions

	% Reduction
NOx	65.8
CO	0.0
PM10	0.0

Equipment Details

Selective Catalytic Reduction Housing Details (CBL81-30)

SCR Housing Details	CBL81-30 SD
• Model Number:	CBL81-30
• Quantity[2]:	1
• Number of Catalyst Layers:	1.0
• Number of Spare Catalyst Layers:	1.0
• Number of Catalyst Blocks per Layer:	81
• Material:	Carbon Steel
• Paint:	None
• Inlet Pipe Size & Connection:	30 inch FF Flange, 150# ANSI standard bolt pattern
• Outlet Pipe Size & Connection:	30 inch FF Flange, 150# ANSI standard bolt pattern
• Dimensions:	62.750" H x 61.125" W x 119" L
• Weight Without Catalyst:	2,166 lbs
• Weight Fully Loaded With Catalyst:	5,594 lbs
SCR Catalyst Details	
• Model Number:	RFV.0890.40.0150.450
• Quantity[2]:	81
• Catalyst Optimum Temperature Range[3]:	752 – 887°F
• Catalyst Dimensions:	5.91" W x 5.91" H x 17.72" L

Mixing Section Components Details (30" Mixing Section (2 Mixer).we)

Pre-Fabricated Mixing Section Details	30" Mixing Section (2 mixer).we SD
• Model Number:	30" Mixing Section (2 Mixer).we
• Quantity[2]:	1
• Material:	304 SS
• Overall Length:	156 inches
• Weight:	852 lbs
Flow Dresser Details	
• Model Number:	30" Flow Dresser
• Quantity[2]:	1
• Weight:	87 lbs
Dosing Mixer Details	
• Model Number:	30" Dosing Mixer
• Quantity[2]:	1
• Weight:	34 lbs
Static Mixer Details	
• Model Number:	30" Static Mixer
• Quantity[2]:	1
• Weight:	40 lbs
Mixing Section Injector Flange Details	
• Model Number:	30" Mixing Section Injector Flange
• Quantity[2]:	1
• Weight:	4 lbs

SCR Control System Details (Dosing System)

SE Dosing System Details	SE75 SD
• Model Number:	SE75.lab.ops
• Quantity[2]:	1
• Overall Dimensions:	26.339 W x 58.99 H x 14.568 D
• Weight:	331 lbs

Equipment Details (continued)

SCR Control System Details (Dosing System) (continued)

SE Injector Details

- Model Number: DES75.600
- Quantity[2]: 1
- Weight: 19 lbs

Temperature Switch Details

- Model Number: TS
- Quantity[2]: 1
- Weight: 2 lbs

Over Temperature Sensor Details

- Model Number: TEB600
- Quantity[2]: 1
- Weight: 3 lbs

Maintenance Pack Details (Dosing System Maintenance Pack)

Maintenance Pack Details

- Model Number: DEX75.XXX Maintenance Pack
- Quantity[2]: 1

Maintenance Pack Details

- Model Number: SE75 Maintenance Pack
- Quantity[2]: 1

Spare Parts Details (Dosing System Recommended Spare Parts)

Recommended Spare Parts Details

- Model Number: SE75 Recommended Spare Parts
- Quantity[2]: 1

SCR Reactant Tank Details (SW1500.ht.ins)

Level Transmitter Details

- Model Number: LU20
- Quantity[2]: 1

Level Controller Details

- Model Number: LI55
- Quantity[2]: 1

Level Controller Enclosure Details

- Model Number: LM92
- Quantity[2]: 1

Reactant Tank Details SW1500 SD

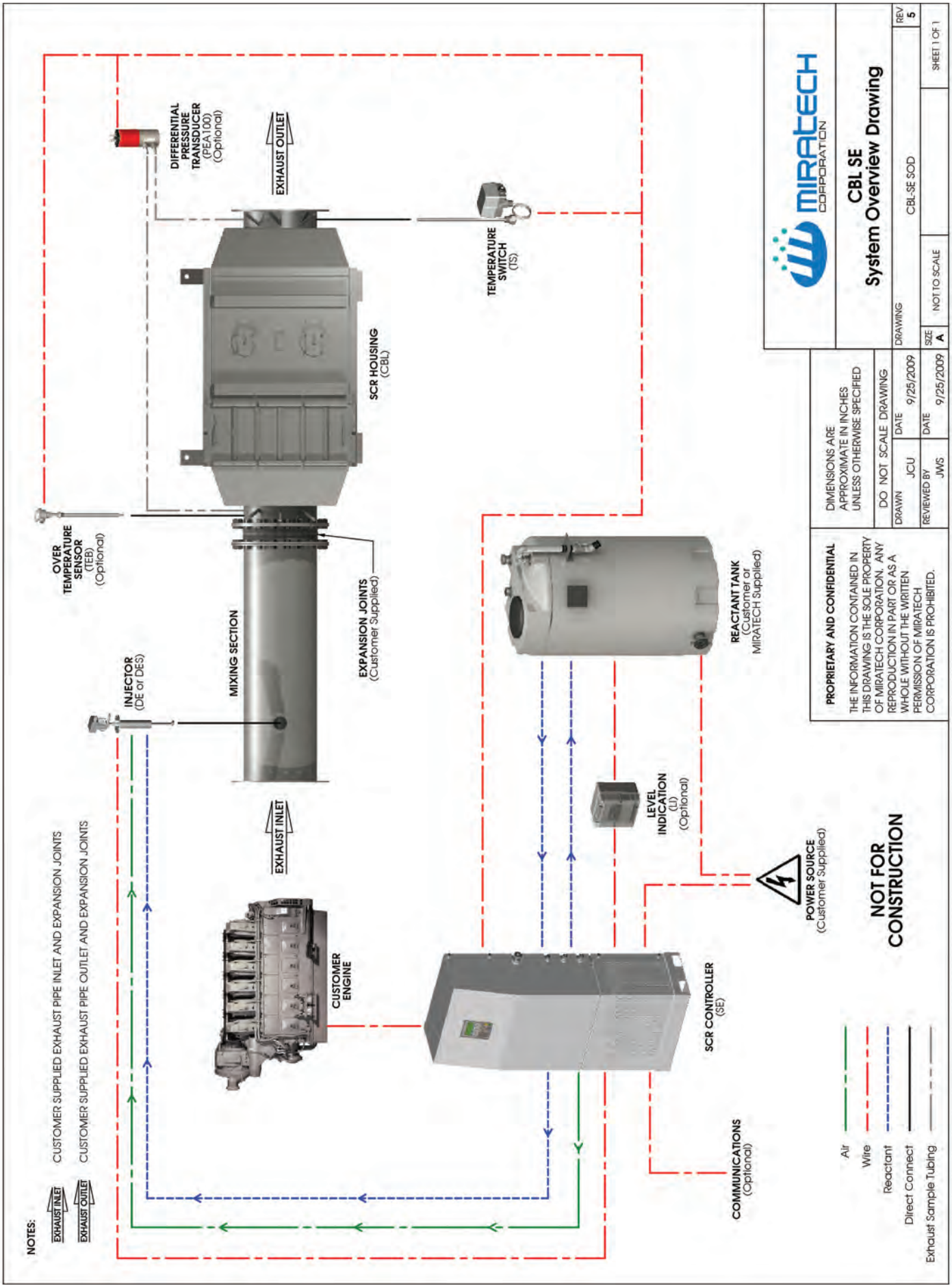
- Model Number: SW1500.ht.ins
- Quantity[2]: 1
- Tank Dimensions: 66.5 D x 121 H
- Weight: 415 lbs

Special Notes/Conditions

1. Carbon steel housings are suitable for use in all applications where the housing will not be insulated. Carbon steel housings may only be insulated in applications where the exhaust temperature does not exceed 900°F. If your application requires insulation with an engine exhaust temperature exceeding 900°F, a stainless steel housing is required. Customer installed insulation on carbon steel housings in applications where exhaust temperature exceeds 900°F voids any MIRATECH product warranty.
2. Quantities are per engine.
3. SCR units require a minimum temperature of 572°F (300°C) and a maximum temperature of 986°F (530°C). Several catalyst formulations are available with different optimum operating temperatures. The optimum operating temperature for this application is listed. Operating outside of the optimum range will change the reactant consumption and could cause damage to the catalyst.

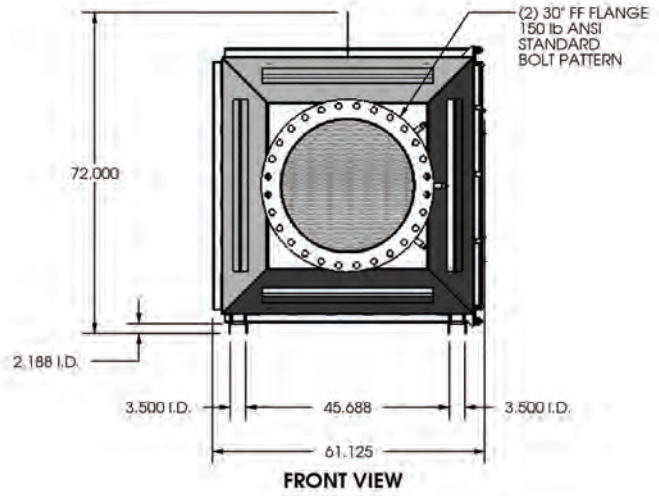
- MIRATECH does not allow any silencer, packed or unpacked, to be installed upstream of any MIRATECH equipment. Installation of such equipment will void the warranty per MIRATECH Holdings Terms and Conditions.
- Final catalyst housings are dependent on engine output and required emission reductions. Changes may be made to optimize the system design at the time of order.
- Any drawings included with this proposal are preliminary in nature and could change depending on final product selection.

System Overview Drawing

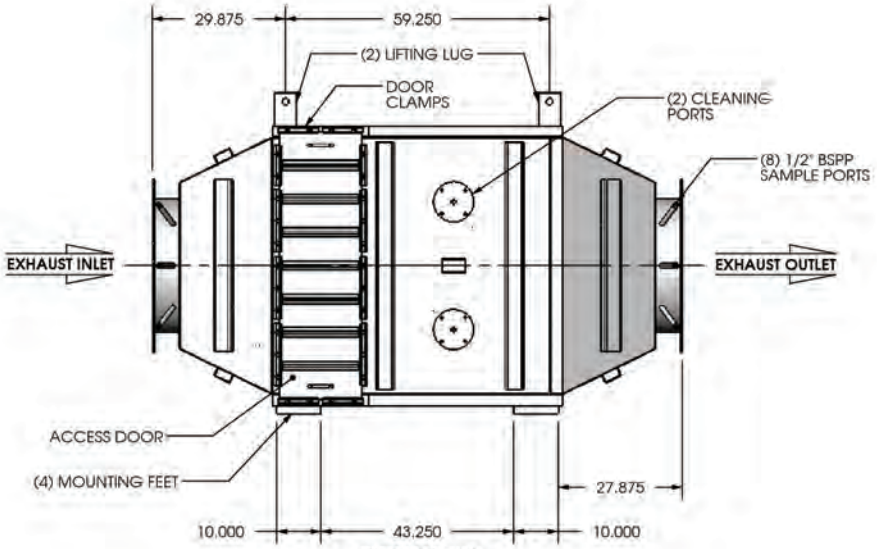


WEIGHTS (APPROXIMATE)	
EMPTY HOUSING	2166 lb
ONE (1) FULL SCR CATALYST LAYER	1703 lb
TWO (2) FULL SCR CATALYST LAYERS	3428 lb

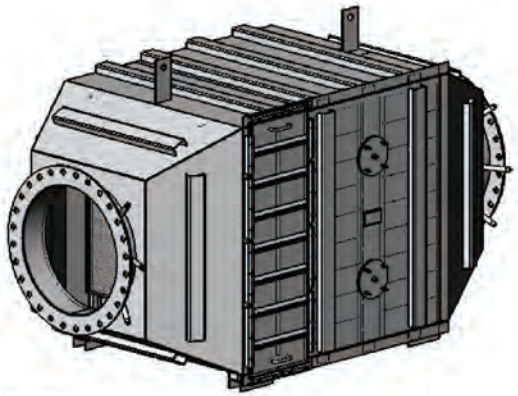
- HOUSING HAS CAPACITY FOR TWO (2) FULL SCR CATALYST LAYERS

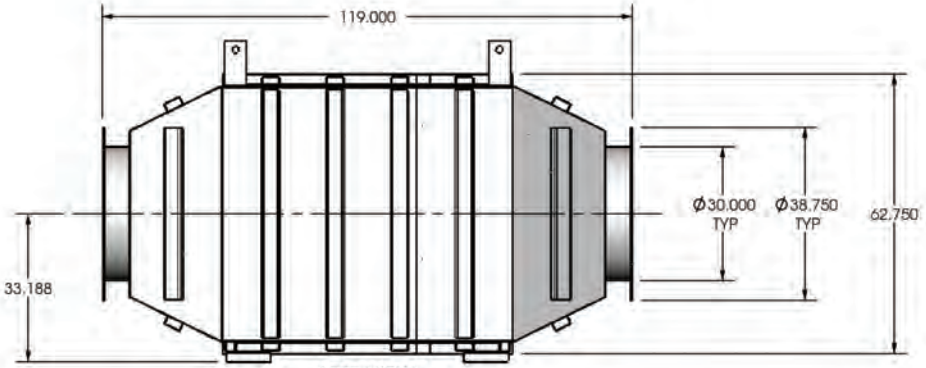


FRONT VIEW



RIGHT VIEW





LEFT VIEW

NOTES:

- ONLY USE LIFTING LUGS TO LIFT HOUSING
- ALLOW MINIMUM 28" CLEARANCE FROM DOOR FOR LOADING AND MAINTENANCE
- NO FORCES OR MOMENTS MAY BE APPLIED TO THE FLANGES
- MOUNTING FEET RECOMMENDED FOR HOUSING SUPPORT
- MUST BE MOUNTED HORIZONTALLY (CUSTOM HOUSING REQUIRED TO MOUNT VERTICALLY)

MATERIAL CONSTRUCTION:

- CARBON STEEL

PROJECT NAME	
SALES ORDER NO.	
FABRICATION P.O.	

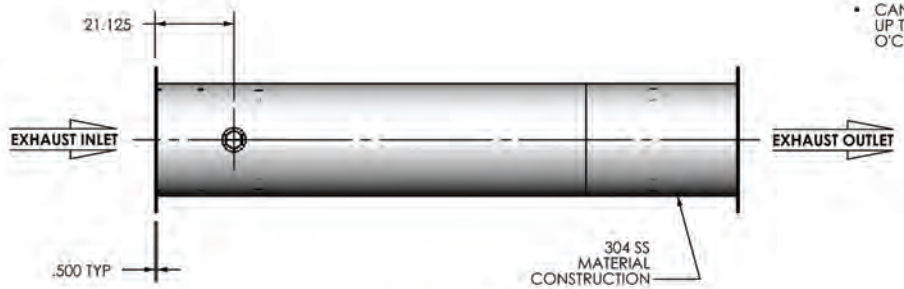
DIMENSIONS ARE APPROXIMATE IN INCHES UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

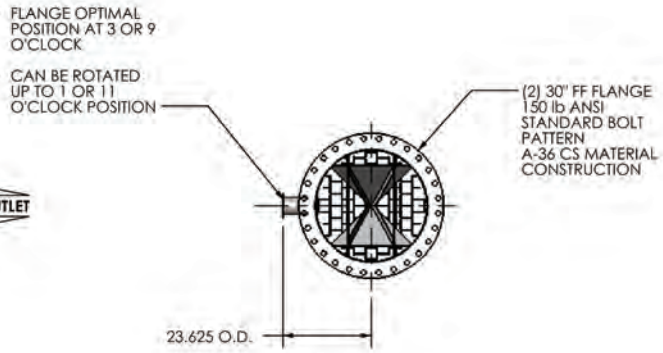
MIRATECH CORPORATION

CBL81-30
Sales Drawing

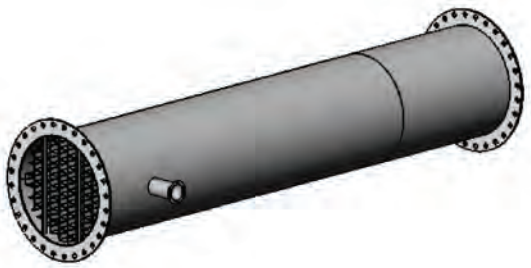
DRAWN	DATE	DRAWING	REV
JCU	9/25/2009	CBL81-30 SD	1
REVIEWED BY	DATE	SIZE	SCALE	SHEET
JWS	9/25/2009	A	1:42	1 OF 1

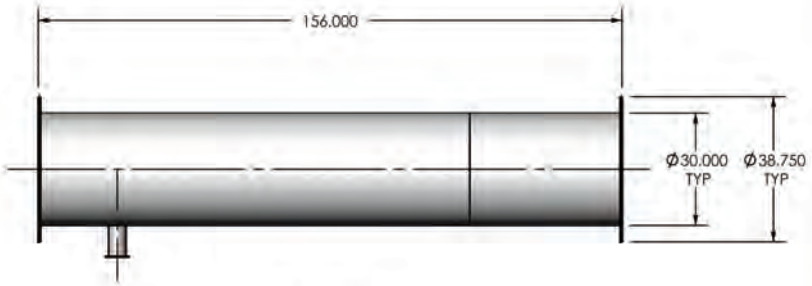


FRONT VIEW



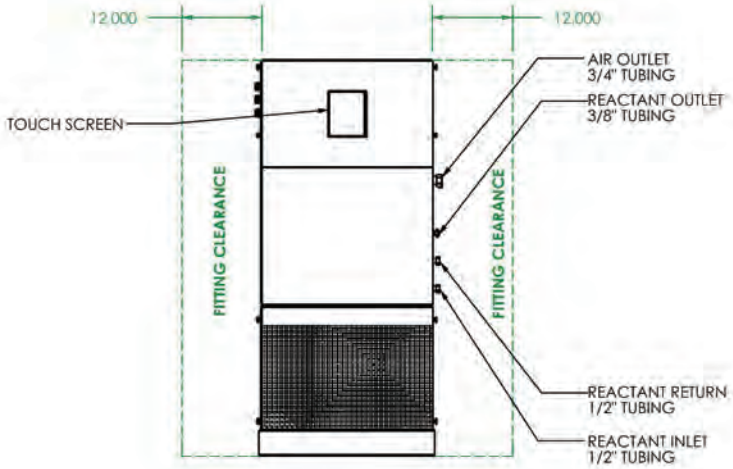
RIGHT VIEW



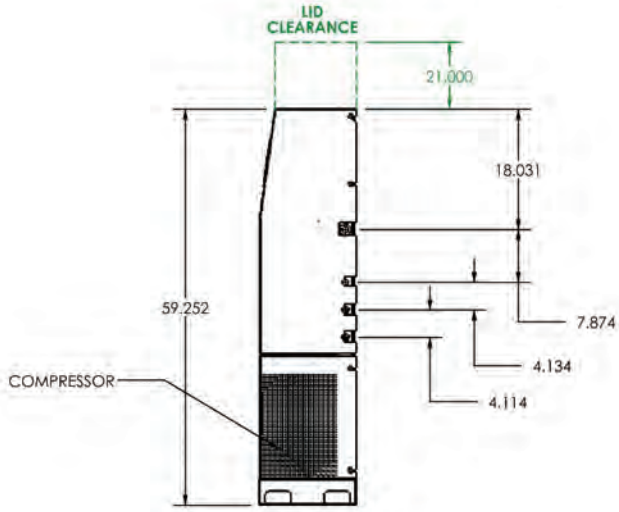


TOP VIEW

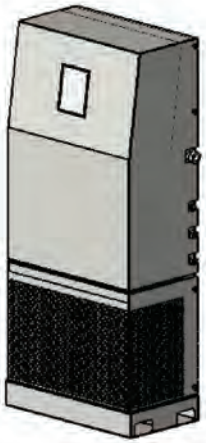
PROJECT NAME	**PROPRIETARY AND CONFIDENTIAL** THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MIRATECH CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MIRATECH CORPORATION IS PROHIBITED.	DIMENSIONS ARE APPROXIMATE IN INCHES UNLESS OTHERWISE SPECIFIED	MIRATECH CORPORATION				
SALES ORDER NO.		DO NOT SCALE DRAWING	**30" Mixing Section (2 Mixer)-we Sales Drawing**				
FABRICATION P.O.		DRAWN AJM	DATE 1/5/2010	DRAWING 30 Mixing Section (2 Mixer)-we SD			REV 5
		REVIEWED BY JWS	DATE 1/5/2010	SIZE A	SCALE 1:50	WEIGHT: 852 lb	SHEET 1 OF 1

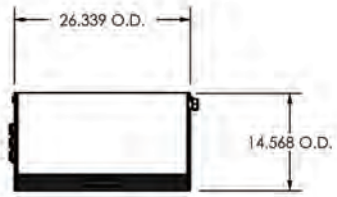


FRONT VIEW



RIGHT VIEW





TOP VIEW

NOTES:

- POWER CONSUMPTION: 1300 W
- VOLTAGE: 230 VAC +/- 10%, SINGLE Φ, 60 HZ
- CURRENT DRAW: 6.0 A
- OPERATION TEMPERATURE: 32°F - 104°F
- NO DEW DROPS ALLOWED

INSTALLATION INSTRUCTIONS:

- IF UNIT IS INSTALLED IN AN ENCLOSURE, THE ENCLOSURE MUST BE VENTILATED AND TEMPERATURE CONTROLLED TO MAINTAIN PROPER OPERATION TEMPERATURE.
- UNIT MAY BE FLOOR OR WALL MOUNTED AND ACCESSIBLE WHILE ENGINE IS IN OPERATION

PROJECT NAME	
SALES ORDER NO.	
FABRICATION P.O.	

DIMENSIONS ARE APPROXIMATE IN INCHES UNLESS OTHERWISE SPECIFIED

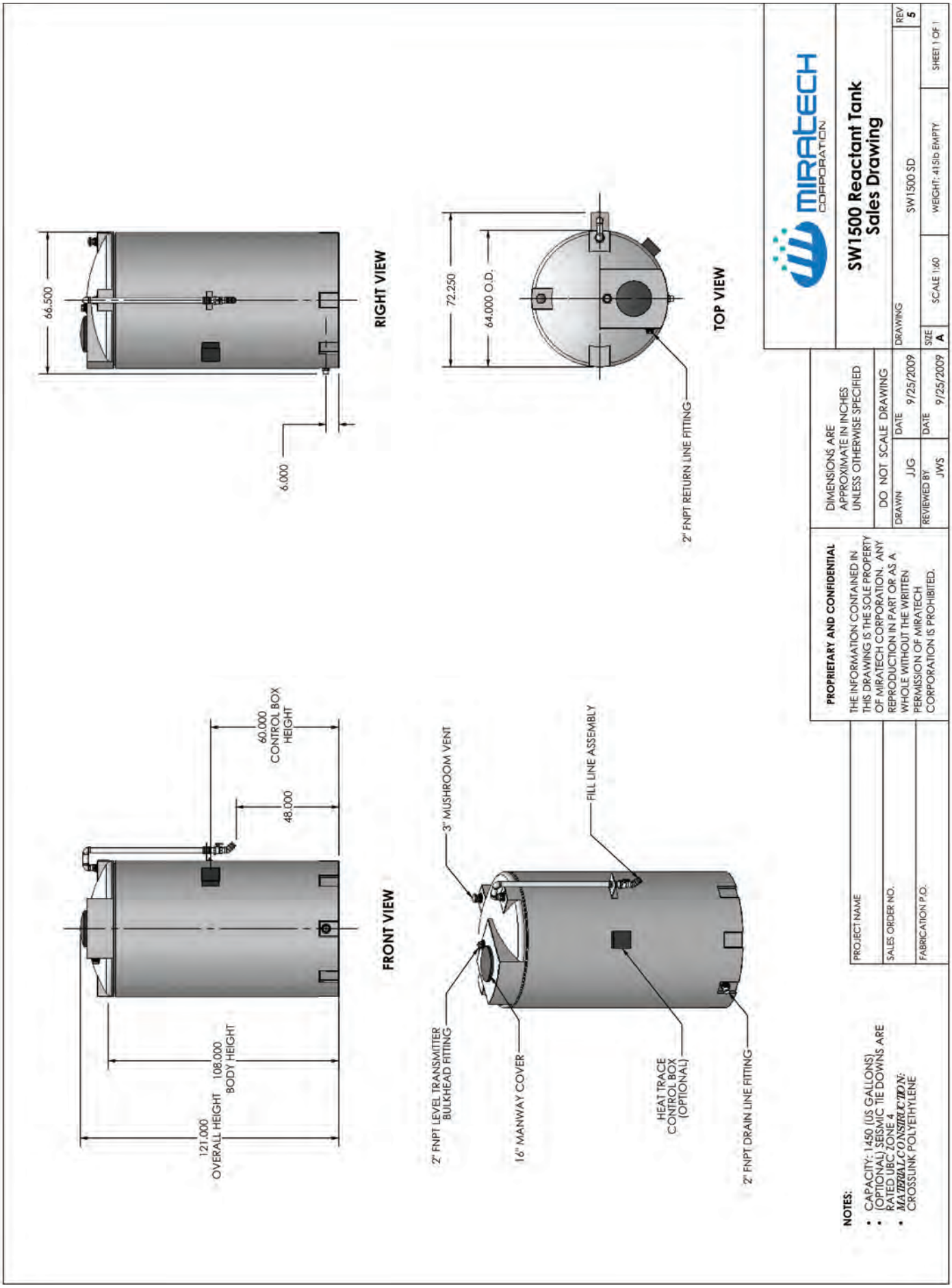
DO NOT SCALE DRAWING

MIRATECH CORPORATION

SE75 Controller Sales Drawing

DRAWN JCU	DATE 9/25/2009	DRAWING SE75 SD				REV 5
REVIEWED BY JWS	DATE 9/25/2009	SIZE A	SCALE 1:28	WEIGHT: 331 lb		SHEET 1 OF 1

Reactant Tank Drawing



VICTORY ENERGY OPERATIONS, LLC · 10701 E 126th St. N. Collinsville, **OKLAHOMA 74021**
918/274-0023 · **FAX 918/274-0059**

VICTORY ENERGY®

January 28, 2011

Advanced Power (NA)
31 Milk Street, Suite 1001
Boston, MA 02109

Attention: Mr. Jeff Ahrens

RE: Cricket Valley Energy - Power Plant Aux Boiler Burners - Emissions

Ms. Ahrens:

In follow up to your request for design conditions and emission guarantees on the boiler for the Cricket Valley Energy Project I am pleased to offer the following for your review. I have provided thermal data on the boiler at the varying temperature conditions. In addition, please also see the letter from Coen Burner Company addressing Emission guarantees for our boiler.

Once you have had a chance to review the information I have provided please do not hesitate to contact me should you have any questions or require further assistance.

Very truly yours,

VICTORY ENERGY OPERATIONS, LLC

Dianna Jarvis
Sales Associate
Ph: 918-382-4885
Fax: 918-274-0059
Email: djarvis@victoryenergy.com

VICTORY ENERGY CUSTOMER SPEC SHEET

Customer: Cricket Valley Energy **Date: 8/24/2010**
Reference: VS-4-45 **Quote Number: VE-4301 REV1**
SAT,NG Ambient Temperature =59F

PREDICTED PERFORMANCE

LOAD		DESIGN	LOAD 1	LOAD 2	LOAD 3
Outlet Steam Flow,	(lbs/hr)	50000	37500	25000	12500
Fuel/Firing Conditions -					
Fuel Fired		Natural Gas	Natural Gas	Natural Gas	Natural Gas
Excess Air,	(%)	15.00	15.00	15.00	15.00
Flue Gas Recirc.,	(%)	30.00	30.00	30.00	30.00
Steam/Water Conditions -					
Steam Temp @ NRV Outlet	(deg F)	435.8	435.8	435.7	435.7
Steam Pres @ NRV Outlet	(psig)	350.0	350.0	350.0	350.0
Boiler Saturation Temp.	(deg F)	438.3	437.1	436.3	435.8
Boiler Operating Press.	(psig)	360.0	355.6	352.5	350.6
Econ. Water Exit Temp,	(deg F)	351.1	337.4	322.9	310.7
Feedwater Inlet Temp,	(deg F)	227.0	227.0	227.0	227.0
Flow Quantities -					
Percent Blowdown,	(%)	1.00	1.00	1.00	1.00
Blowdown Flow,	(lbs/hr)	505	379	253	126
Feedwater Flow,	(lbs/hr)	50,505	37,879	25,253	12,626
Fuel Flow,	(lbs/hr)	2,692	2,012	1,344	689
Combustion Air Flow,	(lbs/hr)	50,975	38,111	25,452	13,052
Flue Gas Flow LVG System,	(lbs/hr)	53,666	40,123	26,796	13,741
Flue Gas Recirc. Flow,	(lbs/hr)	16,100	12,037	8,039	4,122
Flue Gas Flow w/Recirc.,	(lbs/hr)	69,766	52,161	34,835	17,863
Air/Gas Temperatures -					
Ambient Air Temp.,	(deg F)	59.0	59.0	59.0	59.0
Comb. Air/FGR Mixture,	(deg F)	120.1	114.3	109.1	104.7
Adiabatic Flame Temp,	(deg F)	3,297.3	3,294.3	3,291.7	3,289.5
Flame Temp w/ Recirc.,	(deg F)	2,688.8	2,681.5	2,675.0	2,669.5
Effec. Furnace Gas Temp,	(deg F)	2,169	2,049	1,881	1,606
Furnace Exit Gas Temp,	(deg F)	2,088	1,957	1,773	1,472
Boiler Exit Gas Temp,	(deg F)	636	578	519	463
Gas Temp. LVG Economizer,	(deg F)	300	277	257	240
Flue Gas Recirc. Temp.	(deg F)	300	277	257	240
System Efficiency -					
Dry Gas Losses,	(%)	4.53	4.11	3.72	3.40
Water From Fuel Fired,	(%)	10.90	10.80	10.71	10.63
Moisture in Air Losses,	(%)	0.06	0.05	0.05	0.04
Radiation Loss,	(%)	0.67	0.94	1.57	4.05
Manufactures Margin,	(%)	1.00	1.00	1.00	1.00
Total Heat Losses,	(%)	17.16	16.90	17.05	19.12
Boiler Efficiency,	(%)	82.84	83.10	82.95	80.88
HHV Heat Input By Fuel,	(mmbtu/hr)	61.016	45.618	30.466	15.623

System Draft Losses -					
Fan Inlet:					
Silencer,	**(inwc)**	**1.50**	**0.89**	**0.42**	**0.12**
Fan Inlet Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Fan Outlet:					
Fan Outlet Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Burner,	**(inwc)**	**7.00**	**4.13**	**1.95**	**0.55**
Convection Zone,	**(inwc)**	**4.11**	**2.26**	**0.99**	**0.25**
Economizer,	**(inwc)**	**0.81**	**0.44**	**0.19**	**0.05**
Outlet Gas Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Total Draft Losses,	**(inwc)**	**14.91**	**8.60**	**3.98**	**1.08**
Furnace Performance -					
Heat Available,	**(mmbtu/hr)**	**54.367**	**40.693**	**27.204**	**13.962**
Heat Absorbed in Furn,	**(mmbtu/hr)**	**13.265**	**11.997**	**9.877**	**6.378**
Liberation Rate,	**(btu/hr-ft^3)**	**75792**	**56666**	**37844**	**19406**
Furnace Release Rate,	**(btu/hr-ft2)**	**96228**	**71930**	**48030**	**24626**
Residence Time,	**(sec)**	**0.669**	**0.938**	**1.505**	**3.326**
Convection Zone Performance -					
Gas Mass Velocity	**(lb/hr-ft2)**	**5,241**	**3,918**	**2,617**	**1,342**
Gas Velocity at Inlet,	**(ft/sec)**	**97.32**	**69.01**	**42.58**	**18.89**
Heat Absorbed in Conv.,	**(mbtu/hr)**	**31.36**	**22.02**	**13.18**	**5.31**
Economizer Performance -					
Gas Mass Velocity	**(lb/hr-ft2)**	**5,547**	**4,147**	**2,769**	**1,420**
Gas Velocity at Inlet	**(ft/sec)**	**44.29**	**31.37**	**19.75**	**9.55**
Water Flow Through Econ,	**(lb/hr)**	**50,505**	**37,879**	**25,253**	**12,626**
Water Mass Velocity,	**(lb/sec-ft2)**	**215.86**	**161.89**	**107.93**	**53.96**
Feedwater Pressure Drop,	**(psi)**	**5.09**	**2.88**	**1.30**	**0.34**
Heat Absorbed in Econ.,	**(mbtu/hr)**	**6.42**	**4.28**	**2.47**	**1.08**

VICTORY ENERGY CUSTOMER SPEC SHEET

Customer: Cricket Valley Energy **Date: 8/24/2010**
Reference: VS-4-45 **Quote Number: VE-4301 REV1**
SAT,NG Ambient Temperature =105F

==========

PREDICTED PERFORMANCE

LOAD		DESIGN	LOAD 1	LOAD 2	LOAD 3
Outlet Steam Flow,	(lbs/hr)	50000	37500	25000	12500
Fuel/Firing Conditions -					
Fuel Fired		Natural Gas	Natural Gas	Natural Gas	Natural Gas
Excess Air,	(%)	15.00	15.00	15.00	15.00
Flue Gas Recirc.,	(%)	30.00	30.00	30.00	30.00
Steam/Water Conditions -					
Steam Temp @ NRV Outlet	(deg F)	435.8	435.8	435.7	435.7
Steam Pres @ NRV Outlet	(psig)	350.0	350.0	350.0	350.0
Boiler Saturation Temp.	(deg F)	438.3	437.1	436.3	435.8
Boiler Operating Press.	(psig)	360.0	355.6	352.5	350.6
Econ. Water Exit Temp,	(deg F)	353.7	339.9	325.4	313.0
Feedwater Inlet Temp,	(deg F)	227.0	227.0	227.0	227.0
Flow Quantities -					
Percent Blowdown,	(%)	1.00	1.00	1.00	1.00
Blowdown Flow,	(lbs/hr)	505	379	253	126
Feedwater Flow,	(lbs/hr)	50,505	37,879	25,253	12,626
Fuel Flow,	(lbs/hr)	2,659	1,987	1,326	680
Combustion Air Flow,	(lbs/hr)	51,810	38,719	25,846	13,244
Flue Gas Flow LVG System,	(lbs/hr)	54,469	40,706	27,173	13,923
Flue Gas Recirc. Flow,	(lbs/hr)	16,341	12,212	8,152	4,177
Flue Gas Flow w/Recirc.,	(lbs/hr)	70,809	52,918	35,324	18,100
Air/Gas Temperatures -					
Ambient Air Temp.,	(deg F)	105.0	105.0	105.0	105.0
Comb. Air/FGR Mixture,	(deg F)	155.8	149.8	144.4	139.7
Adiabatic Flame Temp,	(deg F)	3,192.8	3,189.8	3,187.2	3,184.9
Flame Temp w/ Recirc.,	(deg F)	2,605.9	2,598.5	2,591.7	2,585.9
Effec. Furnace Gas Temp,	(deg F)	2,118	2,003	1,840	1,572
Furnace Exit Gas Temp,	(deg F)	2,042	1,915	1,737	1,444
Boiler Exit Gas Temp,	(deg F)	634	577	518	463
Gas Temp. LVG Economizer,	(deg F)	302	279	258	240
Flue Gas Recirc. Temp.	(deg F)	302	279	258	240
System Efficiency -					
Dry Gas Losses,	(%)	3.71	3.28	2.88	2.54
Water From Fuel Fired,	(%)	10.48	10.38	10.28	10.20
Moisture in Air Losses,	(%)	0.26	0.23	0.20	0.18
Radiation Loss,	(%)	0.67	0.94	1.57	4.05
Manufactures Margin,	(%)	1.00	1.00	1.00	1.00
Total Heat Losses,	(%)	16.12	15.83	15.94	17.98
Boiler Efficiency,	(%)	83.88	84.17	84.06	82.02
HHV Heat Input By Fuel,	(mmbtu/hr)	60.264	45.037	30.064	15.405

VICTORY ENERGY®

System Draft Losses -					
Fan Inlet:					
Silencer,	(inwc)	1.50	0.88	0.42	0.12
Fan Inlet Ducts,	(inwc)	0.50	0.29	0.14	0.04
Fan Outlet:					
Fan Outlet Ducts,	(inwc)	0.50	0.29	0.14	0.04
Burner,	(inwc)	7.00	4.13	1.95	0.54
Convection Zone,	(inwc)	4.22	2.33	1.02	0.26
Economizer,	(inwc)	0.84	0.46	0.20	0.05
Outlet Gas Ducts,	(inwc)	0.50	0.29	0.14	0.04
Total Draft Losses,	(inwc)	15.06	8.68	4.00	1.09
Furnace Performance -					
Heat Available,	(mmbtu/hr)	53.950	40.365	26.973	13.833
Heat Absorbed in Furn,	(mmbtu/hr)	13.093	11.850	9.779	6.333
Liberation Rate,	(btu/hr-ft^3)	74858	55944	37344	19135
Furnace Release Rate,	(btu/hr-ft2)	95294	71198	47516	24342
Residence Time,	(sec)	0.663	0.928	1.489	3.289
Convection Zone Performance -					
Gas Mass Velocity	(lb/hr-ft2)	5,319	3,975	2,654	1,360
Gas Velocity at Inlet,	(ft/sec)	98.38	69.80	43.09	19.14
Heat Absorbed in Conv.,	(mbtu/hr)	31.40	22.06	13.21	5.32
Economizer Performance -					
Gas Mass Velocity	(lb/hr-ft2)	5,630	4,207	2,808	1,439
Gas Velocity at Inlet	(ft/sec)	45.54	32.26	20.31	9.81
Water Flow Through Econ,	(lb/hr)	50,505	37,879	25,253	12,626
Water Mass Velocity,	(lb/sec-ft2)	215.86	161.89	107.93	53.96
Feedwater Pressure Drop,	(psi)	5.09	2.88	1.30	0.34
Heat Absorbed in Econ.,	(mbtu/hr)	6.56	4.38	2.54	1.11

VICTORY ENERGY CUSTOMER SPEC SHEET

Customer: Cricket Valley Energy **Date: 8/24/2010**
Reference: VS-4-45 **Quote Number: VE-4301 REV1 SAT,NG**
Ambient Temperature =-8F

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PREDICTED PERFORMANCE

LOAD		DESIGN	LOAD 1	LOAD 2	LOAD 3
Outlet Steam Flow,	(lbs/hr)	50000	37500	25000	12500
Fuel/Firing Conditions -					
Fuel Fired		Natural Gas	Natural Gas	Natural Gas	Natural Gas
Excess Air,	(%)	15.00	15.00	15.00	15.00
Flue Gas Recirc.,	(%)	30.00	30.00	30.00	30.00
Steam/Water Conditions -					
Steam Temp @ NRV Outlet	(deg F)	435.8	435.8	435.7	435.7
Steam Pres @ NRV Outlet	(psig)	350.0	350.0	350.0	350.0
Boiler Saturation Temp.	(deg F)	438.3	437.1	436.3	435.8
Boiler Operating Press.	(psig)	360.0	355.6	352.5	350.6
Econ. Water Exit Temp,	(deg F)	352.5	338.6	323.9	311.5
Feedwater Inlet Temp,	(deg F)	227.0	227.0	227.0	227.0
Flow Quantities -					
Percent Blowdown,	(%)	1.00	1.00	1.00	1.00
Blowdown Flow,	(lbs/hr)	505	379	253	126
Feedwater Flow,	(lbs/hr)	50,505	37,879	25,253	12,626
Fuel Flow,	(lbs/hr)	2,741	2,049	1,368	702
Combustion Air Flow,	(lbs/hr)	51,577	38,559	25,751	13,211
Flue Gas Flow LVG System,	(lbs/hr)	54,318	40,608	27,120	13,913
Flue Gas Recirc. Flow,	(lbs/hr)	16,295	12,182	8,136	4,174
Flue Gas Flow w/Recirc.,	(lbs/hr)	70,614	52,790	35,256	18,087
Air/Gas Temperatures -					
Ambient Air Temp.,	(deg F)	-8.0	-8.0	-8.0	-8.0
Comb. Air/FGR Mixture,	(deg F)	70.0	64.1	58.9	54.4
Adiabatic Flame Temp,	(deg F)	3,287.1	3,284.1	3,281.5	3,279.3
Flame Temp w/ Recirc.,	(deg F)	2,684.0	2,676.6	2,670.1	2,664.5
Effec. Furnace Gas Temp,	(deg F)	2,174	2,054	1,886	1,612
Furnace Exit Gas Temp,	(deg F)	2,094	1,963	1,779	1,479
Boiler Exit Gas Temp,	(deg F)	638	580	520	463
Gas Temp. LVG Economizer,	(deg F)	301	278	257	240
Flue Gas Recirc. Temp.	(deg F)	301	278	257	240
System Efficiency -					
Dry Gas Losses,	(%)	5.81	5.38	4.99	4.66
Water From Fuel Fired,	(%)	11.16	11.05	10.96	10.88
Moisture in Air Losses,	(%)	0.00	0.00	0.00	0.00
Radiation Loss,	(%)	0.67	0.94	1.57	4.05
Manufactures Margin,	(%)	1.00	1.00	1.00	1.00
Total Heat Losses,	(%)	18.64	18.39	18.53	20.60
Boiler Efficiency,	(%)	81.36	81.61	81.47	79.40
HHV Heat Input By Fuel,	(mmbtu/hr)	62.131	46.448	31.020	15.914

System Draft Losses -					
Fan Inlet:					
Silencer,	**(inwc)**	**1.50**	**0.89**	**0.42**	**0.12**
Fan Inlet Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Fan Outlet:					
Fan Outlet Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Burner,	**(inwc)**	**7.00**	**4.13**	**1.96**	**0.55**
Convection Zone,	**(inwc)**	**4.20**	**2.31**	**1.01**	**0.26**
Economizer,	**(inwc)**	**0.82**	**0.45**	**0.20**	**0.05**
Outlet Gas Ducts,	**(inwc)**	**0.50**	**0.30**	**0.14**	**0.04**
Total Draft Losses,	**(inwc)**	**15.02**	**8.66**	**4.00**	**1.09**
Furnace Performance -					
Heat Available,	**(mmbtu/hr)**	**55.199**	**41.314**	**27.620**	**14.182**
Heat Absorbed in Furn,	**(mmbtu/hr)**	**12.883**	**11.712**	**9.695**	**6.291**
Liberation Rate,	**(btu/hr-ft^3)**	**77177**	**57696**	**38532**	**19768**
Furnace Release Rate,	**(btu/hr-ft2)**	**98070**	**73301**	**48947**	**25107**
Residence Time,	**(sec)**	**0.662**	**0.928**	**1.489**	**3.287**
Convection Zone Performance -					
Gas Mass Velocity	**(lb/hr-ft2)**	**5,305**	**3,966**	**2,648**	**1,359**
Gas Velocity at Inlet,	**(ft/sec)**	**98.38**	**69.78**	**43.07**	**19.13**
Heat Absorbed in Conv.,	**(mbtu/hr)**	**31.67**	**22.25**	**13.33**	**5.38**
Economizer Performance -					
Gas Mass Velocity	**(lb/hr-ft2)**	**5,614**	**4,197**	**2,803**	**1,438**
Gas Velocity at Inlet	**(ft/sec)**	**44.79**	**31.71**	**19.95**	**9.64**
Water Flow Through Econ,	**(lb/hr)**	**50,505**	**37,879**	**25,253**	**12,626**
Water Mass Velocity,	**(lb/sec-ft2)**	**215.86**	**161.89**	**107.93**	**53.96**
Feedwater Pressure Drop,	**(psi)**	**5.09**	**2.88**	**1.30**	**0.34**
Heat Absorbed in Econ.,	**(mbtu/hr)**	**6.50**	**4.33**	**2.50**	**1.09**

COEN™
COEN COMPANY, INC.

TODD®

January 26, 2011

Victory Energy Operations LLC
10701 East 126th Street, North
Collinsville OK 74021

Att: Dianna Jarvis, Sales Associate

Subject: TODD ultra low NOx RMB Burner Performance for VEO 50,000 lb/hr saturated boiler for Crickett Valley Energy

Dear Dianna:

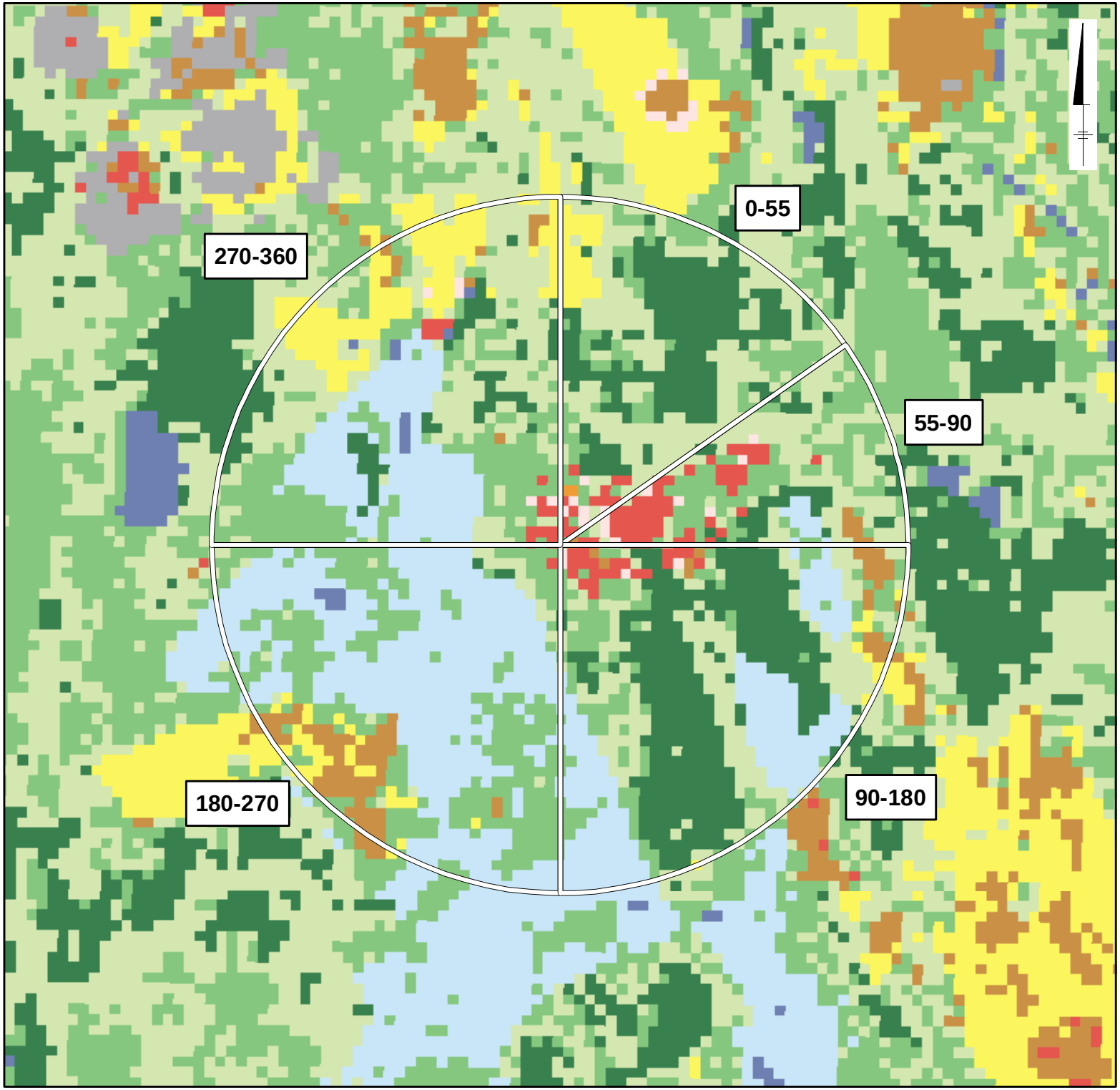
Coen Company Inc. is pleased to confirm emission guarantees when using a TODD ultra low NOx RMB burner mounted on a Victory Energy Operations LLC boiler designed for a nominal 50,000 lb/hr saturated steam. When operating the boiler with an economizer, the RMB burner will operate at approximately 62 mmbtu/hr at 100% boiler load when firing natural gas. The RMB burner will operate at a nominal 15% excess air and 30% flue gas recirculation at 100% boiler load. Emissions are guaranteed from twenty-five (25) to one hundred (100) percent of boiler load, as follows:

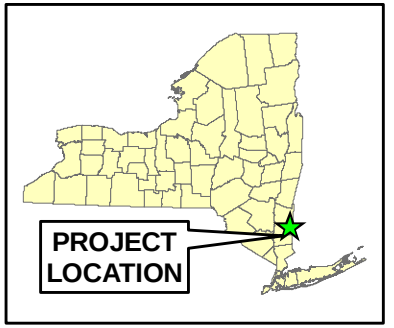
- Maximum emission levels on natural gas, with all concentrations corrected to 3% oxygen, on a dry basis, with high heating value of 1,000 Btu/scf and sulfur content of 0.2 grains/100 scf of fuel:

NOx	9 ppm (0.011 lb/mmbtu)
CO	50 ppm (0.0375 lb/mmbtu)
VOC	3 ppm (0.0015 lb/mmbtu)
PM/PM10/PM2.5	0.005 lb/mmbtu
SOx	0.0006 lb/mmbtu

Yours truly,

Paul Schwartz
Director Industrial Steam
Coen Company Inc.





Legend - NLCD 1992

- Open Water
- Perennial Ice/Snow
- Low Intensity Residential
- High Intensity Residential
- Commercial/Industrial/ Transportation
- Bare Rock/Sand/Clay
- Quarries/Strip Mines/Gravel Pits
- Transitional
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrubland
- Orchards/Vineyards/Other
- Grasslands/Herbaceous
- Pasture/Hay
- Row Crops
- Small Grains
- Fallow
- Urban/Recreational Grasses
- Woody Wetlands
- Emergent Herbaceous Wetlands

41.6762 N, 73.5806 W

0 250 500

Meters

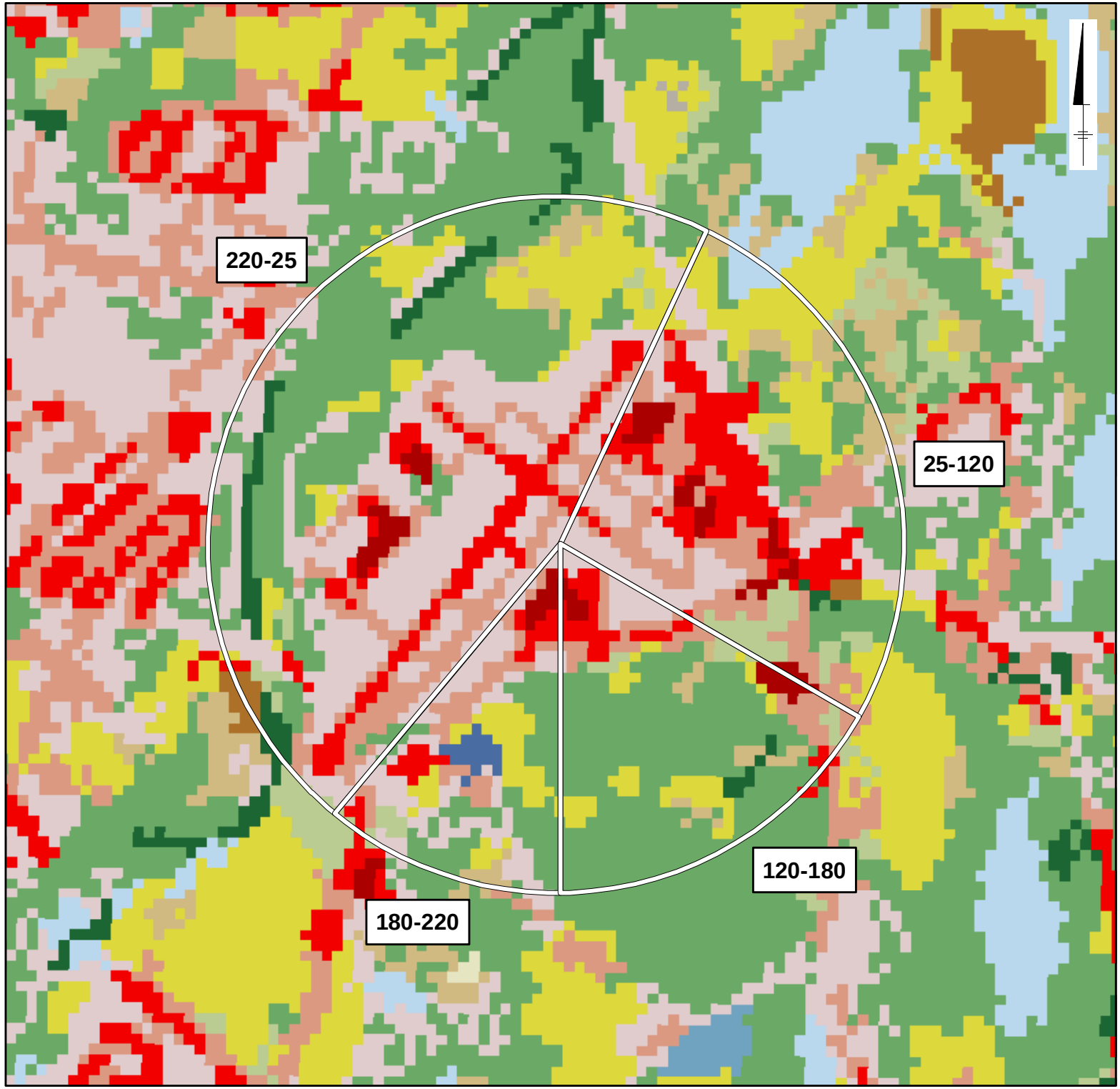
ARCADIS

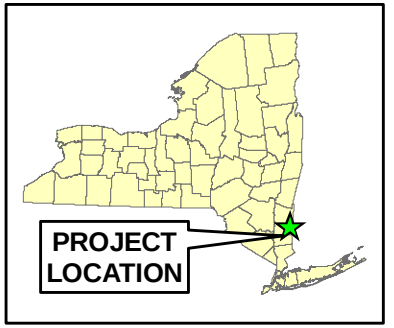
Cricket Valley

Land Use / Land Cover

CO001447.0003

C:\Projects\PP_Misc\20091102_Dutchess\Cricket.mxd - 11/3/2009 @ 9:48:45 AM





Legend

- Open Water
- Perennial Ice/Snow
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

41.626 N, 73.882 W

0 250 500

Meters

ARCADIS

Poughkeepsie Dutchess County Airport

Land Use / Land Cover

CO001447.0003

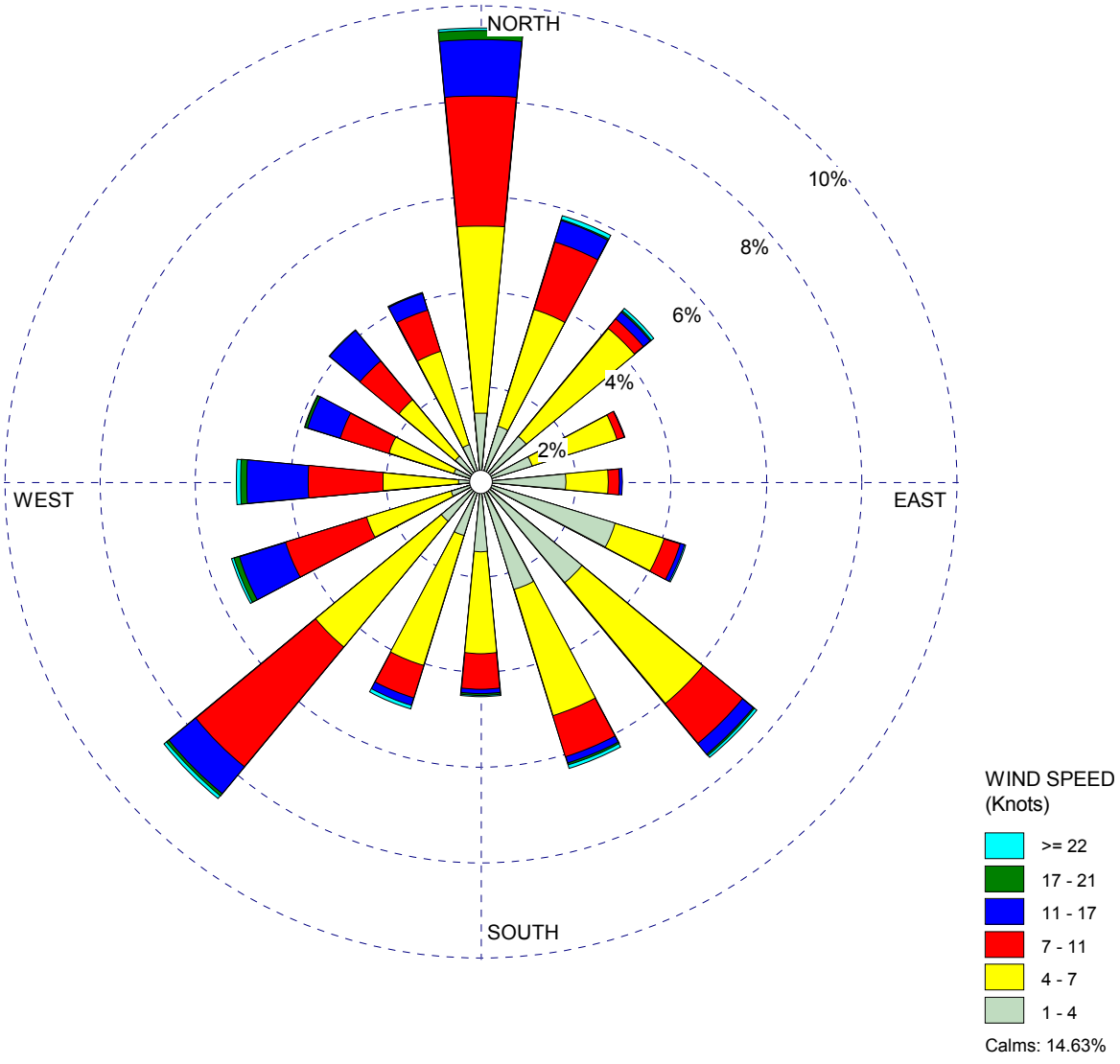
C:\Projects\PP_Misc\20091102_Dutchess\KPOU.mxd - 11/2/2009 @ 5:03:46 PM

WIND ROSE PLOT:

Wind Rose for March 10, 2005 - March 9, 2006
Poughkeepsie Dutchess County Airport (KPOU)

DISPLAY:

Wind Speed
Direction (blowing from)



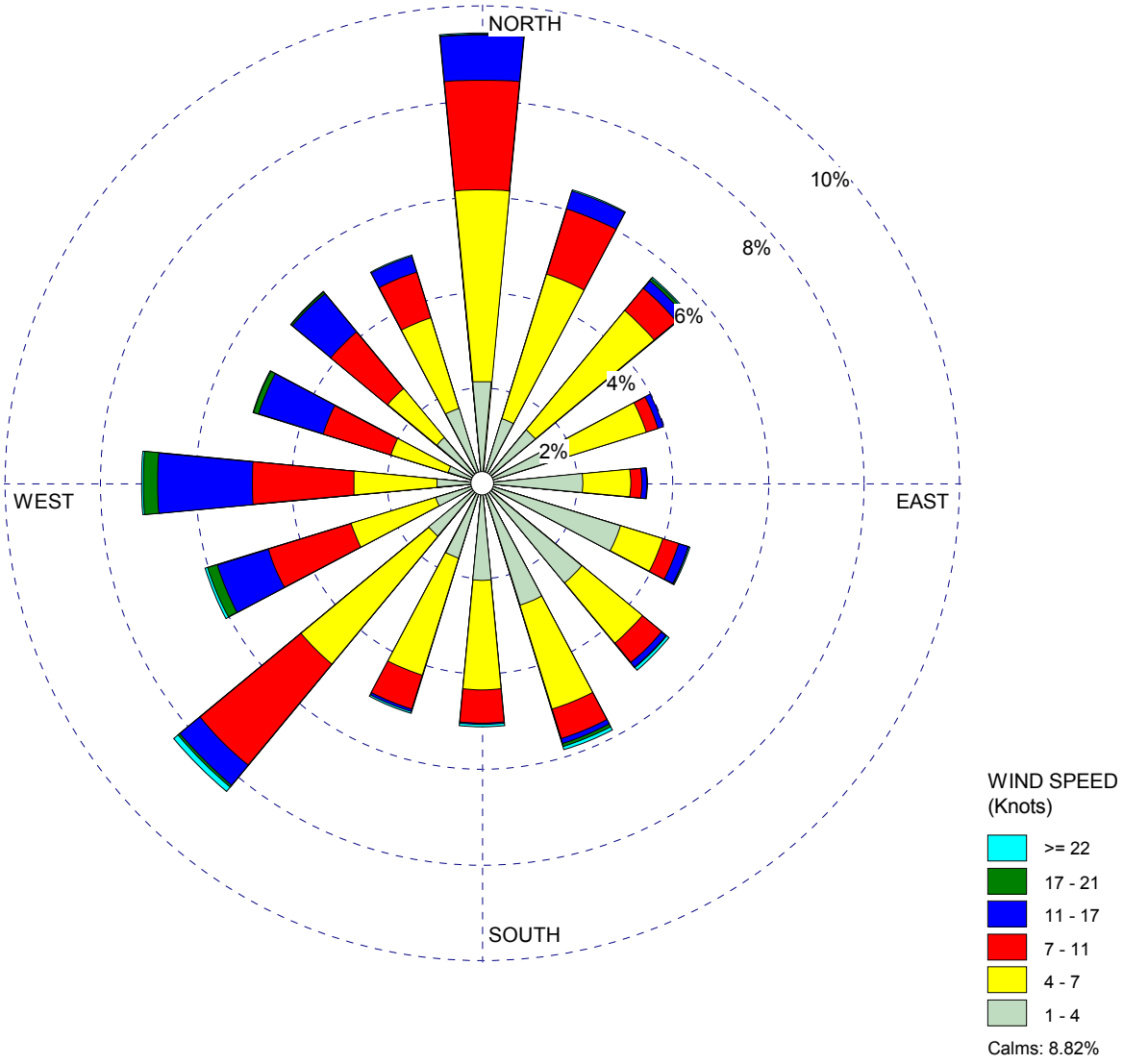
COMMENTS: Winds Derived from 1-minute ASOS Data		COMPANY NAME: **Cricket Valley Energy Center, LLC**	
		MODELER: **ARCADIS**	ARCADIS
	CALM WINDS: **14.63%**	TOTAL COUNT: **8333 hrs.**	
	AVG. WIND SPEED: **5.43 Knots**	DATE: **2/1/2011**	PROJECT NO.:

WIND ROSE PLOT:

Wind Rose for March 10, 2006 - March 9, 2007
Poughkeepsie Dutchess County Airport (KPOU)

DISPLAY:

Wind Speed
Direction (blowing from)



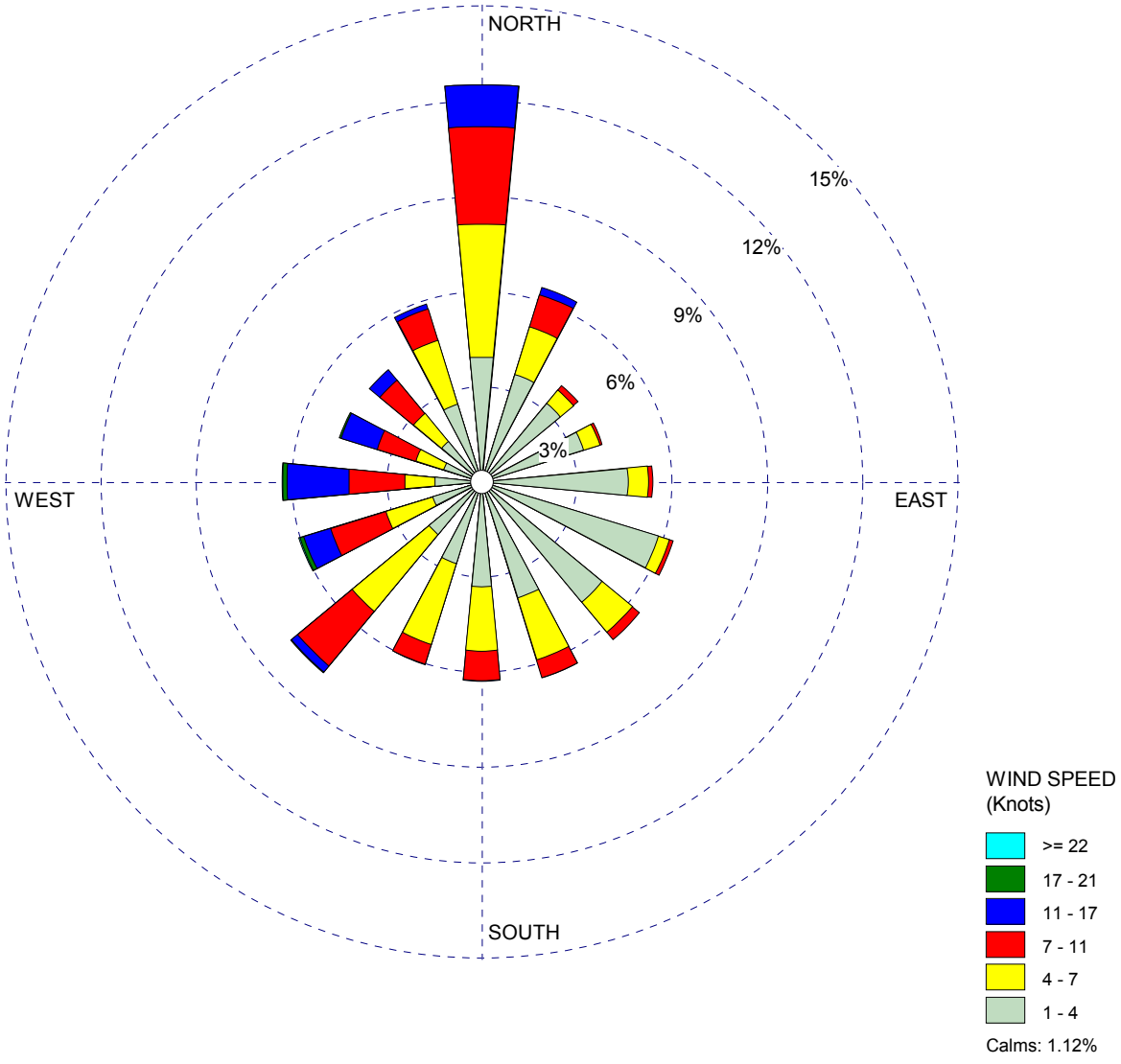
COMMENTS: Winds Derived from 1-minute ASOS Data		COMPANY NAME: **Cricket Valley Energy Center, LLC**	
		MODELER: **ARCADIS**	ARCADIS
	CALM WINDS: **8.82%**	TOTAL COUNT: **8571 hrs.**	
	AVG. WIND SPEED: **5.63 Knots**	DATE: **2/1/2011**	PROJECT NO.:

WIND ROSE PLOT:

Wind Rose for March 10, 2007 - March 9, 2008
Poughkeepsie Dutchess County Airport (KPOU)

DISPLAY:

Wind Speed
Direction (blowing from)



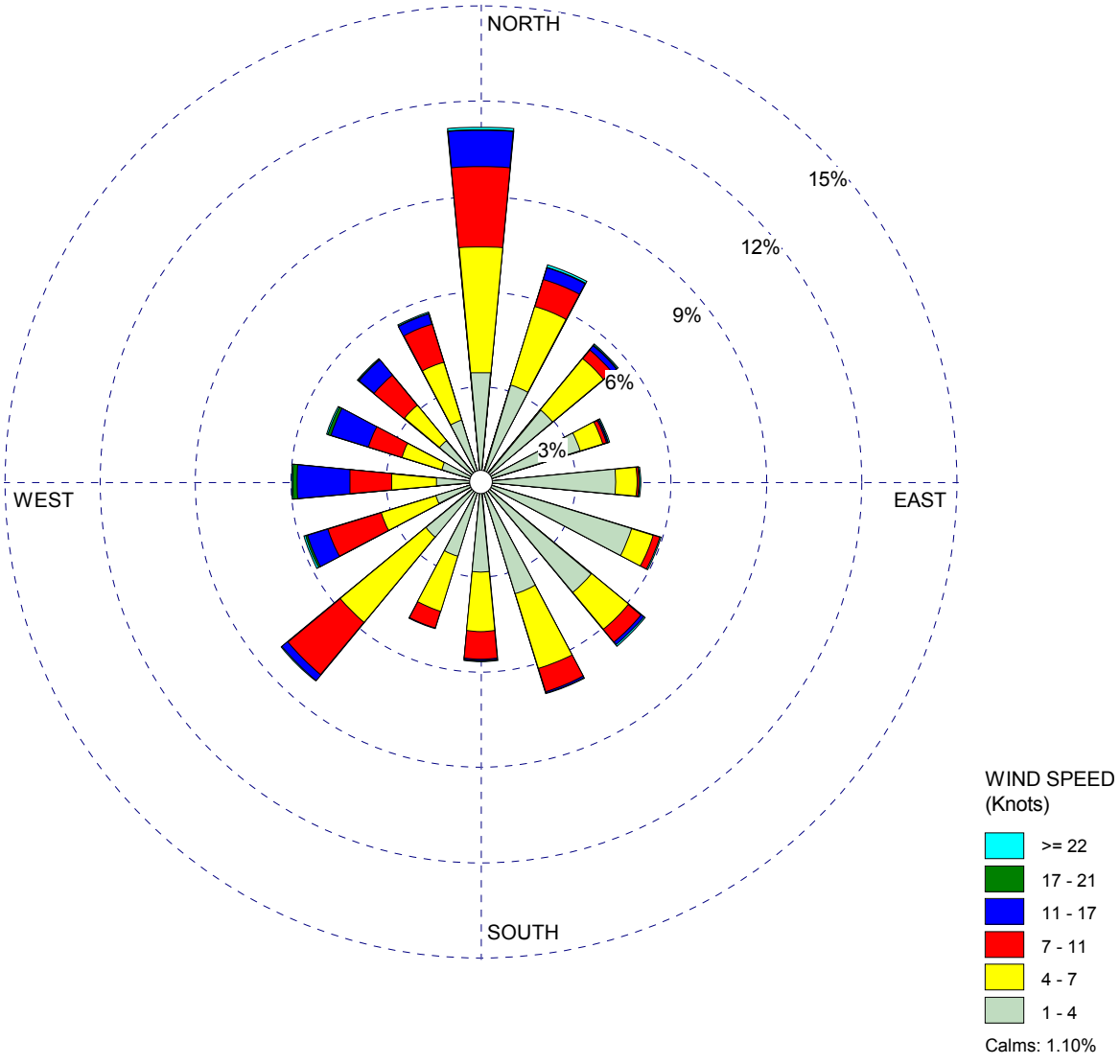
COMMENTS: Winds Derived from 1-minute ASOS Data		COMPANY NAME: **Cricket Valley Energy Center, LLC**	
		MODELER: **ARCADIS**	ARCADIS
	CALM WINDS: **1.12%**	TOTAL COUNT: **8491 hrs.**	
	AVG. WIND SPEED: **4.77 Knots**	DATE: **2/1/2011**	PROJECT NO.:

WIND ROSE PLOT:

Wind Rose for March 10, 2008 - March 9, 2009
Poughkeepsie Dutchess County Airport (KPOU)

DISPLAY:

Wind Speed
Direction (blowing from)



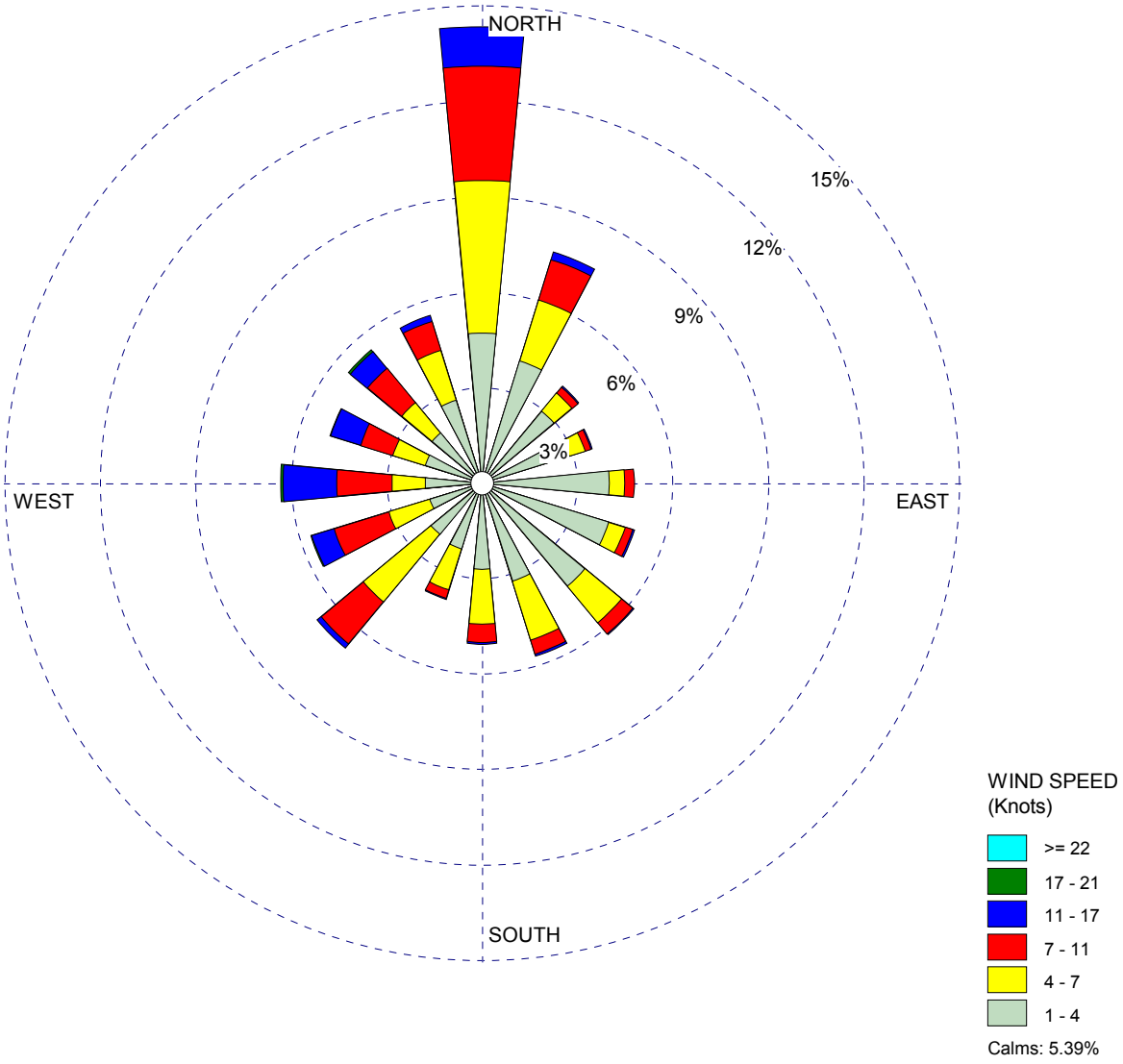
COMMENTS: Winds Derived from 1-minute ASOS Data		COMPANY NAME: **Cricket Valley Energy Center, LLC**	
		MODELER: **ARCADIS**	ARCADIS
	CALM WINDS: **1.10%**	TOTAL COUNT: **8432 hrs.**	
	AVG. WIND SPEED: **5.02 Knots**	DATE: **2/1/2011**	PROJECT NO.:

WIND ROSE PLOT:

Wind Rose for March 10, 2009 - March 9, 2010
Poughkeepsie Dutchess County Airport (KPOU)

DISPLAY:

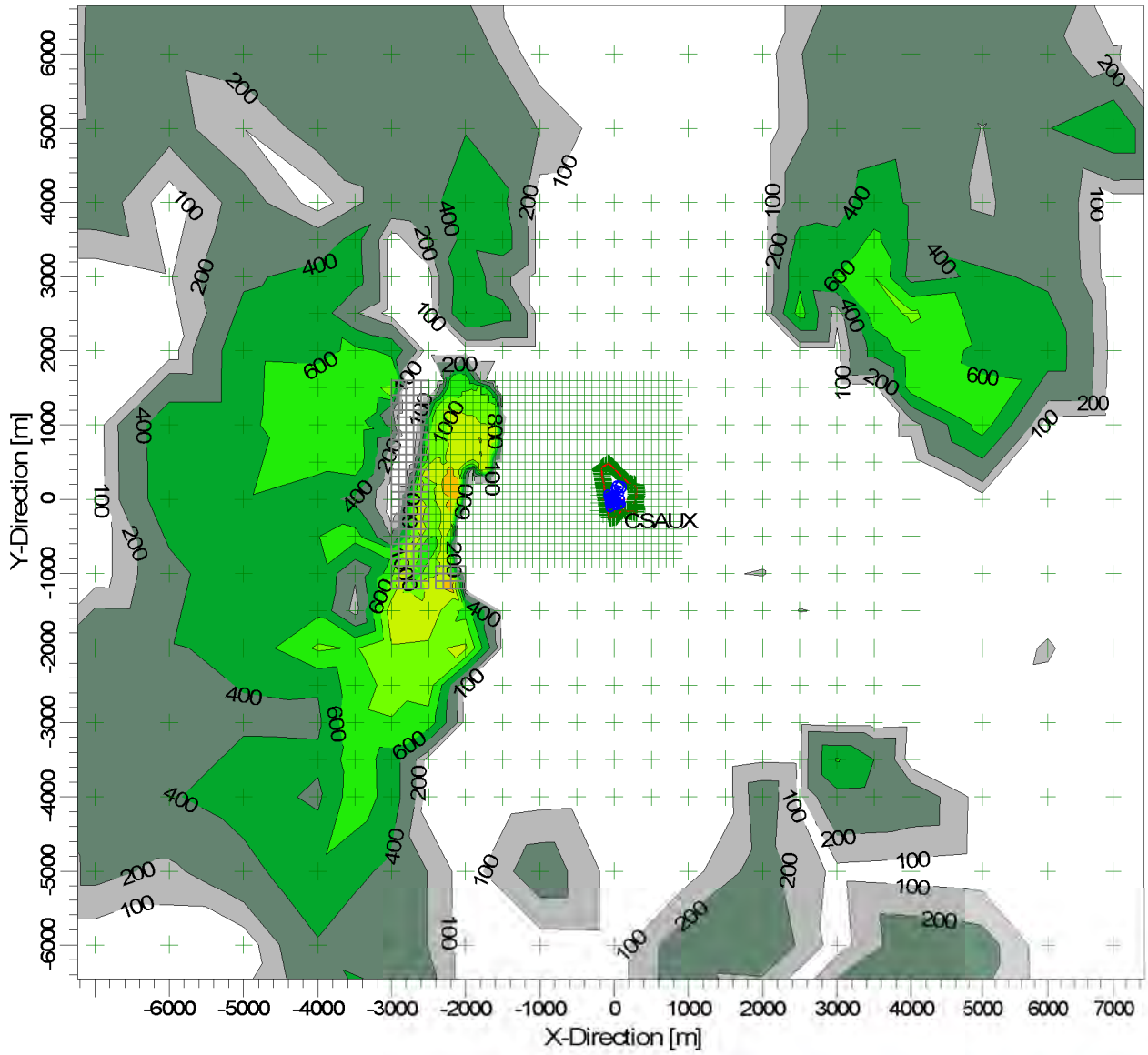
Wind Speed
Direction (blowing from)



COMMENTS: Winds Derived from 1-minute ASOS Data		COMPANY NAME: **Cricket Valley Energy Center, LLC**	
		MODELER: **ARCADIS**	ARCADIS
	CALM WINDS: **5.39%**	TOTAL COUNT: **8408 hrs.**	
	AVG. WIND SPEED: **4.66 Knots**	DATE: **2/1/2011**	PROJECT NO.:

PROJECT TITLE:

Highest 1-Hour Average CO - Cold Start plus Auxiliary Boiler
Cricket Valley Energy Project



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

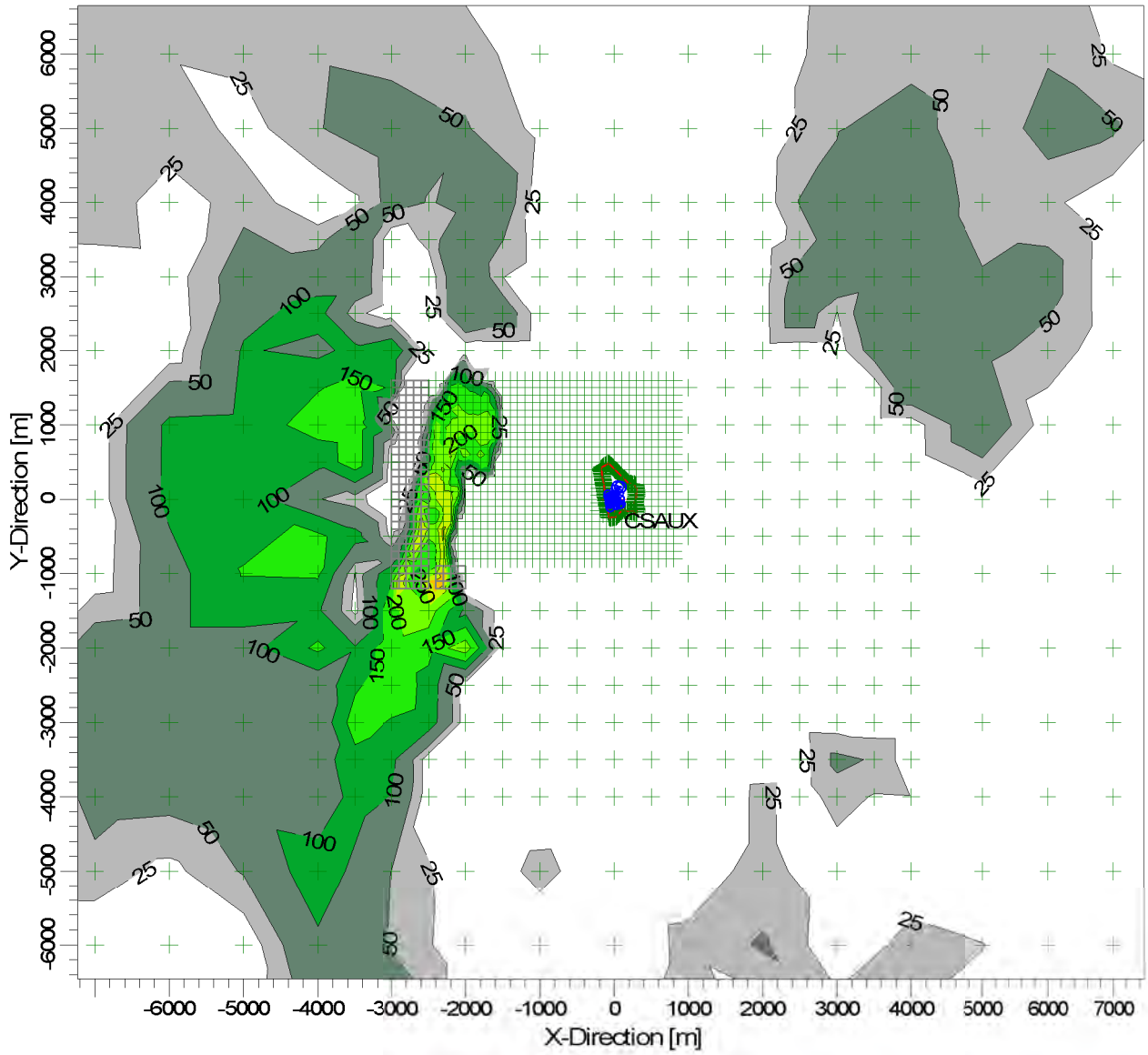
ug/m^3

3 100 200 400 600 800 1000 1200 1600 2000

COMMENTS: 2006 Emission Rate 89.1 g/s SIL = 2000 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **1737**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:92,373 0 3 km	
	MAX: **1483.55414 ug/m^3**	DATE: **2/1/2011**	PROJECT NO.:

PROJECT TITLE:

Highest 8-Hour Average CO - Cold Start plus Auxiliary Boiler
Cricket Valley Energy Project



PLOT FILE OF HIGH 1ST HIGH 3-HR VALUES FOR SOURCE GROUP: ALL

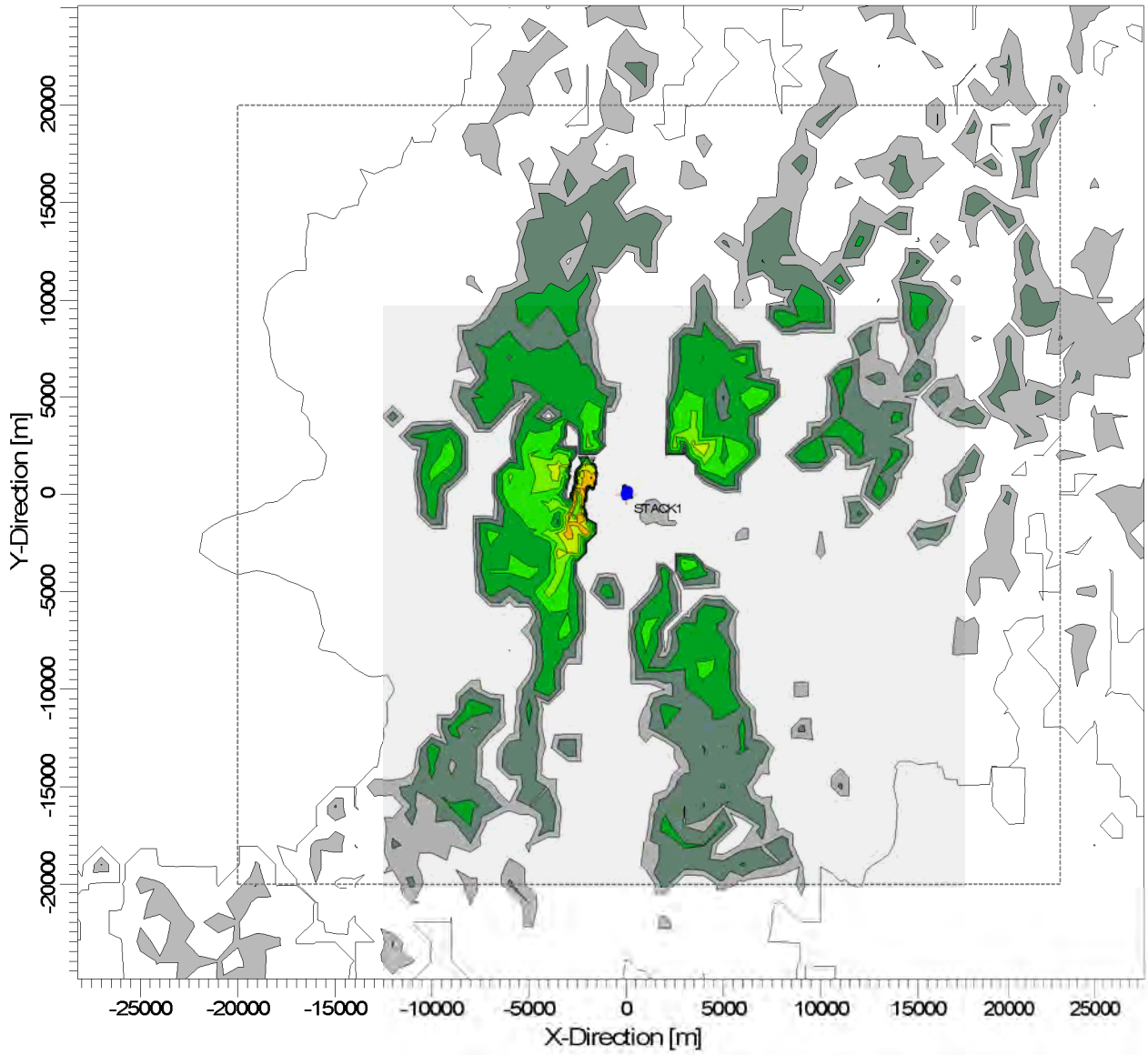
ug/m^3

1 25 50 100 150 200 250 300 400 500

COMMENTS: 2007 Maximum 8-hour impact based on 3-hour average Emission Rate 89.1 g/s for 2.4 hours (26.87 g/s after adjustment) SIL = 500 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**
	RECEPTORS: **1737**	MODELER: **ARCADIS**
	OUTPUT TYPE: **Concentration**	SCALE: 1:92,373 0 3 km
	MAX: **342.66575 ug/m^3**	DATE: **2/1/2011**
		PROJECT NO.:

PROJECT TITLE:

Predicted Five-Year Average Maximum 1-Hour NO2 Impact
Cricket Valley Energy - Cold Start plus Auxiliary Boiler



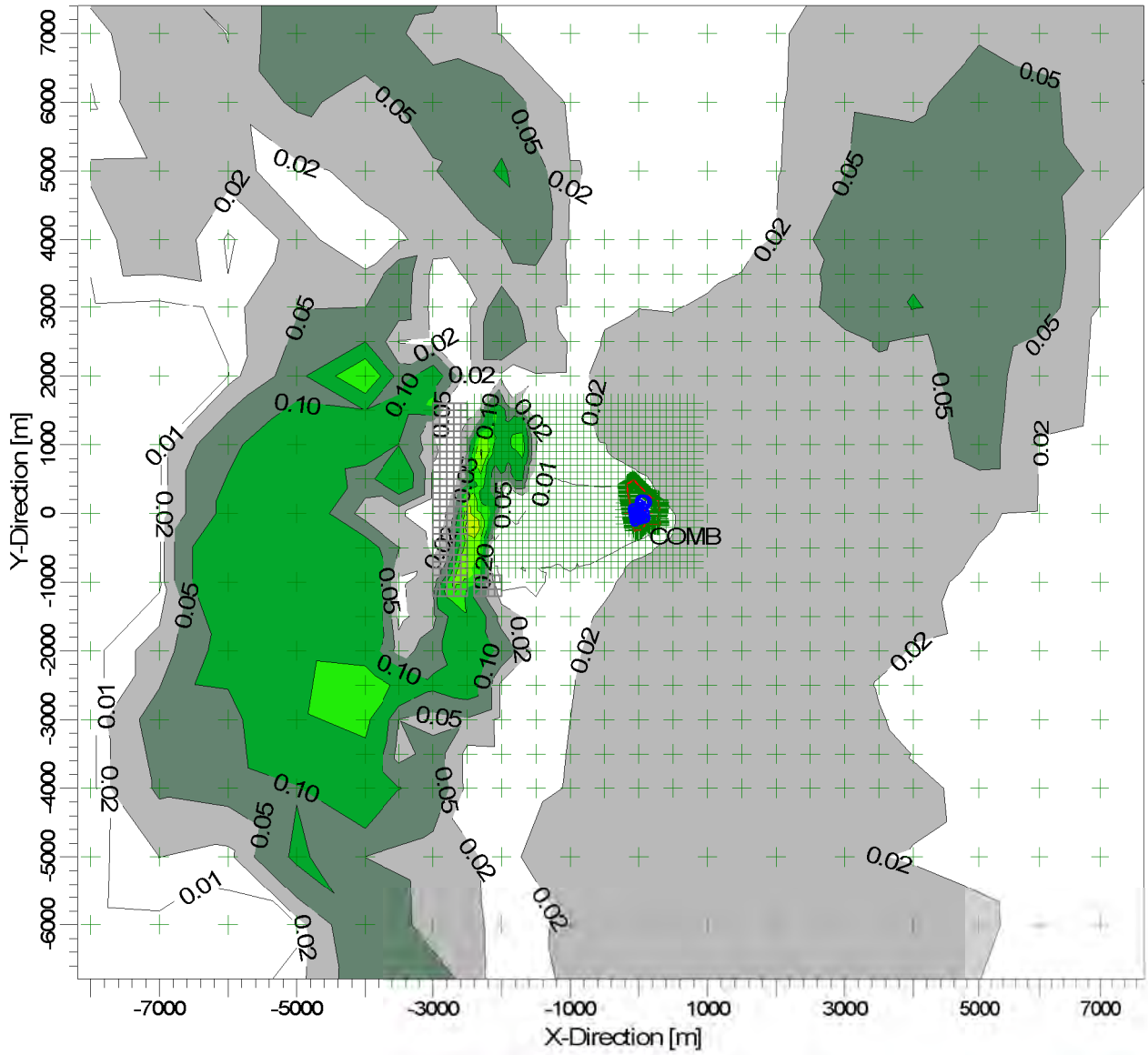
PLOT FILE OF 1ST-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

1.000 5.000 7.500 12.000 20.000 30.000 40.000 50.000 65.000

COMMENTS: Significant Impact Level 7.5 ug/m3 (4 ppb)	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **3251**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:352,517 0 10 km	
	MAX: **68.57208 ug/m^3**	DATE: **1/28/2011**	PROJECT NO.:

PROJECT TITLE:

Predicted Annual NO2 - Maximum Annual Average
Cricket Valley Energy - 100% Load with DB, 59 F, 2008



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: COMB

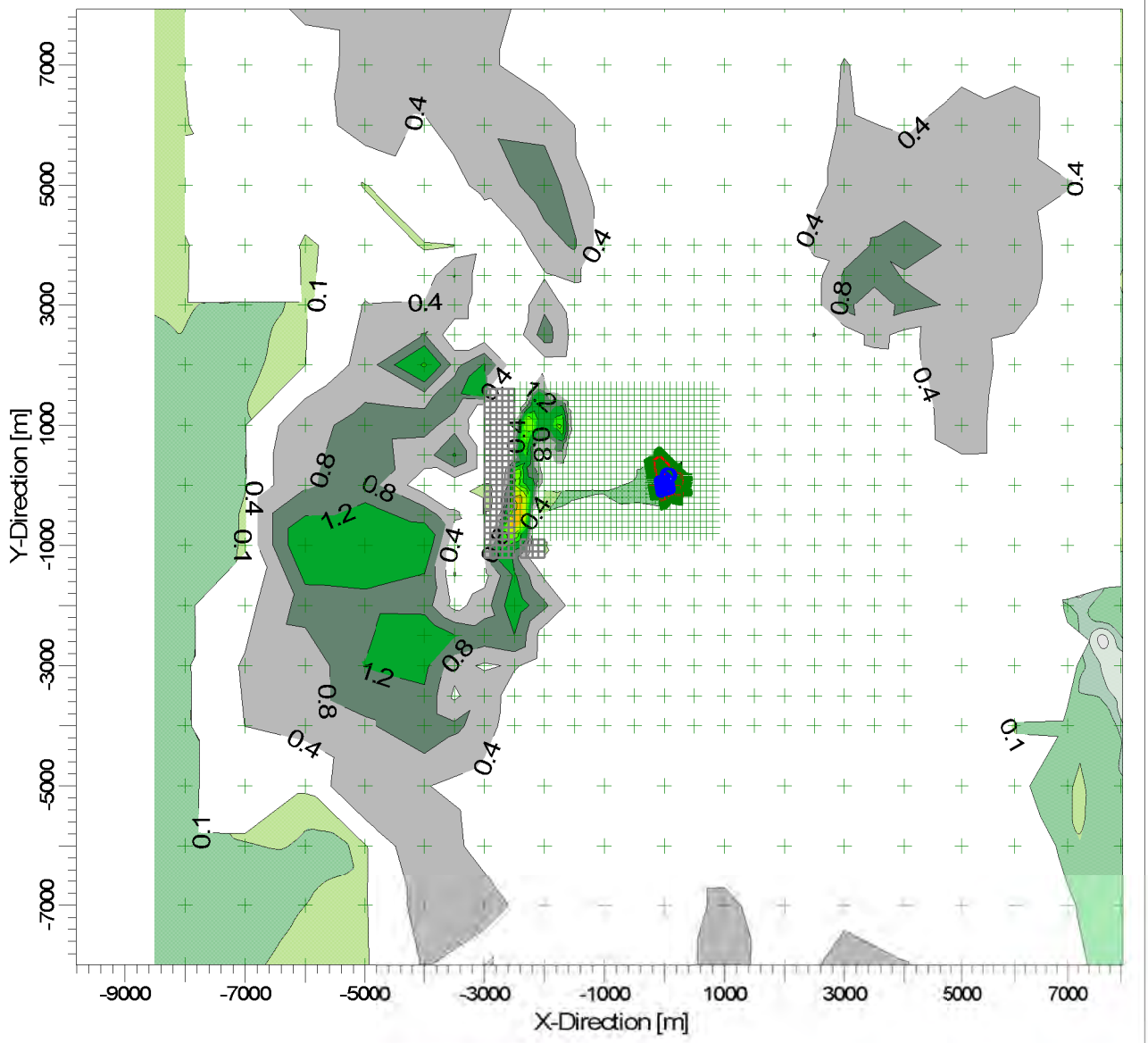
ug/m^3

0.010 0.020 0.050 0.100 0.200 0.300 0.400 0.500 0.700 1.000

COMMENTS: Combined stacks. Emission Rate: 7.068 g/s SIL: 1.0 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **1701**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:100,000 0 3 km	
	MAX: **0.50991 ug/m^3**	DATE: **1/30/2011**	PROJECT NO.:

PROJECT TITLE:

Cricket Valley Energy
Maximum 5-Year Average 24-Hour Impact for PM-2.5



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: COMB

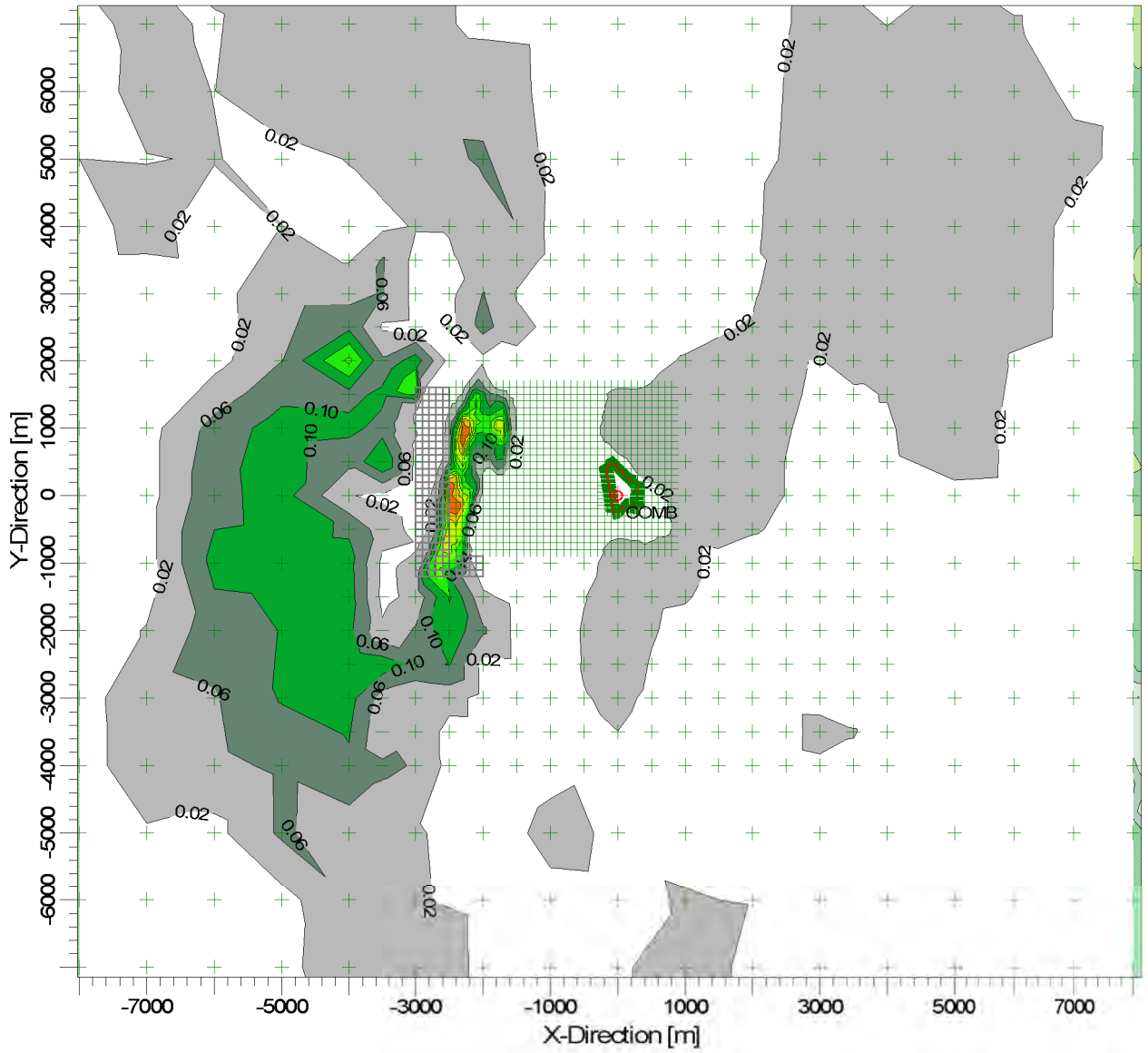
ug/m^3

0.1 0.4 0.8 1.2 1.8 2.2 2.6 3.0 3.4 3.8

COMMENTS:	SOURCES: 2	COMPANY NAME: Cricket Valley Energy Center, LLC	
	RECEPTORS: 1737	MODELER: ARCADIS	ARCADIS
	OUTPUT TYPE: Concentration	SCALE: 1:112,165 (0 — 4 km)	
	MAX: 3.38385 ug/m^3	DATE: 10/8/2010	PROJECT NO.:

PROJECT TITLE:

PM-2.5 Annual 5-year average
3 Turbines Combined at 49% Load, 59F



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: COMB

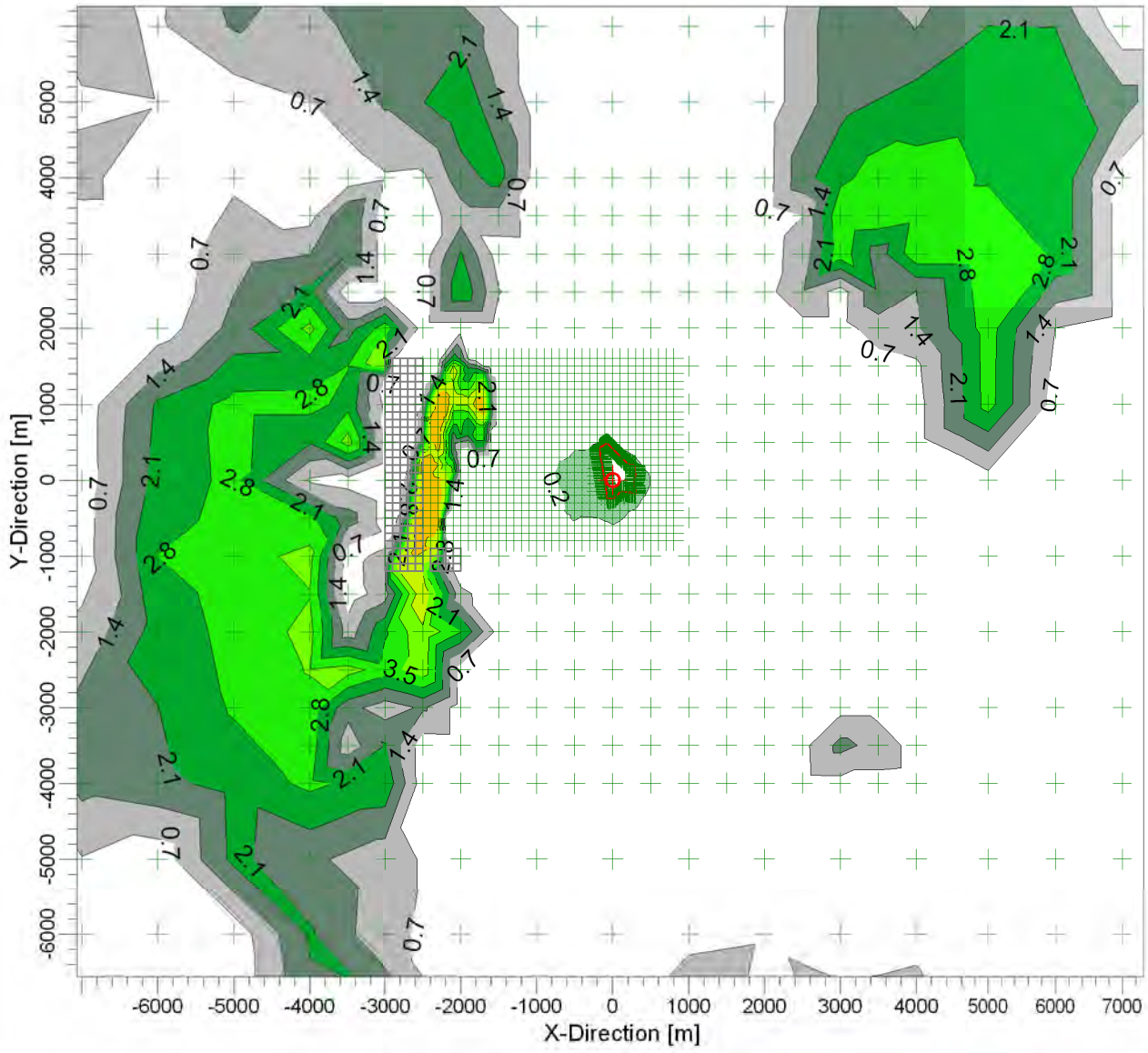
ug/m^3

0.000 0.020 0.060 0.100 0.140 0.180 0.210 0.240 0.270 0.300

COMMENTS: Emission rate 3.66 g/s SIL = 0.30 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **1701**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:101,564 0 4 km	
	MAX: **0.29775 ug/m^3**	DATE: **1/30/2011**	PROJECT NO.:

PROJECT TITLE:

Predicted 1-Hour SO2 - Five-Year Average Maximum
Cricket Valley Energy - 100% Load with DB, 59 F



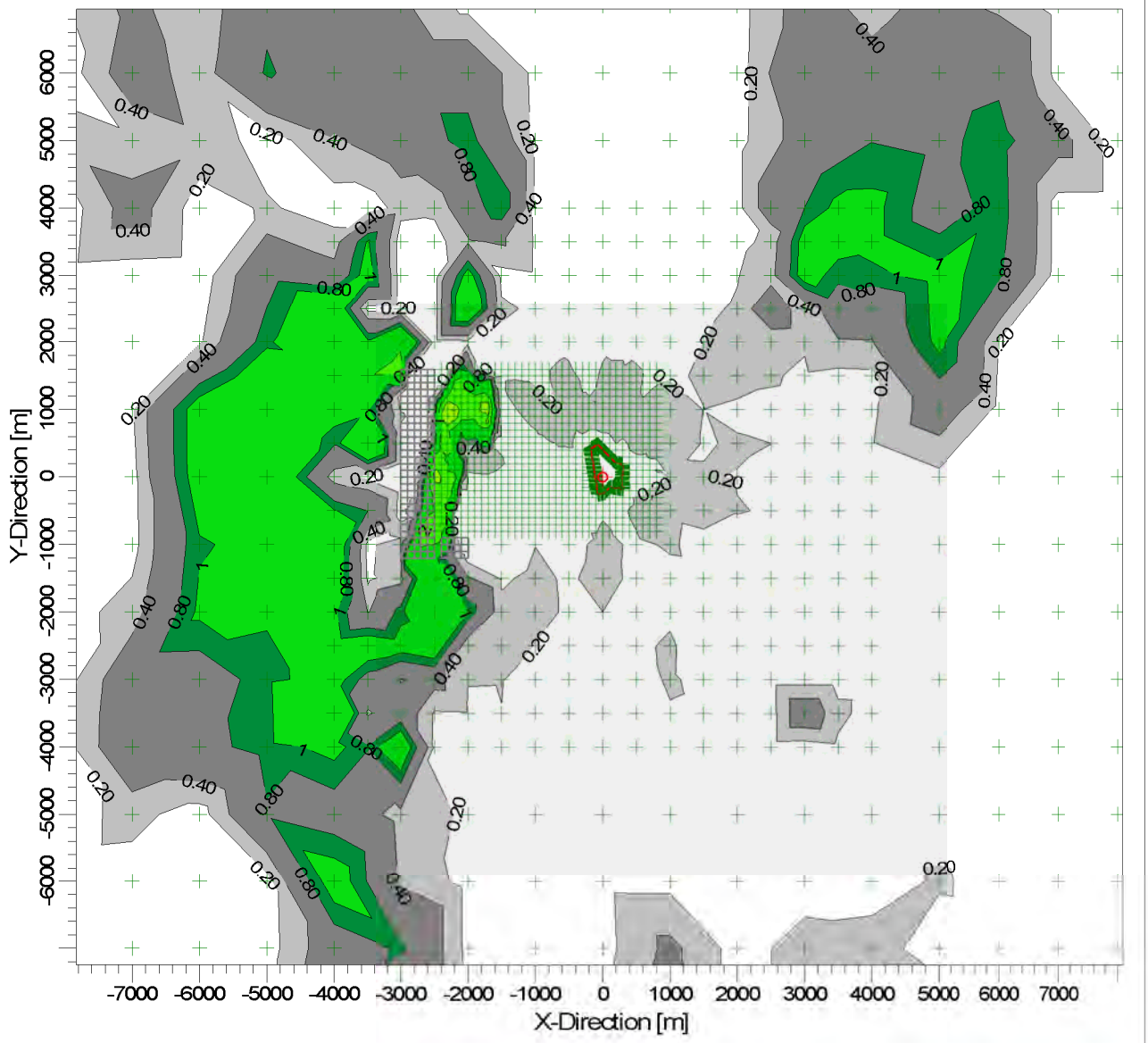
PLOT FILE OF 1ST-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: COMB ug/m^3

0.2 0.7 1.4 2.1 2.8 3.5 4.2 5.2 6.5 7.8

COMMENTS:	SOURCES: 2	COMPANY NAME: Cricket Valley Energy Center, LLC	
	RECEPTORS: 1737	MODELER: ARCADIS	ARCADIS
	OUTPUT TYPE: Concentration	SCALE: 1:90,374 (0 — 3 km)	
	MAX: 6.29191 ug/m^3	DATE: 1/25/2011	PROJECT NO.:

PROJECT TITLE:

Predicted Maximum 3-Hour Average SO2
Cricket Valley Energy - 100% Load with DB, 59 F, 2005

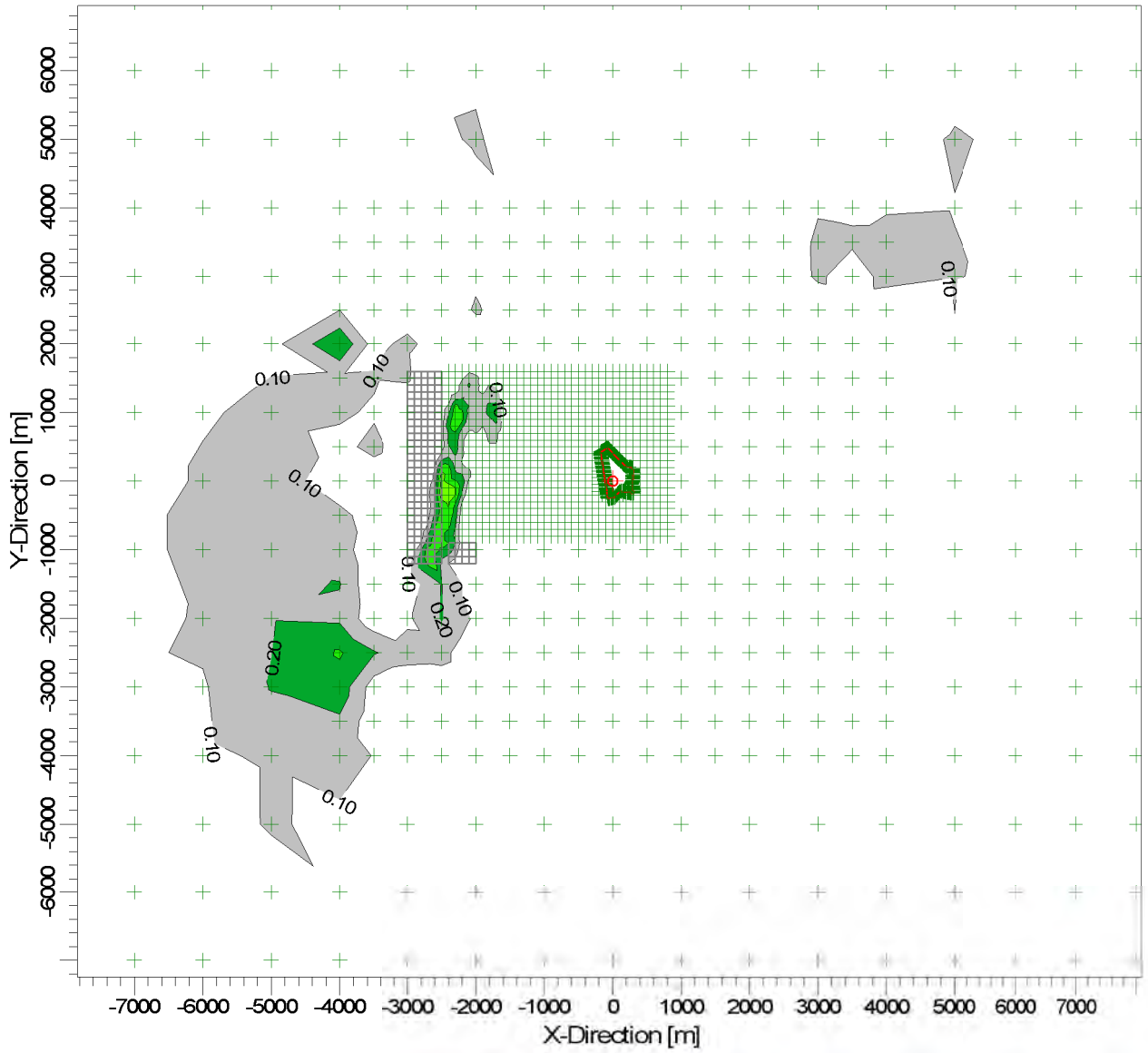


PLOT FILE OF HIGH 1ST HIGH 3-HR VALUES FOR SOURCE GROUP: COMB ug/m^3

COMMENTS: Combined stacks. Emission Rate: 1.344 g/s SIL: 25 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **1701**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:100,000 0 3 km	
	MAX: **4.06172 ug/m^3**	DATE: **1/30/2011**	PROJECT NO.:

PROJECT TITLE:

Predicted Maximum 24-hour Average SO2
Cricket Valley Energy - 100% Load with DB, 59 F, 2008



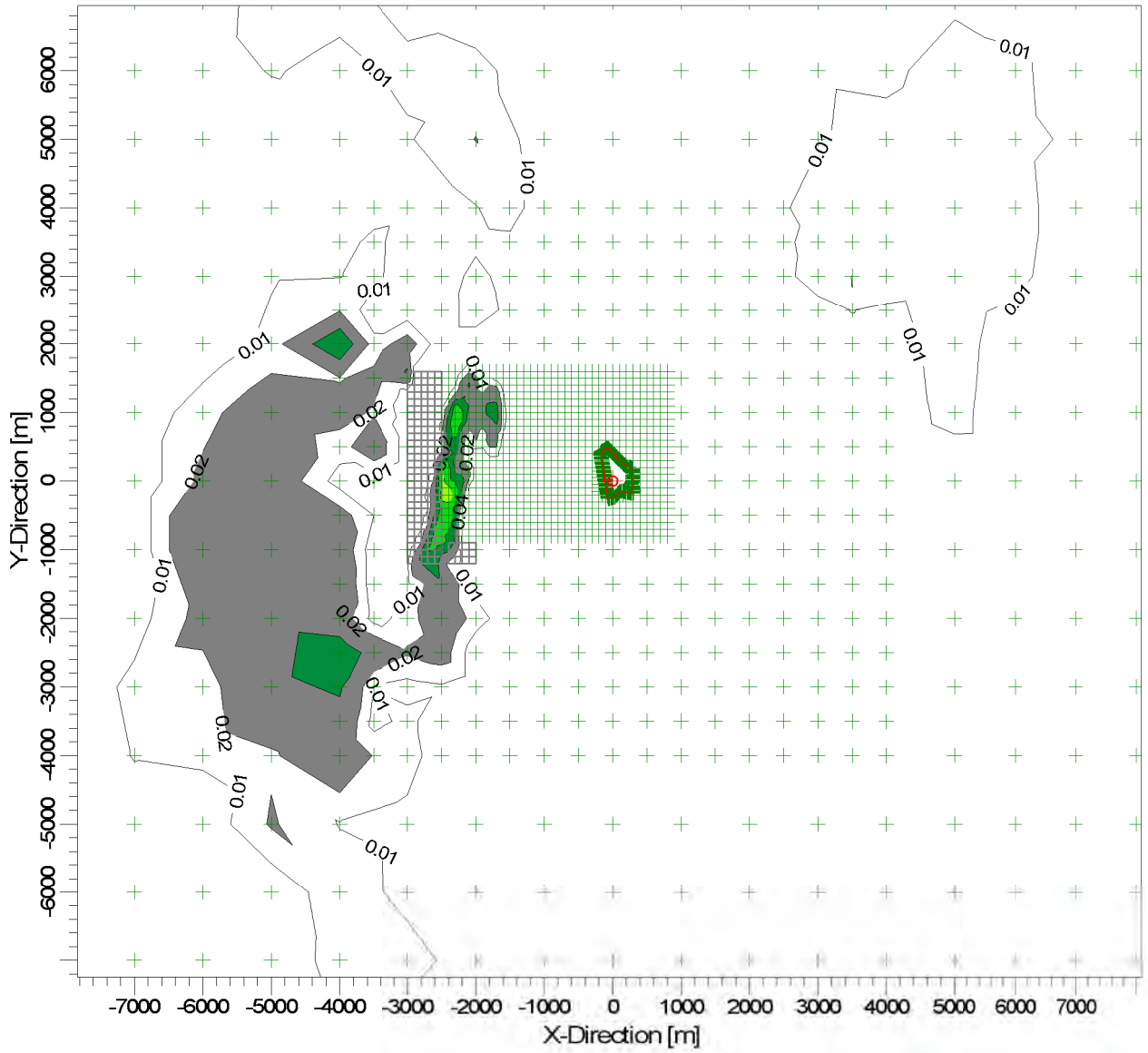
PLOT FILE OF HIGH 8TH HIGH 24-HR VALUES FOR SOURCE GROUP: COMB ug/m^3

0.10 0.20 0.30 0.40 0.50 1.00 2.00 5.00

COMMENTS: Combined stacks. Emission Rate: 1.344 g/s SIL: 5.0 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**	
	RECEPTORS: **1701**	MODELER: **ARCADIS**	ARCADIS
	OUTPUT TYPE: **Concentration**	SCALE: 1:100,000 0 3 km	
	MAX: **0.48581 ug/m^3**	DATE: **1/30/2011**	PROJECT NO.:

PROJECT TITLE:

Predicted Maximum Annual Average SO2
Cricket Valley Energy - 100% Load with DB, 59 F, 2008



PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: COMB

ug/m^3

0.01 0.02 0.04 0.06 0.08 0.15 0.25 0.50 1.00

COMMENTS: Combined stacks. Emission Rate: 1.344 g/s SIL: 1.0 ug/m3	SOURCES: **1**	COMPANY NAME: **Cricket Valley Energy Center, LLC**
	RECEPTORS: **1701**	MODELER: **ARCADIS**
	OUTPUT TYPE: **Concentration**	SCALE: 1:100,000 0 3 km
	MAX: **0.09696 ug/m^3**	DATE: **1/30/2011**

PROJECT NO.: