20.2.70 NMAC
AIR QUALITY
PERMIT RENEWAL APPLICATION

For

PUBLIC SERVICE COMPANY
OF
NEW MEXICO

AFTON GENERATING STATION
La Mesa, NM

Presently Operating Under
Permit #P-211R2

PREPARED BY
MONTROSE AIR QUALITY SERVICES, LLC
ALBUQUERQUE, NM
JUNE 2020

MONTROSE
AIR QUALITY SERVICES

Received
JUN 17 2020
Air Quality Bureau

June 12, 2020

Mr. Joseph Kimbrell
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87507-3313

Subject: Operating Permit Renewal Application for Permit #P-211R2, Afton Generating Station (AGS)

Dear Mr. Kimbrell:

Attached please find two (2) hardcopies and two (2) electronic (CD) copies of the 20.2.70 NMAC Permit Renewal Application for Permit #P-211R2 and Acid Rain Renewal Application for Permit #P-211AR3, PNM's Afton Generating Station (AGS). This letter is attached to the application copy that has the original notarized signature page (Section 22).

This application is to fulfill the renewal requirements of 20.2.70.300.B.2NMAC to submit a renewal application 12 months prior to expiration of the permit. No physical changes or changes in the method of operation have been made to AGS since Title V Operating Permit #P-211R2 was issued. Updates to this permit include monitoring conditions that were issued under Technical Revision Permit PSD2466-M4R1 signed January 9, 2019. All information is being submitted on the most recent versions of the Universal permit application forms.

Please let me know if you have any questions or need additional information.

Sincerely,

Paul Wade

Paul Wade
Sr. Project Manager
Montrose Air Quality Services, LLC

Cc: Robin DeLapp, PNM

Montrose Air Quality Services, LLC
3500 Comanche Road NE Suite G
Albuquerque, NM 87107-4546

T: 505.830.9680 ext. 6
F: 505.830.9678
Pwade@montrose-env.com
www.montrose-env.com

New Mexico Environment Department Air Quality Bureau

Acid Rain Program

Instructions for Phase II Permit Application

(20.2.84 NMAC and 40 CFR 72.30 – 72.31)

The Acid Rain Program requires the designated representative to submit an Acid Rain permit application for each source with an affected unit. A complete Certificate of Representation must be received by EPA before the permit application is submitted to the New Mexico Environment Department Air Quality Bureau (NMED/AQB). A complete Acid Rain permit application, once submitted, is binding on the owners and operators of the affected source and is enforceable in the absence of a permit until the NMED/AQB either issues a permit to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the New Mexico Environment Department Air Quality Bureau at (505) 476-4300.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 287-1730 (for ORIS codes), or (202) 287-1927 (for facility codes).

STEP 2 For column "a," identify each affected unit at the affected source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements.

For columns "c" and "d," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

Submission Deadlines

For new units, an initial Acid Rain permit application must be submitted to the NMED/AQB 24 months before the date the unit commences operation. Acid Rain permit renewal applications must be submitted at least 12 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the NMED/AQB operating permits regulation.

Submission Instructions

Mail this form to:

New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

Along with this application, include a copy of the Certificate of Representation Form and relevant permitting forms submitted to EPA (ie, Phase II NOx Compliance Plan and Averaging Plan and New Unit Exemption Form).

If you have questions regarding this form, contact the New Mexico Environment Department Air Quality Bureau at (505) 476-4300 or call EPA's Acid Rain Hotline at (202) 343-9620.

Paperwork Burden Estimate

The burden on the public for collecting and reporting information under this request is estimated at 17 hours per response. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave, NW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB#2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. ***Do not submit forms to these addresses; see the submission instructions above.***

NEW MEXICO ENVIORNMENT DEPARTMENT
AIR QUALITY BUREAU
ACID RAIN PROGRAM

PHASE II PERMIT APPLICATION

For more information, see instructions and refer to 20.2.84 NMAC and 40 CFR 72.30 – 72.31

This submission is: [ ] **New** [X] **Revised**

STEP 1: Identify the source by plant name, State, and ORIS code.

Plant Name	**State**	**ORIS Code**
Afton Generating Station	N.M.	55210

STEP 2: Enter the unit ID# for each affected unit at the affected source in column "A." For new units, enter the requested information in columns "C" and "D."

A	B	C	D
Unit ID #	Unit will hold Allowances in Accordance with 40 CFR Part 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	YES		
	YES		
	YES		
	YES		
	YES		
	YES		
	YES		
	YES		
	YES		
	YES		

STEP 3: Complete the additional information sheet and provide here or on the attached sheet a brief description of each unit.

Description of unit:

Unit 1: General Electric Frame 7FA Natural Gas Combustion Turbine rated at 164 MW and heat recovery steam generator equipped with duct burners

Additional Information

Applicant: (Facility Owner and Operator)	Name	Public Service Company of New Mexico
	Mailing Address	2401 Aztec Road NE, Mailstop Z100 Albuquerque, NM 87107
	Phone:	505.241.2016
	Fax:	505.241.2384

Name and Location of Proposed Facility:	Facility Name: Afton Generating Station Driving Directions: Go 2 miles south of La Mesa on SR 28. Turn west onto Afton Road. Proceed west 10.2 miles. The AGS facility is on the north side of Afton Road, immediately east of the Afton (EPNG) Compressor Station. Address: 10100 W. Afton Rd. #5 La Mesa, NM 88044	
	Section:	21
	Range:	1E
	Township:	25S
	Elevation:	4,220 ft.
	Latitude:	32° 06' 52.55"
	Longitude:	106° 50' 45.96"
	UTM Zone:	13
	UTMH:	325,830
	UTMV:	3,554,630

SIC Code: (Primary, Secondary)

Designated Representative (DR): (Name, or provide copy of EPA Certificate of Representation form.)	Name	Randy Pickering
	Title	Director of Plant Management
	Company	Public Service of New Mexico
	Phone:	575.233.5152 Fax 575.233.5152
	Email address:	Randy.Pickering@pnm.com
Alternate DR:	Name	Marcos Delgado
	Title	Craft Supervisor
	Company	Public Service of New Mexico
	Phone:	575.233.5156 Phone: 575.233.5152
	Email address:	Marcos.Delgado@pnm.com
Contact Person:	Name	Robin DeLapp
	Title	Technical Project Manager
	Company	Public Service of New Mexico
	Phone:	505.241.2016 Fax: 505.241.2384
	Email address:	robin.delapp@pnmresources.com

STEP 4: Read the standard requirements and certification, enter the name of the designated representative, sign and date

Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:
(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
(2) The owners and operators of each affected source and each affected unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1)Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2)The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension

Liability, Cont'd.

plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 5: Read the certification statement, sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Randy Pickering Name	
Designated Representative or Alternate Representative Signature	Date 2/6/20

20.2.70 NMAC
AIR QUALITY
PERMIT RENEWAL APPLICATION

For

PUBLIC SERVICE COMPANY
OF
NEW MEXICO

AFTON GENERATING STATION
La Mesa, NM

Presently Operating Under
Permit #P-211R2

PREPARED BY
MONTROSE AIR QUALITY SERVICES, LLC
ALBUQUERQUE, NM
JUNE 2020

Mail Application To:		For Department use only:
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		Received JUN 17 2020 Air Quality Bureau AIRS No.:

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. See Section 1-I for submittal instructions for other permits.

This application is being submitted as (check all that apply): ☐ Request for a No Permit Required Determination (no fee)
☐ **Updating** an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
Construction Status: ☐ Not Constructed ☐ Existing Permitted (or NOI) Facility ☐ Existing Non-permitted (or NOI) Facility
Minor Source: ☐ a NOI 20.2.73 NMAC ☐ 20.2.72 NMAC application/revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) X Title V renewal ☐ TV minor mod. ☐ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

X I acknowledge that a pre-application meeting is available to me upon request. ☐ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.

☐ $500 NSR application Filing Fee enclosed OR ☐ The full permit fee associated with 10 fee points (required w/ streamline applications).

☐ Check No.: in the amount of

X I acknowledge the required submittal format for the hard copy application is printed double sided 'head-to-toe', 2-hole punched (except the Sect. 2 landscape tables is printed 'head-to-head'), numbered tab separators. Incl. a copy of the check on a separate page.

☐ This facility qualifies to receive assistance from the Small Business Environmental Assistance program (SBEAP) and qualifies for 50% of the normal application and permit fees. Enclosed is a check for 50% of the normal application fee which will be verified with the Small Business Certification Form for your company.

☐ This facility qualifies to receive assistance from the Small Business Environmental Assistance Program (SBEAP) but does not qualify for 50% of the normal application and permit fees. To see if you qualify for SBEAP assistance and for the small business certification form go to https://www.env.nm.gov/aqb/sbap/small_business_criteria.html).

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.70.300.B.2 NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

		AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.):	Updating Permit/NOI #: P211-R2
1	Facility Name: Afton Generating Station	Plant primary SIC Code (4 digits): 4911	
		Plant NAIC code (6 digits): 221112	
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): 10100 W. Afton Rd. #5, La Mesa, NM 88044		
2	Plant Operator Company Name: Public Service Co. of New Mexico	Phone/Fax: (505) 241-2003 / (505) 241-2384	
a	Plant Operator Address: 2401 Aztec Road NE, MS Z100 Albuquerque, NM, 87107		

Mail Application To:		**For Department use only:**
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		AIRS No.:

Universal Air Quality Permit Application

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Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. See Section 1-I for submittal instructions for other permits.

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Minor Source: ☐ a NOI 20.2.73 NMAC ☐ 20.2.72 NMAC application/revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) **X** Title V renewal ☐ TV minor mod. ☐ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

X I acknowledge that a pre-application meeting is available to me upon request. ☐ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.

☐ $500 NSR application Filing Fee enclosed OR ☐ The full permit fee associated with 10 fee points (required w/ streamline applications).

☐ Check No.: in the amount of

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Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.70.300.B.2 NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

		AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.):	Updating Permit/NOI #: P211-R2
1	Facility Name: Afton Generating Station	Plant primary SIC Code (4 digits): 4911	
		Plant NAIC code (6 digits): 221112	
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): 10100 W. Afton Rd. #5, La Mesa, NM 88044		
2	Plant Operator Company Name: Public Service Co. of New Mexico	Phone/Fax: (505) 241-2003 / (505) 241-2384	
a	Plant Operator Address: 2401 Aztec Road NE, MS Z100 Albuquerque, NM, 87107		

b	Plant Operator's New Mexico Corporate ID or Tax ID: Plant Operator's New Mexico Corporate ID or Tax ID: 85-0019030	
3	Plant Owner(s) name(s): Public Service Company of New Mexico	Phone/Fax: (505) 241-2016 / (505) 241-2384
a	Plant Owner(s) Mailing Address(s): 2401 Aztec Road, NE, MS Z100 87107	
4	Bill To (Company): Public Service Company of New Mexico	Phone/Fax: (505) 241-2016 / (505) 241-2384
a	Mailing Address: 2401 Aztec Road NE, MS Z100, Albuquerque NM 87107	E-mail: Robin.Delapp@pnmresources.com
5	☐ Preparer: **X** Consultant: Paul Wade, Montrose Air Quality Services, LLC	Phone/Fax: (505) 830-9680 x6
a	Mailing Address: 3500 G Comanche Road NE, Albuquerque, NM 87107	E-mail: pwade@montrose-env.com
6	Plant Operator Contact: Randy Pickering	Phone/Fax: (575) 233-5152
a	Address: 10100 W. Afton Rd. #5, La Mesa, NM 88044	E-mail: Randy.Pickering@pnm.com
7	Air Permit Contact: Robin DeLapp	Title: Technical Project Manager
a	E-mail: Robin.Delapp@pnmresources.com	Phone/Fax: (505) 241-2016 / (505) 241-2384
b	Mailing Address: 2401 Aztec Road NE, MS Z100 Albuquerque, NM, 87107	
c	The designated Air permit Contact will receive all official correspondence (i.e. letters, permits) from the Air Quality Bureau.	

Section 1-B: Current Facility Status

1.a	Has this facility already been constructed? **X** Yes ☐ No	1.b If yes to question 1.a, is it currently operating in New Mexico? **X** Yes ☐ No
2	If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? ☐ Yes **X** No	If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? **X** Yes ☐ No
3	Is the facility currently shut down? ☐ Yes **X** No	If yes, give month and year of shut down (MM/YY):
4	Was this facility constructed before 8/31/1972 and continuously operated since 1972? ☐ Yes **X** No	
5	If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? ☐Yes ☐No **X** N/A	
6	Does this facility have a Title V operating permit (20.2.70 NMAC)? **X** Yes ☐ No	If yes, the permit No. is: P-211-R2
7	Has this facility been issued a No Permit Required (NPR)? ☐ Yes **X** No	If yes, the NPR No. is:
8	Has this facility been issued a Notice of Intent (NOI)? ☐ Yes **X** No	If yes, the NOI No. is:
9	Does this facility have a construction permit (20.2.72/20.2.74 NMAC)? **X** Yes ☐ No	If yes, the permit No. is: PSD2466-M4R1
10	Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? ☐ Yes **X** No	If yes, the register No. is:

Section 1-C: Facility Input Capacity & Production Rate

1	What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: 1,500 x 10^6 BTU/hr (See Note 1)	Daily: 36,000 x 10^6 BTU (See Note 1)	Annually: 13.14 x 10^{12} BTU (See Note 1)
b	Proposed	Hourly: 1,500 x 10^6 BTU/hr (See Note 1)	Daily: 36,000 x 10^6 BTU (See Note 1)	Annually: 13.14 x 10^{12} BTU (See Note 1)
2	What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: 215 MW	Daily: 5160 MW-hr	Annually: 1.89 x10^6 MW-hr
b	Proposed	Hourly: 215 MW	Daily: 5160 MW-hr	Annually: 1.89 x10^6 MW-hr

Section 1-D: Facility Location Information

1	Section: 21	Range: 1E	Township: 25S	County: Dona Ana	Elevation (ft): 4,220
2	UTM Zone: ☐ 12 or **X** 13			Datum: ☐ NAD 27 **X** NAD 83 ☐ WGS 84	
a	UTM E (in meters, to nearest 10 meters): 325,830			UTM N (in meters, to nearest 10 meters): 3,554,630	
b	**AND** Latitude (deg., min., sec.): 32º 06' 52.55"			Longitude (deg., min., sec.): 106º 50' 45.96"	
3	Name and zip code of nearest New Mexico town: La Mesa 88044				
4	Detailed Driving Instructions from nearest NM town (attach a road map if necessary): Go 2 miles south of La Mesa on SR 28. Turn west onto Afton Road. Proceed west 10.2 miles. The AGS facility is on the north side of Afton Road, immediately east of the Afton (EPNG) Compressor Station.				
5	The facility is 12 miles west of La Mesa.				
6	Status of land at facility (check one): ☐ Private ☐ Indian/Pueblo **X** Federal BLM ☐ Federal Forest Service ☐ Other (specify)				
7	List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: Dona Ana County				
8	**20.2.72** NMAC applications **only**: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.nmenv.state.nm.us/aqb/modeling/class1areas.html)? **X** Yes ☐ No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers: Approx. 24.3 km from nearest point on state boundary of Texas				
9	Name nearest Class I area: Gila Wilderness Area				
10	Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): 150.00km				
11	Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: 1.5 miles to nearest residence				
12	Method(s) used to delineate the Restricted Area: Fence "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.				
13	Does the owner/operator intend to operate this source as a portable stationary source as defined in 20.2.72.7.X NMAC? ☐ Yes **X** No A portable stationary source is not a mobile source, such as an automobile, but a source that can be installed permanently at one location or that can be re-installed at various locations, such as a hot mix asphalt plant that is moved to different job sites.				
14	Will this facility operate in conjunction with other air regulated parties on the same property? ☒ No ☐ Yes If yes, what is the name and permit number (if known) of the other facility?				

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

1	Facility **maximum** operating ($\frac{\text{hours}}{\text{day}}$): 24	($\frac{\text{days}}{\text{week}}$): 7	($\frac{\text{weeks}}{\text{year}}$): 52	($\frac{\text{hours}}{\text{year}}$): 8760			
2	Facility's maximum daily operating schedule (if less than 24 $\frac{\text{hours}}{\text{day}}$)?	Start:	☐AM ☐PM	End:	☐AM ☐PM		
3	Month and year of anticipated start of construction: NA						
4	Month and year of anticipated construction completion: NA						
5	Month and year of anticipated startup of new or modified facility: NA						
6	Will this facility operate at this site for more than one year? **X** Yes ☐ No						

Section 1-F: Other Facility Information

1	Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? ☐ Yes **X** No If yes, specify:		
a	If yes, NOV date or description of issue:		NOV Tracking No:
b	Is this application in response to any issue listed in 1-F, 1 or 1a above? ☐ Yes ☐ No If Yes, provide the 1c & 1d info below:		
c	Document Title:	Date:	Requirement # (or page # and paragraph #):
d	Provide the required text to be inserted in this permit:		
2	Is air quality dispersion modeling or modeling waiver being submitted with this application? ☐ Yes **X** No		
3	Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? ☐ Yes **X** No		
4	Will this facility be a source of federal Hazardous Air Pollutants (HAP)? **X** Yes ☐ No		
a	If Yes, what type of source? ☐ **Major** (☐ ≥10 tpy of any single HAP **OR** ☐ ≥25 tpy of any combination of HAPS) **OR** **X Minor** (**X** <10 tpy of any single HAP **AND** **X** <25 tpy of any combination of HAPS)		
5	Is any unit exempt under 20.2.72.202.B.3 NMAC? ☐ Yes **X** No		
a	If yes, include the name of company providing commercial electric power to the facility: _____ Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user.		

Section 1-G: Streamline Application **(This section applies to 20.2.72.300 NMAC Streamline applications only)**

1	☐ I have filled out Section 18, "Addendum for Streamline Applications." **X** N/A (This is not a Streamline application.)

Section 1-H: Current Title V Information - Required for all applications from TV Sources

(Title V-source required information for all applications submitted pursuant to 20.2.72 NMAC (Minor Construction Permits), or 20.2.74/20.2.79 NMAC (Major PSD/NNSR applications), and/or 20.2.70 NMAC (Title V))

1	Responsible Official (R.O.) (20.2.70.300.D.2 NMAC): Randy Pickering		Phone: (575) 233-5152
a	R.O. Title: Director of Plant Management	R.O. e-mail: e-mail: Randy.Pickering@pnm.com	
b	R. O. Address: 10100 W. Afton Rd. #5, La Mesa, NM 88044		
2	Alternate Responsible Official (20.2.70.300.D.2 NMAC): Marcos Delgado		Phone: (505) 233-5156
a	A. R.O. Title: Craft Supervisor	A. R.O. e-mail: Marcos.Delgado@pnm.com	
b	A. R. O. Address: 10100 W. Afton Rd. #5, La Mesa, NM 88044		
3	Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): NA		
4	Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): PNM Resources, Inc.		
a	Address of Parent Company: 2401 Aztec Road, NE, MS Z100 87107		
5	Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): NA		
6	Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: Randy Pickering, (575) 233-5152, Randy.Pickering@pnm.com		

7	Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: **Texas – 15.1 miles**

NOTE 1: The listed heat input is based on LHV and is a "nominal" value. The actual heat input depends on both the fuel (natural gas or oil) and the ambient temperature. The details of heat input and ambient temperature is given in attachment A-P211-7-Afton7FA. Note that HHV is approximately 1.1 times the LHV. The maximum potential heat input is greater for fuel oil firing than for natural gas firing. While Afton is permitted to use fuel oil, typical operation is natural gas firing only. Where appropriate, short-term emission rates have been calculated assuming a heat input value corresponding to an ambient air temperature of 0 F and long-term (annual) emissions calculated assuming an annual average temperature of 60 F.

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (**NOI**), a 20.2.70 NMAC (**Title V**), a 20.2.72 NMAC (**NSR** minor source), or 20.2.74 NMAC (**PSD**) application package shall consist of the following:

Hard Copy Submittal Requirements:

1) One hard copy **original signed and notarized application package** **printed double sided** **'head-to-toe'** **2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be head-to-head. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required. Please include a copy of the check on a separate page.

2) If the application is for a minor NSR, PSD, NNSR, or Title V application, include one working hard **copy** for Department use. This copy should be printed in book form, 3-hole punched, and **must be double sided**. Note that this is in addition to the head-to-to 2-hole punched copy required in 1) above. Minor NSR Technical Permit revisions (20.2.72.219.B NMAC) only need to fill out Sections 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical permit revision. TV Minor Modifications need only fill out Sections 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.

3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically. Electronic files for applications for NOIs, any type of General Construction Permit (GCP), or technical revisions to NSRs must be submitted with compact disk (CD) or digital versatile disc (DVD). For these permit application submittals, **two** CD copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a single CD submittal. Electronic files for other New Source Review (construction) permits/permit modifications or Title V permits/permit modifications can be submitted on CD/DVD or sent through AQB's secure file transfer service.

Electronic files sent by (check one):

☐ CD/DVD attached to paper application

☐ secure electronic transfer. Air Permit Contact Name_____

Email_____

Phone number _____

a. If the file transfer service is chosen by the applicant, after receipt of the application, the Bureau will email the applicant with instructions for submitting the electronic files through a secure file transfer service. Submission of the electronic files through the file transfer service needs to be completed within 3 business days after the invitation is received, so the applicant should ensure that the files are ready when sending the hard copy of the application. The applicant will not need a password to complete the transfer. **Do not use the file transfer service for NOIs, any type of GCP, or technical revisions to NSR permits.**

4) Optionally, the applicant may submit the files with the application on compact disk (CD) or digital versatile disc (DVD) following the instructions above and the instructions in 5 for applications subject to PSD review.

5) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver** and/or electronic air dispersion modeling report, input, and output files. The dispersion modeling ***summary report only*** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau.

6) If the applicant submits the electronic files on CD and the application is subject to PSD review under 20.2.74 NMAC (PSD) or NNSR under 20.2.79 NMC include,
   a. one additional CD copy for US EPA,
   b. one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
   c. one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

   If the application is submitted electronically through the secure file transfer service, these extra CDs do not need to be submitted.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

1) All required electronic documents shall be submitted as 2 separate CDs or submitted through the AQB secure file transfer service. Submit a single PDF document of the entire application as submitted and the individual documents comprising the application.

2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text and formulas in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible

format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc,), submit these items in hard copy format. We must be able to review the formulas and inputs that calculated the emissions.

3) It is preferred that this application form be submitted as 4 electronic files (3 MSWord docs: Universal Application section 1 [UA1], Universal Application section 3-19 [UA3], and Universal Application 4, the modeling report [UA4]) and 1 Excel file of the tables (Universal Application section 2 [UA2]). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.

4) The electronic file names shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: "A-3423-FacilityName". The "A" distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with "A-". Modifications to existing facilities should use the core permit number (i.e. '3423') the Department assigned to the facility as the next 4 digits. Use 'XXXX' for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: "A-3423-9-description", where "9" stands for the section # (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the header information throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision number (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. Do not use special symbols (#, @, etc.) in file names. The footer information should not be modified by the applicant.

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Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number[1]	Source Description	Make	Model #	Serial #	Manufacturer's Rated Capacity[3] (Specify Units)	Requested Permitted Capacity[3] (Specify Units)	Date of Manufacture[2] / Date of Construction/ Reconstruction[2]	Controlled by Unit # / Emissions vented to Stack #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB)[4]	Replacing Unit No.
1	Combustion Turbine	General Electric	7FA	298032	164 MW (max), 1,699.6 mmBtu/hr	164 MW (max), 1,699.6 mmBtu/hr	01/22/02	3 / 1	20100201	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
2	2 Cell Forced Draft Cooling Tower	GEA	NA	423627-21-24-FCF	18,781 gpm	18,781 gpm	10/12/07	NA / 2	38500101	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
3	Combined Cycle Heat Recovery (HRSG) with SCR	Cormtech, Inc.	NA	102178	68 MW	68 MW	10/12/07	3 / 1	20100201	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
4	Dew Point Heater	Thermoflux/ Webster Eng.	NA	9114/64611A-01-001-02	5.1 MMBtu/hr	5.1 MMBtu/hr	01/22/02	NA / 4	20100201	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
7	Duct Burner	Coen Co. Inc, Forney	NA	407265-01	60 MW, 505 MMBtu/hr	60 MW, 505 MMBtu/hr	10/12/07	3 / 1	20100201	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
8	Fire Pump Engine	Clarke/John Deer	JDFP-06WA	RG6081A1 47837	265 hp	265 hp		NA / 5	20100102	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	CI	
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		

[1] Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.

[2] Specify dates required to determine regulatory applicability.

[3] To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.

[4] "4SLB" means four stroke lean burn engine, "4SRB" means four stroke rich burn engine, "2SLB" means two stroke lean burn engine, "CI" means compression ignition, and "SI" means spark ignition

Table 2-B: Insignificant Activities[1] (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

All 20.2.70 NMAC (Title V) applications must list all Insignificant Activities in this table. All 20.2.72 NMAC applications must list Exempted Equipment in this table. If equipment listed on this table is exempt under 20.2.72.202.B.5, include emissions calculations and emissions totals for 202.B.5 "similar functions" units, operations, and activities in Section 6, Calculations. Equipment and activities exempted under 20.2.72.202 NMAC may not necessarily be Insignificant under 20.2.70 NMAC (and vice versa). Unit & stack numbering must be consistent throughout the application package. Per Exemptions Policy 02-012.00 (see http://www.env.nm.gov/aqb/permit/aqb_pol.html), 20.2.72.202.B NMAC Exemptions do not apply, but 20.2.72.202.A NMAC exemptions do apply to NOI facilities under 20.2.73 NMAC. List 20.2.72.301.D.4 NMAC Auxiliary Equipment for Streamline applications in Table 2-A. The List of Insignificant Activities (for TV) can be found online at http://www.env.nm.gov/aqb/forms/InsignificantListTitleV.pdf . TV sources may elect to enter both TV Insignificant Activities and Part 72 Exemptions on this form.

Unit Number	Source Description	Manufacturer	Model No. / Serial No.	Max Capacity / Capacity Units	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5) / Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Manufacture /Reconstruction[2] / Date of Installation /Construction[2]	For Each Piece of Equipment, Check Onc
T-1	Water Tank (Converted from fuel oil tank)	NA	NA	1000000 gal.	20.2.72.202.B.2.a NMAC	Nov-02	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
			NA			Nov-02	
T-2	Aqueous Ammonia Tank	NA	NA	20000 gal.	20.2.72.202.B.5 NMAC	Nov-02	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
			NA			Nov-02	
T-3	Sulfuric Acid Tank	NA	NA	7000 gal.	20.2.72.202.B.5 NMAC	Nov-02	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
			NA			Nov-02	
T-4	Bleach Tank	NA	NA	7000 gal.	20.2.72.202.B.5 NMAC	Nov-02	X Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
			NA			Nov-02	
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced

[1] Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

[2] Specify date(s) required to determine regulatory applicability.

Table 2-C: Emissions Control Equipment

Unit and stack numbering must correspond throughout the application package. Only list control equipment for TAPs if the TAP's maximum uncontrolled emissions rate is over its respective threshold as listed in 20.2.72 NMAC, Subpart V, Tables A and B. In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions.

Control Equipment Unit No.	Control Equipment Description	Date Installed	Controlled Pollutant(s)	Controlling Emissions for Unit Number(s)[1]	Efficiency (% Control by Weight)	Method used to Estimate Efficiency
3	Selective Catalytic Reduction Unit	10/12/2007	NOx	1,7	NA	3.5ppm perBACT

[1] List each control device on a separate line. For each control device, list all emission units controlled by the control device.

Table 2-D: Maximum Emissions (under normal operating conditions)

☐ **This Table was intentionally left blank because it would be identical to Table 2-E.**

Maximum Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) & Toxic Air Pollutants (TAPs) in Table 2-I. Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
1 (SC)-1	55.0	231.0	28.0	114.0	13.0	57.0	2.8	12.0	10.0	40.0	10.0	40.0	10.0	40.0	-	-	0.001	0.004
1,3 (CC)-2	106.0	279.0	28.0	114.0	13.0	57.0	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	-	-	0.001	0.004
1,3,7 (CC)-3	106.0	279.0	79.0	164.0	33.2	76.4	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	-	-	0.001	0.004
2 (CC)-2,3	-	-	-	-	-	-	-	-	0.21	0.93	0.07	0.3	0.00042	0.002	-	-	-	-
4	0.3	1.1	0.2	1	0.1	0.4	0.009	0.04	0.04	0.2	0.04	0.2	0.04	0.2	-	-	-	-
1(SC)-4	300	30	63	6	14	1.3	93	9	17	2	17	2	17	2	-	-	0.02	0.002
8 (Fire pump)	3.91	0.98	0.17	0.042	0.13	0.034	0.029	0.007	0.041	0.010	0.041	0.010	0.041	0.010	-	-	-	-
Totals (SC)-1		233.1		115		57.4		13.0		40.2		40.2		40.2		-		0.004
Totals (CC)-2		281.1		115		57.4		13.0		49.1		48.5		48.2		-		0.004
Totals (CC)-3		281.1		165		76.8		13.0		49.1		48.5		48.2		-		0.004
Totals (SC)-4		32.1		7.0		1.7		9.0		2.2		2.2		2.2		-		0.002

[1]**Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but PM is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-E: Requested Allowable Emissions

Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or $1.41E^{-4}$).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
1 (SC)-1	55.0	231.0	28.0	114.0	13.0	57.0	2.8	12.0	10.0	40.0	10.0	40.0	10.0	40.0	-	-	0.001	0.004
1,3 (CC)-2	22.0	92.0	28.0	114.0	13.0	57.0	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	-	-	0.001	0.004
1,3,7 (CC)-3	22.3	92.3	79.0	164.0	33.2	76.4	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	-	-	0.001	0.004
2 (CC)-2,3	-	-	-	-	-	-	-	-	0.21	0.93	0.07	0.31	0.00042	0.002	-	-	-	-
4 (Heater)	0.3	1.1	0.2	1.0	0.1	0.4	0.009	0.04	0.04	0.2	0.04	0.2	0.04	0.2	-	-	-	-
1 (SC)-4	300.0	30.0	63.0	6.0	14.0	1.3	93.0	9.0	17.0	2.0	17.0	2.0	17.0	2.0	-	-	0.02	0.002
8 (Fire Pump)	3.91	0.98	0.17	0.042	0.13	0.034	0.029	0.007	0.041	0.010	0.041	0.010	0.041	0.010	-	-	-	-
Notes: There are 4 different turbine operation scenarios. 1 is simple cycle (SC) gas-fired scenrio, 2 is the combined (CC) gas-fired without duct burner scenario, 3 is the (CC) scenario with duct burner, and 4 is (SC) scenario oil-fired. For example, 1,3 (CC)-2 means Units 1 and 3 operating in combined cycle, scenario 2.																		
Totals (SC)-1		233.1		115.0		57.4		12.0		40.2		40.2		40.2		-		0.004
Totals (CC)-2		94.1		115.0		57.4		13.0		49.1		48.5		48.2		-		0.004
Totals (CC)-3		94.1		165.0		76.8		13.0		49.1		48.5		48.2		-		0.004
Totals (SC)-4		32.1		7.0		1.7		9.0		2.2		2.2		2.2		-		0.002

[1] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-F: Additional Emissions during Startup, Shutdown, and Routine Maintenance (SSM)

☐ This table is intentionally left blank since all emissions at this facility due to routine or predictable startup, shutdown, or scehduled maintenance are no higher than those listed in Table 2-E and a malfunction emission limit is not already permitted or requested. If you are required to report GHG emissions as described in Section 6a, include any GHG emissions during Startup, Shutdown, and/or Scheduled Maintenance (SSM) in Table 2-P. Provide an explanations of SSM emissions in Section 6 and 6a.

All applications for facilities that have emissions during routine our predictable startup, shutdown or scheduled maintenance (SSM)[1], including NOI applications, must include in this table the Maximum Emissions during routine or predictable startup, shutdown and scheduled maintenance (20.2.7 NMAC, 20.2.72.203.A.3 NMAC, 20.2.73.200.D.2 NMAC). In Section 6 and 6a, provide emissions calculations for all SSM emissions reported in this table. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (https://www.env.nm.gov/aqb/permit/aqb_pol.html) for more detailed instructions. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[2]		PM10[2]		PM2.5[2]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
1 (SC) (Note 1)	50.3	0	616	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
1,7 (CC) (Note 1)	71.7	0	616	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
Totals																		

[1] **For instance**, if the short term steady-state Table 2-E emissions are 5 lb/hr and the SSM rate is 12 lb/hr, enter 7 lb/hr in this table. If the annual steady-state Table 2-E emissions are 21.9 TPY, and the number of scheduled SSM events result in annual emissions of 31.9 TPY, enter 10.0 TPY in the table below.

[2] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Note 1: Additional SSM emissions rates to non-SSM Emission rates. Total Maximum Emissions would be 55.0 pph + 50.3 pph = 105.3 pph NOx during simple cycle, 22.3 pph + 71.7 pph = 94.0 pph NOx during combined cycle, and 28.0 pph + 616.0 pph = 644.0 pph CO.

Table 2-G: Stack Exit and Fugitive Emission Rates for Special Stacks

☐ I have elected to leave this table blank because this facility does not have any stacks/vents that split emissions from a single source or combine emissions from more than one source listed in table 2-A. Additionally, the emission rates of all stacks match the Requested allowable emission rates stated in Table 2-E.

Use this table to list stack emissions (requested allowable) from split and combined stacks. List Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) in Table 2-I. List all fugitives that are associated with the normal, routine, and non-emergency operation of the facility. Unit and stack numbering must correspond throughout the application package. Refer to Table 2-E for instructions on use of the "-" symbol and on significant figures.

Stack No.	Serving Unit Number(s) from Table 2-A	NOx		CO		VOC		SOx		PM		PM10		PM2.5		☐ H_2S or X Lead	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
1B	1,3,7	22.3	92.3	79.0	163.0	33.2	76.4	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	0.001	0.004
Totals:		22.3	92.3	79.0	163.0	33.2	76.4	3.7	13.0	18.0	48.0	18.0	48.0	18.0	48.0	0.001	0.004

Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions. If the facility has multiple operating scenarios, complete a separate Table 2-H for each scenario and, for each, type scenario name here:

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
1A	1	V	No	120	1118	40713	10069	7.7	179	17.00
1B	1,3,7	V	No	150	182	16553	10069	7.7	62	18.50
2	2 (2 cells)	V	No	60	50	14417 /cell	NA	NA	20.4	30 (each)
4	4	V	No	11	1000	46	12	NA	56.6	1.02
5	8 (Fire Pump Engine)	H	No	13	840	23	9	NA	171.6	0.42

Table 2-I: Stack Exit and Fugitive Emission Rates for HAPs and TAPs

In the table below, report the Potential to Emit for each HAP from each regulated emission unit listed in Table 2-A, only if the entire facility emits the HAP at a rate greater than or equal to one (1) ton per year For each such emission unit, HAPs shall be reported to the nearest 0.1 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources calculated to the nearest 0.1 ton per year. Per 20.2.72.403.A.1 NMAC, facilities not exempt [see 20.2.72.402.C NMAC] from TAP permitting shall report each TAP that has an uncontrolled emission rate in excess of its pounds per hour screening level specified in 20.2.72.502 NMAC. TAPs shall be reported using one more significant figure than the number of significant figures shown in the pound per hour threshold corresponding to the substance. Use the HAP nomenclature as it appears in Section 112 (b) of the 1990 CAAA and the TAP nomenclature as it listed in 20.2.72.502 NMAC. Include tank-flashing emissions estimates of HAPs in this table. For each HAP or TAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above.

Stack No.	Unit No.(s)	Total HAPs		Formaldehyde X HAP or □ TAP		Ammonia □ HAP or X TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
1A (SC)1	1	1.1	4.6	1.1	4.6	-	-												
1B(CC)2	1,3	1.1	4.6	1.1	4.6	21	82												
1B(CC)3	1,3,7	1.1	4.6	1.1	4.6	21	82												
1A(SC)4	1	0.04	0.04	0.04	0.04	-	-												
Note: Only HAP/TAP that have permit limits are listed on this table. Calculation results for all identified HAP/TAP are give in Section 6, Emission Calculations.																			
Totals:																			

Table 2-J: Fuel

Specify fuel characteristics and usage. Unit and stack numbering must correspond throughout the application package.

Unit No.	Fuel Type (low sulfur Diesel, ultra low sulfur diesel, Natural Gas, Coal, …)	Fuel Source: purchased commercial, pipeline quality natural gas, residue gas, raw/field natural gas, process gas (e.g. SRU tail gas) or other	Specify Units				
			Lower Heating Value	Hourly Usage	Annual Usage	% Sulfur	% Ash
1	Natural Gas	Pipeline Quality Natural Gas	921 Btu/scf	$1.5x10^6$ scf	$12,000x10^{6\ scf}$	0.6grains/100scf	0.0%*
1	Diesel Fuel	Purchased Commercial	134,000 Btu/gal	11,500 gal. max	2,500,000 gal (at est. 200 hrs)	<0.05%	0.0%*
4	Natural Gas	Pipeline Quality Natural Gas	921 Btu/scf	4985 scf	$43.7x10^6$ scf	0.6grains/100scf	0.0%*
7	Natural Gas	Pipeline Quality Natural Gas	921 Btu/scf	$4.94x10^5$ scf	$948.5x10^6$	0.6grains/100scf	0.0%*
8	Diesel Fuel	Purchased Commercial	134,000 Btu/gal	16 gal.	8,000 gal.	<0.05%	0.0%*
	* Ash values rounded to nearest tenth of a percent						

Table 2-K: Liquid Data for Tanks Listed in Table 2-L

For each tank, list the liquid(s) to be stored in each tank. If it is expected that a tank may store a variety of hydrocarbon liquids, enter "mixed hydrocarbons" in the Composition column for that tank and enter the corresponding data of the most volatile liquid to be stored in the tank. If tank is to be used for storage of different materials, list all the materials in the "All Calculations" attachment, run the newest version of TANKS on each, and use the material with the highest emission rate to determine maximum uncontrolled and requested allowable emissions rate. The permit will specify the most volatile category of liquids that may be stored in each tank. Include appropriate tank-flashing modeling input data. Use additional sheets if necessary. Unit and stack numbering must correspond throughout the application package.

Tank No.	SCC Code	Material Name	Composition	Liquid Density (lb/gal)	Vapor Molecular Weight (lb/lb*mol)	Average Storage Conditions		Max Storage Conditions	
						Temperature (°F)	True Vapor Pressure (psia)	Temperature (°F)	True Vapor Pressure (psia)
2		Aqueous Ammonia	19.5% NH3 in water	7.75	17	NA	NA	NA	NA
3		Sulfuric Acid	93% H2SO4 in water	15.18	NA	NA	NA	NA	NA
4		Bleach	14% NaOCl in water	9.76	70.9 (as Cl2)	NA	NA	NA	NA

Table 2-L: Tank Data

Include appropriate tank-flashing modeling input data. Use an addendum to this table for unlisted data categories. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.
See reference Table 2-L2. Note: 1.00 bbl = 10.159 M3 = 42.0 gal

Tank No.	Date Installed	Materials Stored	Seal Type (refer to Table 2-LR below)	Roof Type (refer to Table 2-LR below)	Capacity		Diameter (M)	Vapor Space (M)	Color (from Table VI-C)		Paint Condition (from Table VI-C)	Annual Throughput (gal/yr)	Turn-overs (per year)
					(bbl)	(M^3)			Roof	Shell			
2	11/02	Aqueous Ammonia	NA	FX	476	76	2.74	0	OT	OT	Good	335,500	16.70
3	11/02	Sulfuric Acid	NA	FX	167	27	2.74	0.1	OT	OT	Good	8,000	1.20
4	11/02	Bleach	NA	FX	167	27	3.66	0	OT	OT	Good	4,000	0.60

Table 2-L2: Liquid Storage Tank Data Codes Reference Table

Roof Type	Seal Type, Welded Tank Seal Type		Seal Type, Riveted Tank Seal Type		Roof, Shell Color	Paint Condition
FX: Fixed Roof	**Mechanical Shoe Seal**	**Liquid-mounted resilient seal**	**Vapor-mounted resilient seal**	**Seal Type**	**WH**: White	Good
IF: Internal Floating Roof	**A**: Primary only	**A**: Primary only	**A**: Primary only	**A**: Mechanical shoe, primary only	**AS**: Aluminum (specular)	Poor
EF: External Floating Roof	**B**: Shoe-mounted secondary	**B**: Weather shield	**B**: Weather shield	**B**: Shoe-mounted secondary	**AD**: Aluminum (diffuse)	
P: Pressure	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**LG**: Light Gray	
					MG: Medium Gray	
					BL: Black	
					OT: Other (specify)	

Note: 1.00 bbl = 0.159 M^3 = 42.0 gal

Table 2-M: Materials Processed and Produced (Use additional sheets as necessary.)

Material Processed				Material Produced			
Description	**Chemical Composition**	**Phase (Gas, Liquid, or Solid)**	**Quantity (specify units)**	**Description**	**Chemical Composition**	**Phase**	**Quantity (specify units)**
N/A							

Table 2-N: CEM Equipment

Enter Continuous Emissions Measurement (CEM) Data in this table. If CEM data will be used as part of a federally enforceable permit condition, or used to satisfy the requirements of a state or federal regulation, include a copy of the CEM's manufacturer specification sheet in the Information Used to Determine Emissions attachment. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Stack No.	Pollutant(s)	Manufacturer	Model No.	Serial No.	Sample Frequency	Averaging Time	Range	Sensitivity	Accuracy
Unit 1	NOx	Horiba	GL-725 CL	SOG4KAJD	10 secs	1 hr	Low	10 ppm	
Unit 1	NOx	Horiba	GL-725 CL	SOG4KAJD	10 secs	1 hr	High	100 ppm	
Unit 1	CO	Horiba	CMA-ED642L2	41707080047	10 secs	1 hr	Single	25 ppm	
Unit 1	CO	Horiba	VIA-510	MNV9EUC2	10 secs	1 hr	Single	1000 ppm	
Unit 1	O2	Horiba	GL-725 CL	SOG4KAJD	10 secs	1 hr	Single	25%	
Unit 1	Fuel	Rosemount	3095 MA2CA	228547	10 secs	1 hr	Single	0 - 100%	
Unit 7	Fuel	Rosemount	3051 SMV	478788	10 secs	1 hr	Single	0 - 100%	

Table 2-O: Parametric Emissions Measurement Equipment

Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Unit No.	Parameter/Pollutant Measured	Location of Measurement	Unit of Measure	Acceptable Range	Frequency of Maintenance	Nature of Maintenance	Method of Recording	Averaging Time
N/A								

Table 2-P: Greenhouse Gas Emissions

Applications submitted under 20.2.70, 20.2.72, & 20.2.74 NMAC are required to complete this Table. Power plants, Title V major sources, and PSD major sources must report and calculate all GHG emissions for each unit. Applicants must report potential emission rates in short tons per year (see Section 6.a for assistance). Include GHG emissions during Startup, Shutdown, and Scheduled Maintenance in this table. For minor source facilities that are not power plants, are not Title V, or are not PSD, there are three options for reporting GHGs 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHG as a second separate unit; OR 3) check the following box ☐ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

		CO_2 ton/yr	N_2O ton/yr	CH_4 ton/yr	SF_6 ton/yr	PFC/HFC ton/yr[2]									Total GHG Mass Basis ton/yr[4]	Total CO_2e ton/yr[5]
Unit No.	**GWPs [1]**	**1**	**298**	**25**	**22,800**	**footnote 3**										
1 and 7	**mass GHG**	789105	1.49	14.88											789121	
	CO_2e	789105	444	101												789650
4	**mass GHG**	2611	0.0049	0.049											2611	
	CO_2e	2611	1.47	1.23												2614
8	**mass GHG**	90	0.0000009	0.0036											90	
	CO_2e	90	0.00026	0.088												90
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
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	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO2e															
Total	**mass GHG**	791806	1.49	14.47											791822	
	CO_2e	791806	445.5	102.3												792354

[1] **GWP** (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP values.

[2] For **HFCs** or **PFCs** describe the specific HFC or PFC compound and use a separate column for each individual compound.

[3] For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

[4] Green house gas emissions on a **mass basis** is the ton per year green house gas emission before adjustment with its GWP.

[5] **CO_2e** means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will affect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

The **Process Summary** shall include a brief description of the facility and its processes.

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions: Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

This application is for renewal of the Afton Generating Station (AGS) Title V Operating Permit. AGS operates under Title V permit number P211R2 issued July 1, 2016 and 20.2.72NMAC Construction Permit PSD2466-M4R1 issued January 9, 2019. The permit expiration date is based on the initial permit and, therefore, this permit expires July 1, 2021. Per the requirements of 20.2.70.300.B.2 NMAC AGS is required submit a permit renewal application at least 12 months prior to the expiration of the current Title V permit. AGS is hereby applying to renew its Title V Operating Permit. Also included is the renewal application for the AGS acid rain permit.

The AGS facility includes the following air emission sources:

- 1 combustion turbine generator fired by either clean burning natural gas or diesel
- 1 heat recovery steam generator (HRSG) with SCR
- 1 supplemental firing duct burner
- 1 dew point heater
- 1 induced draft cooling tower with 2 cooling cells
- 1 fire pump engine

AGS is a single unit, natural gas fired combustion turbine used to generate commercial electrical power. The facility may operate in either a simple cycle or combined cycle mode. During combined cycle operation the facility may also operate a duct burner for additional generation capacity. In addition to natural gas firing, AGS is also permitted to use a limited amount (200 hours per year of operation) of fuel oil during emergency conditions and for testing. Afton has four different operating scenarios. Scenario 1 is natural gas fired simple cycle (SC) operation; Scenario 2 is combined cycle (CC) operation without the duct burner in operation; Scenario 3 is CC operation with the duct burner; Scenario 4 is SC operation with fuel oil as the fuel source. The current permits (NSR and Title V) have separate emission limits identified for each of these scenarios. There are several other operational considerations important to understanding AGS permitting:

- Turbine emissions exhaust through a different stack depending on whether it is operating in SC or CC mode. These stacks have been designated as 1A for SC and 1B for CC.

- Cooling tower operation is needed only when the HRSG (heat recovery steam generator) is operating (i.e. the facility is in CC mode). Therefore, cooling tower emissions add to total facility emissions during CC operation but not SC operation.

- The duct burner operates only during CC mode. Duct burner operation is limited to a maximum of 1,920 hours per year.

- There is an SCR unit for reduction of NOx emissions, but the SCR unit can operate only during CC mode because exhaust temperature is too high for the SCR during SC mode.

- AGS would operate only in SC mode in the event of fuel oil firing.

For this Title V permit application, within the last 4 years PNM submitted and was issued a 20.2.72NMAC Construction Permit PSD2466-M4R1 signed January 9, 2019 for the changes described below, which PNM will like incorporated into the Title V renewal permit:

Proposed 40 CFR 60 Subpart Da Alternative Monitoring Procedure and Exemptions

With this technical revision per 20.2.72.219.B(1)(a) NMAC, PNM is proposing alternative monitoring procedures for the facility's natural gas-fired duct burner (Unit 7) operating at AGS.

Presently the monitoring and recordkeeping requirement for the facility duct burner, Unit 7, issued in Permit PSD-NM-2466-M4 is as follows:

A601 <u>Heaters</u>

A. 40 CFR 60, Subparts A and Da (Unit 7)

Requirement: The 505 MMBtu/hr duct burner (Unit 7) is subject to 40 CFR 60, Subpart A - General Provisions, and Subpart Da Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced after 9/18/78 and shall comply with both the notification requirements in Subpart A and with the specific requirements of Subpart Da. When operating in Scenario 3, the duct burner (Unit 7: Stack 1B) shall comply with the emissions standards required by 40 CFR 60 Subpart Da Sections 60.42Da(c) or (d) Standard for particulate matter, 60.43Da(i) Standard for sulfur dioxide and 60.44 Da (e) Standard for nitrogen oxides. (NSR PSD2466-M4 Condition A401.A, revised)
Monitoring: The permittee shall meet the applicable testing requirements of 40 CFR 60, Subpart A and Da.
Recordkeeping: The permittee shall comply with the applicable record keeping requirements of 40 CFR 60 Subparts A and Da.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60 Subparts A and Da.

The following is the proposed language for monitoring and recordkeeping requirement for duct burner Unit 7 per the "Alternative Monitoring Procedure" found in the proposed Attachment A language below:

A601 <u>Heaters</u>

A. 40 CFR 60, Subparts A and Da (Unit 7)

Requirement: The 505 MMBtu/hr duct burner (Unit 7) is subject to 40 CFR 60, Subpart A - General Provisions, and Subpart Da Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced after 9/18/78 and shall comply with both the notification requirements in Subpart A and with the specific requirements of Subpart Da. When operating in Scenario 3, the duct burner (Unit 7: Stack 1B) shall comply with the emissions standards required by 40 CFR 60 Subpart Da Sections 60.42Da (a) or (d) Standard for particulate matter, 60.43Da(i) Standard for sulfur dioxide and 60.44 Da (e) Standard for nitrogen oxides. (NSR PSD2466-M4 Condition A401.A, revised)

Monitoring: (1) The permittee shall meet the applicable testing and monitoring requirements of 40 CFR 60, Subpart A and Da. (2) The permittee shall monitor in accordance with Subpart Da as modified by the Alternative Monitoring Procedure required by 40 CFR 60.49Da (4)(i). See Attachment A for details. (3) The permittee is exempt from the Subpart Da periodic opacity monitoring requirement since the duct burner installed in the combined cycle gas turbine system only fires natural gas. This exemption does not in any way affect the applicability of 20.2.61 NMAC, Condition A111.A. See Attachment A for details. (4) The permittee is exempt from performing Part 60 cylinder gas audits on the low range NOx analyzer which has a span value of 10 ppm. See Attachment A for details. (5) The permittee shall conduct monitoring in accordance with Section B111.
Recordkeeping: The permittee shall comply with the applicable record keeping requirements of 40 CFR 60 Subparts A and Da. The permittee shall maintain records in accordance Section B109.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60 Subparts A and Da. The permittee shall report in accordance with Section B110.

Attachment A: Alternative Monitoring Procedure:

The compliance provisions of 40 CFR 60.48Da(j) require compliance demonstrations for duct burners used in combined cycle systems to be based either on periodic performance tests or continuous emission monitoring systems (CEMS) data. PNM elects to use its NO_x CEMS data to make such compliance demonstrations. However, the demonstrations using CEMS data are based on the average emission rate for 30 successive *boiler operating days.* For units constructed before February 28, 2005 a "boiler operating day" is defined as "a 24-hour period during which fossil fuel is combusted in a steam-generating unit *for the entire 24 hours".* However, the Facility, which was constructed before February 28, 2005, only operates its duct burner as needed during periods of peak demand and never operates the duct burner continuously for 24 hours at a time. Therefore, the following are the alternative monitoring procedures to demonstrate compliance with the 40 CFR 60, Subpart Da NO_x emission limit of 0.2 lbs/MMBtu determined on a 30-day rolling average:

1. Permittee will demonstrate compliance by calculating a 30-day rolling average based on the arithmetic average of all hourly NOx emission rates (in lbs/MMBtu) during duct burner operations for the 30 successive days during which any fuel is combusted at any time in the duct burner.
2. The 30-day rolling average will be calculated from data generated by the NO_x CEMS, without any substitute data values or bias adjustments that would otherwise be required under Part 75.
3. The 30-day rolling average will be calculated based on a minimum of 90 percent of all duct burner operating hours for each 30 successive day period of duct burner operations.
4. Permittee will submit such data, along with the reporting requirements in 40 CFR 60.51 Da, on a semi-annual basis as part of the semi-annual report.

Opacity Exemption:

In 40 CFR Subpart 60.42(b)(2), the regulation states: “An owner or operator of an affected facility that combusts only natural gas and/or synthetic natural gas that chemically meets the definition of natural gas is exempt from the opacity standard specified in paragraph (b) of this section”. Since the duct burner only operates on natural gas, per 40 CFR Subpart 60.42(b)(2), the duct burner is exempted from opacity requirements found in 40 CFR Subpart 60.42(b). This exemption does not in any way affect the applicability of 20.2.61 NMAC.

Low Range NO_x Analyzer Cylinder Gas Audit Exemption:

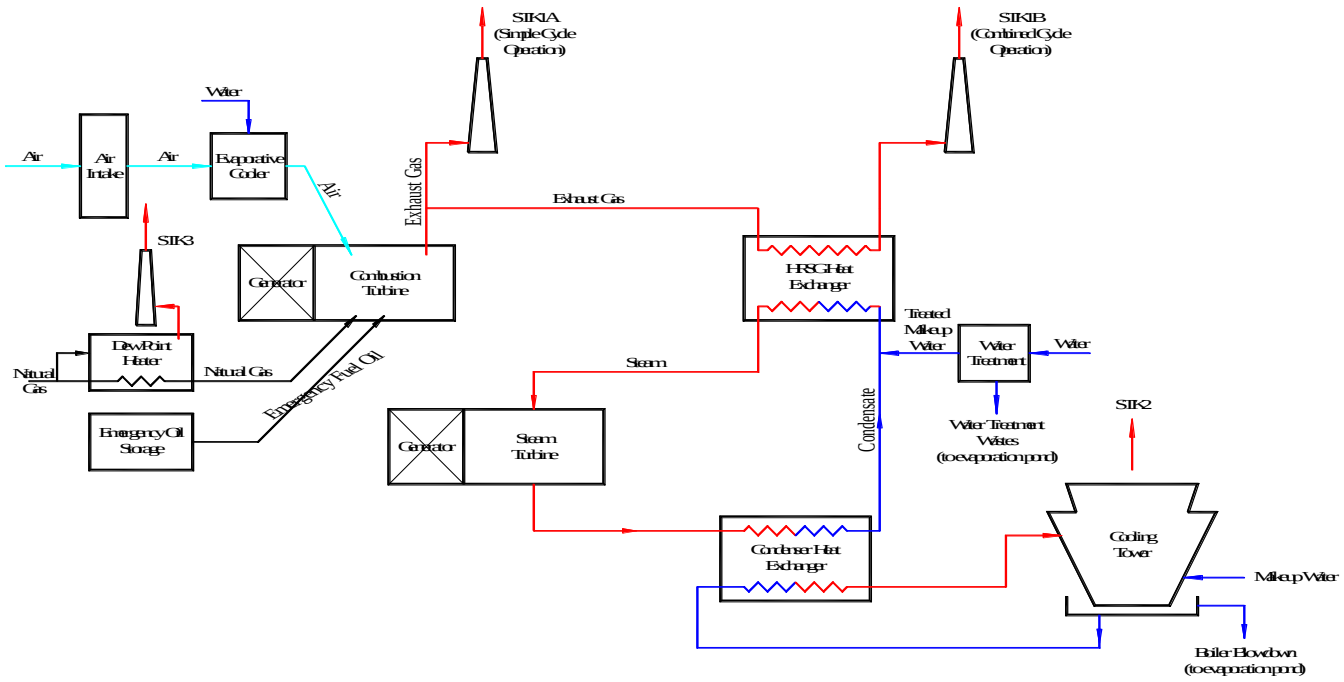
40 CFR.60.49Da(w)(3) requires the owner or operator using a NO_x CEMS to meet the requirements of Subpart Da to perform cylinder gas audits (CGA) for NO_x span values less than or equal to 30 ppm. The facility operates a dual range NO_x CEMS and the low range NO_x analyzer only has a span value of 10 ppm. The criterion for excessive CGA inaccuracy provided in Section 5.2.3 of 40 CFR 60 Appendix F is ±15 percent of the average audit value or ±5 ppm, whichever is *greater.* Thus, with a span of 10 ppm, the analyzer inaccuracy allowed based on 5 ppm could be as high as 250% of the audit value [(5 ppm)/2 *100 ~ 250%]. EPA appears to have recognized that performing a gas audit below 30 ppm would provide no meaningful measurement of accuracy because Part 75 Appendix A, Section 6.2, states: "if the SO_x or NO_x span value for a particular monitor range is less than 30 ppm, that range is exempted from the linearity check requirements of this part, for initial certification, recertification, and for on-going quality-assurance”. A CEMS meeting the requirements of 40 CFR 75 will be presumed to

meet the requirements of 40 CFR 60; therefore, the CEMS will be designed, installed, certified, and quality assured in accordance with 40 CFR 75 and will be exempt from the low range NO_x analyzer CGA as required by 40 CFR 60.

Section 4

Process Flow Sheet

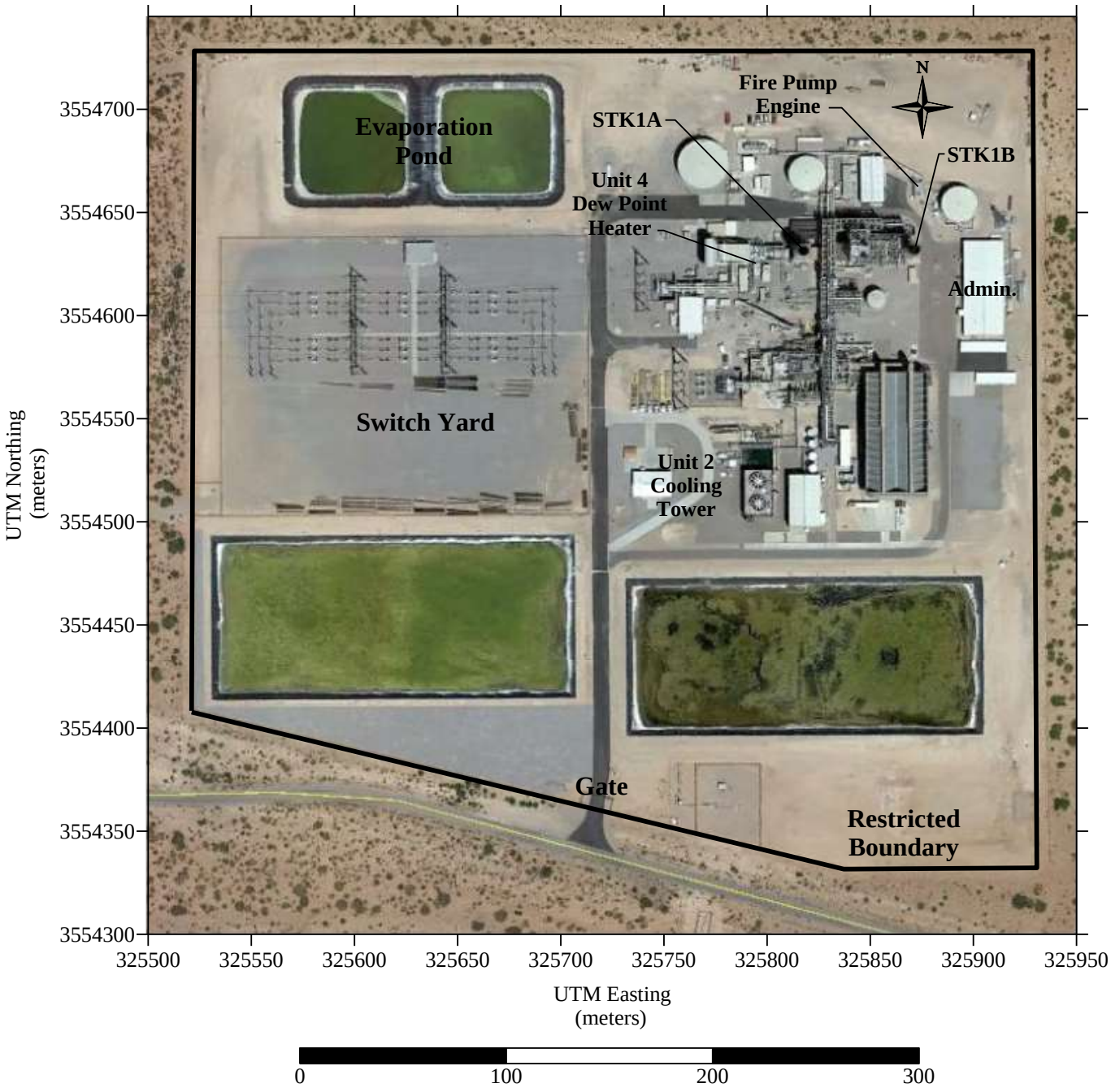
A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.



Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.



Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rational for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:

A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.

B. At least 5 significant figures shall be retained in all intermediate calculations.

C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

(1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;

(2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**

(3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.

(4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device

regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

COMBUSTION TURBINE EMISSIONS (Emissions Unit 1)

Criteria pollutant emissions for the combustion turbine have been supplied by the turbine manufacturer. There are two cases: one with the "fogger" on and one with the "fogger" off. The fogger is an evaporative cooler that can cool the air supplied to the turbine. This results in greater mass flow and greater generation capacity. The fogger is typically used only above 60º F ambient temperature. The differences between the fogger on and off cases are typically small. Because maximum emission rates usually occur at lower ambient temperatures, the maximum emission rates do not depend on which case is used. Wherever a choice had to be made between using the fogger on or fogger off performance data, the case was selected that gives a combination of highest emissions and "worst case" (for dispersion modeling purposes) stack parameters.

Turbine emission rates and turbine performance parameters are functions of ambient temperature. For the Afton area the lowest expected ambient temperature is taken as 0º F. This was selected after review of climatic data obtained from National Weather Service Cooperative Station 298535 in Las Cruces. This data covers a 41-year period (1959 through 2000). During that period there were only two instances of temperatures below 0º F. Therefore, 0º F has been selected as a reasonable worst-case low temperature. The annual average temperature during this period was 61.5º F. The turbine vendor specification sheets provide information at 60º F, therefore 60º F is used as the typical or annual ambient temperature. The maximum expected temperature has been selected to be 110º F.

Pipeline Natural Gas Operation

Nitrogen Oxides - Simple Cycle/Uncontrolled - Gas Fired

Short-term Emissions

The maximum hourly NOx emission rate occurs at 0º F and 9 ppm. The rate is:

55 lbs NOx/hr

Annual NOx Mass Emissions:

At the annual average temperature of 60º F, the hourly NOx emission rate is 9 ppm or 52 lbs/hr.

8,760 hrs/yr * 52 lbs/hr * 1 ton/2000 lbs = 228 tpy rounded up to **230 tpy NOx**.

Nitrogen Oxides - Combined Cycle/Controlled - Gas Fired

NOx emissions from the gas turbine will be controlled by an SCR unit. The SCR unit is designed to emit no more than 3.5 ppm NOx by volume at 15% O_2 and dry flow rate conditions. This emission rate was determined to represent BACT in the original permit issued to this facility. The uncontrolled emissions are 9 ppm. The vendor supplied 9 ppm is corrected to 15% O_2 and dry flow rate conditions. At 9 ppm, the maximum uncontrolled mass emission rate is 55 lbs/hr and the average emission rate is 52 lbs/hr NOx. The controlled mass emission rate can be calculated by:

Short-term Controlled Emissions:

3.5 ppm/9 ppm * 55 lbs/hr = 21.4 lbs/hr rounded to **22 lbs NOx/hr**.

Annual Controlled Emissions:

3.5 ppm/9ppm * 52 lbs/hr = 20.2 lb/hr rounded up to 21 lbs/hr

21 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = **92 tpy controlled NOx**.

These controlled emissions are without the duct burner. As described later in this section, however, duct burner operation adds very little flow rate to the SCR exhaust gases. The SCR is designed to achieve 3.5 ppm outlet NOx including with the duct burner operating. Therefore, controlled emissions with the duct burner are only marginally larger than without the duct burner.

Carbon Monoxide - Gas Fired

Short-term Emissions:

The maximum hourly CO emission rate occurs at 0º F. The rate is:

28 lbs CO/hr

Annual CO Mass Emissions:

At the annual average temperature of 60º F, the CO emission rate is 26 lbs/hr.

8,760 hrs/yr * 26 lbs/hr * 1 ton/2000 lbs = **114 tpy CO**.

Volatile Organic Compounds - Gas Fired

The vendor specification sheet gives two different values for organic compound emissions. One is designated as UHC (unburned hydrocarbons) and the other as VOC (volatile organic compounds). The UHC value is considerably larger than the VOC value and probably includes compounds such as methane, which are usually not included in the definition of VOC. However, to be conservative, the following calculation uses the manufacturer's value of UHC.

Short-term Emissions:

The maximum UHC (VOC) emission rate occurs at 0º F. The rate is:

13 lbs UHC/hr.

Annual VOC Mass Emissions:

The annual emission rate at 60º F is also 13 lbs/hr.

8,760 hrs/yr * 13 lbs/hr* 1ton/2000 lbs = **57 tpy UHC (VOC)**.

Sulfur Dioxide Emissions - Gas Fired

Sulfur dioxide emissions are a function of the sulfur content of the fuel. Pipeline quality natural gas contains only trace amounts of sulfur compounds. Potential sulfur dioxide emissions have been calculated using 0.6 grains S/100 scf of natural gas.

Short-term Emissions:

From the vendor specification sheets, the maximum fuel consumption rate occurs at 0º F and is 1,514.3 MMBtu/hr based on the LHV. The LHV for natural gas for the Afton facility is 921 Btu/scf (equivalent to 1023 Btu/scf HHV).

1,514.3 MMBtu/hr * 1 scf/921 Btu = 1.644 x 10^6 scf gas/hr.

0.6 grains S/100 scf * 1.644 x 10^6 scf gas/hr * 1 lb/7000 grains = 1.41 lbs S/hr = **2.8 lbs SO_2/hr**.

Annual SO_2 Mass Emissions:

At the annual average temperature of 60º F, the fuel consumption rate is 1415.4 MMBtu/hr.

1,415.4 MMBtu/hr * 1 scf/921 Btu = 1.537 x 10^6 scf gas/hr.

0.6 grains S/100 scf * 1.537 x 10^6 scf gas/hr * 1 lb/7000 grains = 1.317 lbs S/hr = 2.6 lbs SO_2/hr.

8,760 hrs/yr * 2.6 lbs SO_2/hr = 11.4 tpy rounded up to **12 tpy SO_2**.

Particulate Matter Emissions - Gas Fired

The particulate matter emission level for particulate matter specified by the manufacturer is 9.0 lb/hr. The PM emissions are not a function of temperature. It is expected that all PM emissions would be in the form of PM_{10} and $PM_{2.5}$. Therefore, PM equals PM_{10} equals $PM_{2.5}$.

Short-term Emissions:

From the manufacturer's specification sheet at all temperatures the emission rate is:

9 lbs/hr PM/hr. This has been rounded up to **10 lbs/hr maximum PM**

Annual PM Mass Emissions:

8,760 hrs/yr * 9 lbs/hr * 1 ton/2000 lbs = **40 tpy PM.**

HAP Emissions _ Gas Fired

HAP emissions have been calculated based on EPA AP-42 emission factors. For formaldehyde, the emission factor is available for gas turbines (AP42 Table 3.1-3). For metals, emission factors for general natural gas combustion (AP42 Table 1.4-4 and Table 1.4-2 for lead) were used.

Formaldehyde and other Organic HAP

Short-term Emissions:

0.00071 lb/MMBtu * 1,514.3 MMBtu/hr = **1.08 lb/hr formaldehyde**.

Annual Formaldehyde Mass Emissions:

0.00071 lb/MMBtu * 1415.4 MMBtu/hr = 1.0 lb/hr

1.0 lb/hr * 8,760 hrs/yr *1 ton/2000 lbs = 4.4 tpy

The emission factors for other HAP listed in AP42 3.1-3 are all significantly less than formaldehyde. Therefore, detailed calculation for the other HAP are not presented.

Metals

Metal emissions from natural gas combustion are based on AP42-1.4-4 except for lead. Lead emissions are based on AP42 1.4-2. The emission factors are given in terms of lbs per 1,000,000 scf of gas. The scf of gas was calculated from the vendor heat input rates and a gas heat value of 921 Btu/scf (LHV). On this basis, the maximum gas consumption rate is 1.644×10^6 scf gas/hr maximum and 1.537×10^6 scf gas/hr average.

Compound	Emission Factor lb/mm ft^3	Maximum Lb/hr	Average Lb/hr	Pounds Per Year
Arsenic	2.0E-04	0.000329	0.000307	2.7
Chromium	1.4E-03	0.002302	0.002152	18.8
Cobalt	8.5E-05	0.000138	0.000129	1.1
Cadmium	1.1E-03	0.001809	0.001691	14.8
Lead	5.0E-4	0.000822	0.000769	6.7
Manganese	3.8E-04	0.000625	0.000584	5.1
Mercury	2.6E-04	0.000427	0.000400	3.5
Nickel	2.1E-03	0.003453	0.003228	28.3

Fuel Oil Operation

The AGS turbine is capable of combusting fuel oil. However, fuel oil will be used only as an emergency backup fuel in case of curtailment of the pipeline natural gas supply and for testing the fuel oil system. Emissions during fuel oil firing will be reported as scheduled maintenance for fuel oil system testing. Emissions during emergency oil-fired operation will be reported as emergency upset/breakdown emissions.

The maximum fuel oil use will be 200 hours per year. The maximum emission rate occurs at an ambient temperature of 0º F. For long-term emission rates, it is possible that most of the oil-fired hours could occur in a limited part of the year rather than spread evenly throughout the year. Therefore, an ambient temperature of 40º F has been selected as the reasonable worst-case (40º F is the average winter season temperature in the Las Cruces area) for average oil-fired emissions.

Nitrogen Oxides - Oil Fired

The NOx emission rate for AGS when oil-fired is 42 ppm by volume (corrected to 15% O_2 and dry flow conditions).

Short-term Emissions:

At 0º F the maximum emission rate during oil firing is:

300 lbs/hr NOx maximum.

Long-term NOx Emission Rate:

At 40º F the emission rate is 285 lbs NOx/hr. The total annual emissions, based on 200 hours of oil firing per year, is

285 lbs/hr * 200 hrs/yr * 1 ton/2000 lbs = 28.5 tpy rounded up to **30 tpy NOx**.

Carbon Monoxide - Oil Fired

Short-term Emissions:

From the vendor specification sheet, the maximum emission rate which occurs at 0º F is:

63 lbs CO/hr maximum

Long-term Emissions:

The emission rate at 40º F is 59 lbs CO/hr.

59 lbs CO/hr * 200 hrs/yr * 1 ton/2000 lbs = 5.9 tpy rounded to **6 tpy CO.**

VOCs - Oil Fired

Short-term Emissions:

At 0º F, the UHC emission rate from the vendor specification sheet is

14 lbs UHC/hr maximum

Long-term Emission Rate:

At 40º F the UHC emission rate from the vendor specification sheet is 13 lbs UHC/hr.

13 lbs UHC/hr * 200 hrs/yr * 1 ton/2000 lbs = **1.3 tpy UHC**.

Sulfur Dioxide Emissions – Oil-Fired

Sulfur dioxide emissions are a function of the sulfur content of the fuel. The sulfur content of fuel oil used at the AGS will be limited to no more than 0.05% sulfur by weight. The vendor specification sheet gives a maximum fuel oil consumption rate of 1699.6 MMBtu/hr and the heating value of distillate fuel oil as 18,300 Btu/lb.

Short-term Emission Rate:

1,699.6 $x10^6$ Btu/hr * 1 lb/18,300 Btu * 0.0005 lb S/lb oil* 2 lb SO_2/lb S = **93 lb/hr SO_2**

Long-term Emission Rate:

At 40º F the maximum fuel oil consumption rate from the vendor specification sheet is 1,614 mm Btu/hr.

1,614$x10^6$Btu/hr* 1 lb/18,300Btu * 0.0005 lb S/lb oil * 2 lbs SO_2/lb S = 88.2 lb SO_2/hr

88.2 lbs SO_2 * 200 hrs/yr * 1 ton/2000 lbs = 8.8 tpy rounded to **9 tpy SO_2/yr.**

Particulate Matter Emissions – Oil-Fired

The particulate matter emission level specified by the manufacturer is 17.0 lb/hr of PM emissions. The PM emissions are not a function of temperature. It is expected that all PM emissions would be in the form of PM_{10} and $PM_{2.5}$. Therefore, PM equals PM_{10} equals $PM_{2.5}$ emissions.

Short-term Emissions:

17 lbs/hr PM

Long-term Emissions

17 lbs/hr * 200 hrs/yr * 1 ton/2000 lbs = 1.7 tpy rounded to **2 tpy PM**

HAP Emissions – Oil-Fired

Oil fired HAP emissions have been calculated based on EPA AP-42 emission factors. For formaldehyde, the emission factor is available for oil-fired gas turbines (AP42 Table 3.1-4). For metals, emission factors for oil-fired gas turbines (AP42 Table 3.1-5) was used.

Formaldehyde and other Organic HAP

Short-term Emissions:

0.00028 lb/MMBtu * 1,699.6 MMBtu/hr = 0.48 rounded to 0.5 **lb/hr formaldehyde**.

Long-term Emissions:

0.00026 lb/MMBtu * 1,614 MMBtu/hr = 0.42 lb/hr

0.42 lb/hr * 200 hrs/yr *1 ton/2000 lbs = 0.042 **tpy formaldehyde**.

The emission factors for other HAP listed in AP42 3.1-4 are all significantly less than formaldehyde. Therefore, detailed calculation for the other HAPs are not presented.

Metals

Metal emissions fuel oil combustion are based on AP42 3.1-5. The emission factors are given in terms of lbs per MMBtu. The maximum firing rate used is 1,699.6 MMBtu/hr and the average firing rate is 1,614 MMBtu/hr. Note that the long-term emissions are given in terms of pounds per year, not tons per year, because the values are small.

Compound	Emission Factor lb/mm ft^3	Maximum Lb/hr	Pounds Per Year
Arsenic	1.1E-5	0.019	3.6
Beryllium	3.1E-7	0.001	0.01
Chromium	1.1E-5	0.019	3.6
Selenium	2.5E-5	0.043	8.1
Cadmium	4.8E-6	0.008	1.6
Lead	1.4E-5	0.024	4.6
Manganese	7.9E-4	1.34	255
Mercury	1.6E-6	0.002	0.04
Nickel	4.6E-6	0.008	1.5

Cooling Tower PM Emissions (Unit 2):

PM

The maximum cooling tower (Emission Unit 2) maximum circulating water rate is 18,781 gpm. The cooling tower liquid drift rate, per manufacturer's specifications and guarantees is 0.0005 percent and the maximum TDS of the circulating cooling water is 4,500 mg/l.

18,781 gpm * 0.000005 = 0.0939 gpm liquid drift loss = 5.63 gallons/hr of liquid drift loss

4,500 mg/l * 1 liter/0.2642 gal * 1 g/1000mg * 1lb/453.6g = 0.03755 lbs TDS/gallon

0.03755 lbs TDS/gal * 5.63 gal/hr = 0.211 lbs PM/hr = 0.93 tons PM/yr

PM10

PM10 emissions have been calculated using the NMED guidance method (Technical Memorandum from Daren Zigich dated 9/9/13).

Using this method (see calculation summary below) approximately 33.5 percent of the total PM is PM10.

PM10 (at 4,500 mg/l) = 0.335 * 0.211 lbs PM/hr = 0.071 lbs PM10/hr = 0.31 tons PM10/yr

PM2.5

The same methodology can also be used to calculate PM2.5 emissions. From the summary below PM2.5 emissions are approximately 0.2 percent of the total PM emissions.

PM2.5 (at 4,500 mg/l) = 0.002 * 0.211 lbs PM/hr = 0.00042 lbs PM2.5/hr = 0.0018 tons PM2.5/yr

Afton Generating Station
Cooling Tower PM10/PM2.5 Calculation
TDS= 4500 mg/l
rho 2.2

DEW POINT	Droplet Diameter µm	Droplet Volume (µm)3	Droplet Mass µg	PM Mass µg	PM Volume (µm)3	Solid Diameters µm	Mass Fraction %
	10	523.6	0.000524	2.35613E-06	1.07097	1.269384	0
	20	4188.7	0.004189	1.88491E-05	8.567759	2.538768	0.196
	30	14136.8	0.014137	6.36156E-05	28.91619	3.808152	0.226
	40	33509.5	0.033509	0.000150793	68.54207	5.077535	0.514
	50	65448.2	0.065448	0.000294517	133.8712	6.346919	1.816
	60	113094.4	0.113094	0.000508925	231.3295	7.616302	5.702
	70	179589.7	0.17959	0.000808154	367.3426	8.885686	21.348
	90	381693.6	0.381694	0.001717621	780.737	11.42445	48.812
	110	696892.0	0.696892	0.003136014	1425.461	13.96322	70.509
	130	1150316.8	1.150317	0.005176426	2352.921	16.50199	82.023
	150	1767100.2	1.7671	0.007951951	3614.523	19.04075	88.012
	180	3053549.1	3.053549	0.013740971	6245.896	22.8489	91.032
	210	4848922.9	4.848923	0.021820153	9918.251	26.65706	92.468
	240	7238042.4	7.238042	0.032571191	14805.09	30.46521	94.091
	270	10305728.3	10.30573	0.046375778	21079.9	34.27336	94.689
	300	14136801.6	14.1368	0.063615607	28916.19	38.08151	96.288
	350	22448717.3	22.44872	0.101019228	45917.83	44.42842	97.011
	400	33509455.6	33.50946	0.15079255	68542.07	50.77534	98.34
	450	47711705.3	47.71171	0.214702674	97592.12	57.12226	99.071
	500	65448155.4	65.44816	0.294516699	133871.2	63.46917	99.071
	600	113094412.6	113.0944	0.508924857	231329.5	76.16301	100

Linear interpolation between the solid diameters of 11.42 µm and 8.88 µm gives 33.5% of PM is less than or equal to 10 µm.

HEATER EMISSIONS (Emission Unit 4)

The dew point heater is a small (5.1 MMBtu/hr heat input, HHV) gas-fired heater used to prevent condensation in the turbine natural gas supply line. The dew point heater is being permitted to operate up to 8,760 hours per year.

Nitrogen Oxides

Short Term Emissions

Per the manufacturer's specifications, the NOx emission rate at full load is 0.21 lbs/hr. This rate up rounded up to **0.25 lbs/hr NOx.**

Annual Emissions

0.25 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = **1.1 tons NOx/yr**

Carbon Monoxide

Short Term Emissions

Per the manufacturer's specifications, the CO emission rate at full load is 0.18 lbs/hr. This rate up rounded up to **0.20 lbs/hr CO.**

Annual Emissions

0.20 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = 0.9 tons CO/yr **rounded to 1.0 tpy.**

VOC (Volatile Organic Compounds)

Short Term Emissions

Per the manufacturer's specifications, the VOC emission rate at full load is **0.10 lbs/hr VOC.**

Annual Emissions

0.10 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = **0.4 tons VOC/yr**

Particulate Matter (PM10 and PM)

PM emissions from natural gas combustion are typically very small. PM emissions have not been specified by the manufacturer. Therefore, PM emissions have been estimated using AP42 emission factors. The AP42 emission factor for general natural gas combustion is 7.6 lbs/million scf (AP42 Table 1.4-2, 1998). This is for total PM (i.e. filterable and condensable). The higher heating value for the natural gas is 1,023 Btu/scf.

Short Term Emissions

5.1 million Btu/hr * 1 scf/1,023 Btu = 4,985 scf natural gas/hr

4,985 scf/hr * 7.6 lbs PM/1,000,000 scf = 0.038 lbs PM/hr rounded to **0.04 lbs PM/hr**

Annual Emissions

0.04 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = 0.18 tons PM/yr rounded to **0.20 tons/yr**.

Sulfur Dioxide

Pipeline quality natural gas contains only trace amounts of sulfur compounds. Potential sulfur dioxide emissions have been calculated using an AP42 emission factor of 0.6 lbs/SO_2 per 1,000,000 cubic feet of natural gas (AP42 Table 1.4-2). The maximum fuel combustion rate is 4,985 scf/hr.

Short Term Emissions

4,985 scf/hr * 0.6 lbs SO_2/1,000,000 scf = **0.003 lbs SO_2/hr**

Annual Emissions

0.003 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = **0.013 tons SO_2/yr**

HAP

Because of the low natural gas use rate (a factor of about 400 less than the combined turbine and duct burner gas use rate), potential HAP emissions from the dew point heater are extremely small and would be less than the rounding used for HAP from the turbine and duct burner. Therefore, detailed HAP calculations are not presented.

DUCT BURNER EMISSIONS (Emissions Unit 7)

The duct burner will be fired by natural gas only and will only operate when the facility is in combined cycle mode. The emission calculations below assume that all duct burner emissions are additive to the gas turbine emissions except for controlled NOx emissions. The NOx SCR control system is designed to control NOx emissions to no more than 3.5 ppm NOx by volume - with or without the duct burner in operation. The duct burner adds a very small increment to the total volumetric flow rate through the SCR system. Only natural gas is added to the duct burner. No additional air is added for the duct burner combustion process. Because the additional flow rate is small, the incremental controlled NOx emissions are also small.

The duct burner has a maximum heat input rate of 502 MMBtu/hr. This has been rounded up to 505 MMBtu/hr for most calculation purposes. This firing rate is not a function of ambient temperature.

The duct burner will only operate during periods of peak electrical demand. This application is requesting a limit on duct burner hours of operation at 1,920 hours per year. Therefore, long-term (annual) emission rates are calculated based on 1,920 hours.

Nitrogen Oxides - Uncontrolled

Short-term Emissions

From the manufacturer's specification sheet, the duct burner NOx emission rate is 0.1 lbs NOx/MMBtu

0.1 lbs NOx/MMBtu * 505 MMBtu/hr = 50.5 lbs/hr rounded to **51 lbs/hr uncontrolled NOx**.

Long-term Emissions:

51 lbs/hr * 1,920 hrs/yr * 1 ton/2000 lbs = **49 tpy uncontrolled NOx**.

Nitrogen Oxides - Combined Cycle/Controlled

The exhaust gas flow rate without the duct burner operating is, at typical operating conditions of 60º F, approximately 650,670 scfm. With the duct burner operating, there will be an approximate increase in exhaust flow rate of 8,173 scfm for a total flow rate of 658,842 scfm. These values are in terms of scfm rather than in terms of dry flow rates corrected to 15% oxygen. However, the ratio of the two indicates the factor for increase flow expressed in any units.

658,842/650,670 = 1.01256

Short-term Incremental Controlled Emissions:

The NOx emission rate at 3.5 ppm from the turbine only is 22 lbs NOx/hr. This will be increased by 22 * 1.01256 = 0.276 lbs/hr rounded to 0.3 lbs/hr when the duct burner is running. Therefore, the **incremental controlled NOx emission rate is 0.3 lbs/hr NOx**.

Annual Incremental Controlled Emissions:

0.267 lbs/hr * 1,920 hrs/yr * 1 ton/2000 lbs = 0.265 tpy rounded to **0.3 tpy incremental controlled NOx**.

Carbon Monoxide

Per the equipment vendor specification sheet, the CO emission rate is 0.1 lbs CO/MMBtu

Short-term Emissions:

0.1 lb CO/MMBtu * 505 MMBtu/hr = 50.5 rounded to **51 lbs/hr CO**

Long-term Emissions:

1,920 hrs/yr * 51 lbs/hr * 1ton/2000 lbs = **49 tpy CO**.

Volatile Organic Compounds

Per the equipment vendor specification sheet, the VOC emission rate is 0.04 lb VOC/MMBtu

Short-term Emissions:

0.04 lb VOC/MMBtu * 505 MMBtu/hr = **20.2 lbs/hr VOC.**

Long-term Emissions:

1,920 hrs/yr * 20.2 lbs/hr* 1ton/2000 lbs = **19.4 tpy VOC**.

Sulfur Dioxide Mass Emissions

Sulfur dioxide emissions are a function of the sulfur content of the fuel. Pipeline quality natural gas contains only trace amounts of sulfur compounds. Potential sulfur dioxide emissions have been calculated using 0.6 grains S/100 scf of natural gas. This is equivalent to the definition of "pipeline natural gas" found 40CFR72 (see Attachment D-3).

Short-term Emissions:

The heat input, 505 MMBtu/hr is based on the higher heating value, 1,023 Btu/scf.

505 MMBtu/hr * 1 scf/1,023 Btu = 0.493646 x 10^6 scf gas/hr.

0.6 grains/100 scf * 0.493646 x 10^6 scf gas/hr * 1 lb/7000 grains = 0.45 lbs S/hr = **0.9 lbs SO_2/hr**.

Long-term Emissions:

1,920 hrs/yr * 0.9 lbs SO_2/hr = 0.86 tpy rounded up to **0.9 tpy SO_2**.

Particulate Matter Emissions

Per the vendor specification sheet, the PM emission rate is 0.015 lbs/MMBtu.

Short-term Emissions:

505 MMBtu/hr * 0.015 lbs/MMBtu = 7.6 rounded to **8 lbs/hr PM emissions.**

Long-term Emissions:

1,920 hrs/yr * 8 lbs/hr * 1 ton/2000 lbs = **7.7** tpy rounded to **8 tpy PM emissions**.

HAP Emissions

HAP emissions have been calculated based on EPA AP-42 emission factors. For organics, the emission factors are based on general natural gas combustion (AP42 Table 1.4-3). For metals, emission factors for general natural gas combustion (AP42 Table 1.4-4 and Table 1.4-2 for lead) were used.

Formaldehyde

Short-term Emissions:

The formaldehyde emission factor is 0.075 lbs/million scf. The scf of gas is 0.493646 million scf/hr.

0.493646mmscf/hr * 0.075 lbs/mmscf = **0.037 lbs HCHO/hr.**

Long-term Emissions:

0.037 lb/hr * 1,920 hrs/yr *1 ton/2000 lbs = **0.035 tpy HCHO**.

Hexane

The emission factor for hexane is 1.8 lbs/mmscf.

0.493646mmscf/hr * 1.8 lbs/mmscf = **0.89 lbs hexane/hr.**

Long-term Emissions:

0.89 lb/hr * 1,920 hrs/yr *1 ton/2000 lbs = **0.85 tpy hexane**.

Metals

Metal emissions from natural gas combustion are based on AP42-1.4-4 except for lead. Lead emissions are based on AP42 1.4-2. The emission factors are given in terms of lbs per 1,000,000 scf of gas. A gas input rate of 0.493646 million scf/hr is used for these calculations.

Compound	Emission Factor lb/mm ft^3	Average Lb/hr	Pounds Per Year
Arsenic	2.0E-04	0.000099	0.19
Chromium	1.4E-03	0.000691	1.3
Cobalt	8.5E-05	0.000042	0.08
Cadmium	1.1E-03	0.000543	1.0
Lead	5.0E-4	0.000247	0.47
Manganese	3.8E-04	0.000188	0.36
Mercury	2.6E-04	0.000128	0.25
Nickel	2.1E-03	0.00104	2.0

AMMONIA EMISSIONS

The NOx control system uses ammonia as a reagent. In order for the control system to operate properly, some amount of excess ammonia is required. This excess ammonia exits the SCR/combined cycle stack and is often referred to as "ammonia slip". The amount of allowable ammonia slip is specified in the existing permit for this facility as 10 ppm by volume. This 10 ppm is not specified as being corrected to dry conditions or 15% O_2. It is, therefore based on unmodified flow rates.

The maximum flowrate at 0º F is 729,909 scf/m

729,909 scf/min * 10/1,000,000 * 60 min/hr * 17 lbs NH_3/359 scf NH_3 = 20.7 lbs/hr maximum NH_3 rounded to **21 lbs/hr**.

At average ambient conditions (60º F) and with the duct burner in operation, the gas flow rate through the SCR unit is 658,842 scfm. At 10 ppm by volume this is

658,842 scf/min * 10/1,000,000 * 60 min/hr * 17 lbs NH_3/359 scf NH_3 = 18.7 lbs/hr average NH_3.

Note: One pound-mole of any ideal gas at standard temperature and pressure (0 degrees C and 1 atmosphere) occupies 359 cubic feet per the ideal gas law. One pound -mole of NH_3 is 17 pounds.

18.7 lbs/hr * 8,760 hrs/yr * 1 ton/2000 lbs = **82 tpy ammonia**.

STORAGE TANKS

AGS has three storage tanks:

2) 7,000 sulfuric acid tank
3) 7,000 bleach tank
4) 20,000 gallon aqueous ammonia tank

Tank 1 has been deleted from the NSR permit. It was initially included in the permit because it could be used to store fuel oil. This tank is being used and will continue to be used as needed to store water, not fuel oil, and therefore the tank is not being included in this application.

None of the storage tanks are significant emission sources for the following reasons.

Sulfuric Acid Tank - 93% sulfuric acid does not have a high vapor pressure. The estimated turnovers per year is slightly over 1 (1.2). Under normal circumstances the tank will be sealed and not vented to the atmosphere.

Bleach Tank - The bleach tank will contain a 14% solution of sodium hypochlorite (NaOCl). The tank will be sealed, not vented to the atmosphere. The tank will be filled with a closed loop system so there will be no emissions during the filling process. The bleach solution is added to the cooling water. The quantity added is closely controlled to give a just detectable (approximately 1 ppm) amount of hypochlorite ion in the cooling water. This is done to insure enough hypochlorite is being used. The vast majority of the hypochlorite ion is used up destroying algae and other biological materials. Therefore, essentially no chlorine is released to the atmosphere from this process.

Ammonia Tank - The ammonia tank will be a closed, sealed system. The tank will not vent to the atmosphere. During ammonia solution delivery, the transfer from the delivery truck to the ammonia tank will employ a closed loop system. Therefore, there will be no atmospheric ammonia emissions from the ammonia tank system.

FIRE PUMP DIESEL ENGINE (Emission Unit 8)

Emissions from the fire pump diesel engine, rated at 265 hp, have been calculated based on manufacturer supplied emission rates (see Attachment A-P211-7-FPump) as follows:

NOx

6.7 grams/hp-hr * 265 hp = 1775.5 grams/hr

1775.5 grams/hr * 1 lb/453.6 grams = 3.9131 lbs/hr

3.91 lbs/hr * 500 hrs/yr * 1 ton/2000 lbs = 0.98 tpy

CO

0.29 grams/hp-hr * 265 hp = 76.850 grams/hr

76.850 grams/hr * 1 lb/453.6 grams = 0.16942 lbs/hr

0.16942 lbs/hr * 500 hrs/yr * 1 ton/2000 lbs = 0.042 tpy

SO_2

0.67 grams/hp-hr * 265 hp = 177.55 grams/hr at 0.2% Sulfur

Sulfur content of current diesel fuel (ultra-low sulfur) is 0.015%. Therefore, the SO2 emission rate has been scaled by 0.015/0.2 to give:

0.015/0.2 * 177.55 grams/hr = 13.316 grams/hr

13.316 grams/hr * 1 lb/453.6 grams = 0.029357 lbs/hr

0.029357 lbs/hr * 500 hrs/yr * 1 ton/2000 lbs = 0.0073 tpy

HC (VOC)

0.23 grams/hp-hr * 265 hp = 60.950 grams/hr

60.950 grams/hr * 1 lb/453.6 grams = 0.13437 lbs/hr

0.13437 lbs/hr * 500 hrs/yr * 1 ton/2000 lbs = 0.034 tpy

PM

0.07 grams/hp-hr * 265 hp = 18.550 grams/hr

18.550 grams/hr * 1 lb/453.6 grams = 0.04090lbs/hr

0.04090 lbs/hr * 500 hrs/yr * 1 ton/2000 lbs = 0.010 tpy

Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO_2e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO_2e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO_2e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO2e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following □ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at http://www.epa.gov/ttn/chief/ap42/index.html
- EPA's Internet emission factor database WebFIRE at http://cfpub.epa.gov/webfire/
- 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at http://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases:

Global Warming Potentials (GWP):
Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO_2 over a specified time period.

"Greenhouse gas" for the purpose of air permit regulations is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. **(20.2.70.7 NMAC, 20.2.74.7 NMAC).** You may also find GHGs defined in 40 CFR 86.1818-12(a).

Metric to Short Ton Conversion:
Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.
1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

COMBUSTION TURBINE EMISSIONS (Emissions Unit 1 and Unit 7)

Greenhouse gas emissions from the combustion turbine (Unit 1) and duct burner (Unit 7). From the vendor specification sheets, the maximum fuel consumption rate occurs at 0º F and is 1,514.3 MMBtu/hr based on the LHV. The combustion turbine is being permitted to operate up to 8,760 hours per year. Greenhouse gas emissions from the dew point heater have been calculated based on EPA Emission Factors for Greenhouse Gas Inventories, March 9, 2018 as follows:

	Emission Factor kg/MMBtu gas	**Emissions lb/hr**	**Emissions tpy**
CO2	53.02	180160.94	789104.93
Methane	0.001	3.40	14.88
N20	0.0001	0.340	1.49
		180165	789121
CO2e (CO2*1)		180161	789105
CO2e (Methane*25)		85	372
CO2e (N20*298)		101	444
	CO2e Total	**180347**	**789921**

HEATER EMISSIONS (Emission Unit 4)

Greenhouse gas emissions from the dew point heater rated at 5.1 MMBtu/hr heat input, HHV, gas-fired heater used to prevent condensation in the turbine natural gas supply line. The dew point heater is being permitted to operate up to 8,760 hours per year. Greenhouse gas emissions from the dew point heater have been calculated based on EPA Emission Factors for Greenhouse Gas Inventories, March 9, 2018 as follows:

	Emission Factor kg/MMBtu gas	**Emissions lb/hr**	**Emissions tpy**
CO2	53.02	596.13	2611.07
Methane	0.001	0.011	0.049
N20	0.0001	0.0011	0.0049
		596	2611
CO2e (CO2*1)		596	2611
CO2e (Methane*25)		0.28	1.23
CO2e (N20*298)		0.34	1.47
	CO2e Total	**597**	**2614**

FIRE PUMP DIESEL ENGINE (Emission Unit 8)

Greenhouse gas emissions from the fire pump diesel engine, rated at 265 hp, with a fuel consumption of 16 gallons per hour, have been calculated based on EPA Emission Factors for Greenhouse Gas Inventories, March 9, 2018 as follows:

	Emission Factor g/gallon	**Emissions lb/hr**	**Emissions tpy**
CO_2	10210	360.14	90.0
Methane	0.41	0.014	0.0036
N_20	0.0001	0.000004	0.0000009
		360	90
CO2e (CO_2*1)		360.14	90.0
CO2e (Methane*25)		0.35	0.088
CO2e (N_20*298)		0.0011	0.00026
	CO2e Total	**360**	**90**

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- **X** If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
- ☐ If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
- **X** If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
- ☐ If an older version of AP-42 is used, include a complete copy of the section.
- ☐ If an EPA document or other material is referenced, include a complete copy.
- ☐ Fuel specifications sheet.
- ☐ If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.

See Attachment A-211-7-Afton7FA for the manufacturer's turbine specification sheets.

See Attachment A-211-7-FPump for the fire pump engine manufacturer's specification sheet.

IPS # 91014 - Afton Power Project
ESTIMATED PERFORMANCE PG7241(FA)
FOGGER ON

		Generator Case														
Load Condition		BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Inlet Loss	in. H2O	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Exhaust Pressure Loss	in H2O	10.4	13.5	13.2	12.8	12.5	12.2	11.8	11.4	11.8	11.3	11	10.7	10.3	9.9	
Ambient Temp.	Deg F.	97	-10	0	10	20	30	40	50	60	70	80	90	100	110	
GE SPRITS System Status		On	Off	Off	Off	Off	Off	Off	Off	On	On	On	On	On	On	
GE SPRITS System Effect %		85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85	85	85	85	85	85	
Fuel Type		Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	Cust Gas	
Fuel LHV	Btu/lb	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	
Fuel Temperature	Deg F	80	80	80	80	80	80	80	80	80	80	80	80	80	80	
Output	kW	140,100.00	166,100.00	163,800.00	161,400.00	158,700.00	155,900.00	152,800.00	149,400.00	151,300.00	148,800.00	146,100.00	142,600.00	139,000.00	135,200.00	
Heat Rate (LHV)	Btu/kWh	9,560.00	9,240.00	9,245.00	9,250.00	9,265.00	9,290.00	9,325.00	9,370.00	9,355.00	9,395.00	9,445.00	9,510.00	9,585.00	9,670.00	
Heat Conz. (LHV)	MBtu/hr	1,339.40	1,534.80	1,514.30	1,493.00	1,470.40	1,448.30	1,424.90	1,399.90	1,415.40	1,398.00	1,379.90	1,356.10	1,332.30	1,307.40	
Exhaust Flow x10^3	lb/hr	2997	3485	3433	3380	3327	3272	3217	3159	3182	3136	3089	3036	2980	2919	
Exhaust Temp.	Deg F.	1132	1042	1052	1062	1072	1083	1094	1105	1100	1109	1118	1126	1134	1143	
Exhaust Energy	MBtu/hr	813.4	913.9	901.5	889.3	876.7	864.7	852.3	840.1	848.5	840.4	832.3	821.1	810.1	798.7	
EMISSIONS																
NOx	ppmvd @ 15% O2	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
NOx AS NO2	lb/hr	49	59	58	58	54	53	52	51	52	51	51	50	49	48	
CO	ppmvd	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
CO	lb/hr	24	29	28	28	27	27	26	26	26	26	25	25	24	23	
UHC	ppmvw	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
UHC	lb/hr	12	14	13	13	13	13	13	12	13	12	12	12	12	12	
VOC	ppmvw	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
VOC	lb/hr	2.4	2.8	2.8	2.8	2.6	2.6	2.6	2.4	2.6	2.4	2.4	2.4	2.4	2.4	
Particulates (PM10 Front-half Filterable Only)	lb/hr	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
EXHAUST ANALYSIS % VOL.																
Argon		0.89	0.9	0.9	0.9	0.89	0.9	0.9	0.91	0.89	0.88	0.88	0.87	0.89	0.87	
Nitrogen		73.5	75.24	75.22	75.2	75.18	75.14	75.09	75.02	74.52	74.31	74.06	73.76	73.38	72.92	
Oxygen		12.82	12.83	12.82	12.8	12.79	12.77	12.75	12.73	12.59	12.53	12.45	12.38	12.29	12.17	
Carbon Dioxide		3.78	3.76	3.77	3.77	3.77	3.78	3.78	3.78	3.79	3.79	3.79	3.79	3.78	3.78	
Water		9.52	7.28	7.3	7.33	7.37	7.42	7.48	7.57	8.22	8.49	8.82	9.2	9.67	10.26	
SITE CONDITIONS																
Elevation	ft	4220														
Site Pressure	psia	12.61														
Exhaust Loss	in H2O	15.0 @ ISO Conditions														
Relative Humidity	%	20														
Application		Hydrogen-Cooled Generator														
Combustion System		9/42 DLN Combustor														

Emission infor. based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 w/out heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1).
NOx levels shown will be controlled by algorithms w/in the SPEEDTRONIC control system.

IPS- . 91014 GR0728 Version Code - 3.0.4/27A1/2.2.7/PG7241UF-1200
SINGHAM 10/30/01 10:48 GR0728 - Cases - Fogger On.dat

General Electric Proprietary Information

IPS # 91014 - Afton Power Project

ESTIMATED PERFORMANCE PG7241(FA)

FOGGER OFF

		Guarantee Case																
Load Condition		BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Inlet Loss	in.H2O	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Exhaust Pressure Loss	in H2O	23	13.5	33.2	12.8	12.5	12.2	11.9	11.4	11	10.5	10.1	9.9	9.1	9.6	9.6	9.6	9.6
Ambient Temp.	Deg.F.	87	+10	0	10	20	30	40	50	60	70	80	90	90	100	110	110	110
Fuel Type		Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas	Dist Gas
Fuel LHV	Btu/lb	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491	20,491
Fuel Temperature	Deg F	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Output	kW	125,700.00	160,100.00	103,000.00	161,400.00	156,700.00	153,000.00	152,500.00	149,400.00	145,600.00	140,500.00	135,400.00	129,000.00	123,500.00	117,400.00			
Heat Rate (LHV)	Btu/kwh	9,540.00	9,260.00	9,245.00	9,260.00	9,265.00	9,290.00	9,320.00	9,370.00	9,435.00	9,520.00	9,620.00	9,740.00	12,895.00	10,060.00			
Heat Cons. (LHV)	MBtu/hr	1,230.00	1,534.00	1,514.30	1,495.00	1,470.40	1,440.30	1,424.00	1,399.80	1,373.70	1,338.50	1,302.50	1,265.20	1,725.00	1,183.40			
Exhaust Flow *10^3	lb/hr	2010	3405	3433	3380	3327	3272	3217	3156	3095	3025	2949	2869	2785	2693			
Exhaust Temp.	Deg.F.	1160	1042	1052	1042	1072	1083	1094	1105	1116	1126	1140	1151	1164	1176			
Exhaust Energy	MBtu/hr	763.5	963.9	991.5	883.3	870.7	864.7	852.3	840.1	827.6	810.9	793.6	776.4	767.9	739.3			
EMISSIONS																		
NOx	ppmvd @ 15% O2	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
NOx as NO2	lb/hr	43	58	55	56	54	53	52	51	50	49	48	46	45	43			
CO	ppmvd	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
CO	lb/hr	22	29	29	28	27	27	26	26	25	25	24	23	23	22			
UHC	ppmvw	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
UHC	lb/hr	11	14	13	13	13	13	13	12	12	12	12	11	11	11			
VOC	ppmvw	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
VOC	lb/hr	2.2	2.8	2.8	2.8	2.8	2.6	2.6	2.4	2.4	2.4	2.4	2.2	2.2	2.2			
Particulates (PM10 Front-half Filterable Only)	lb/hr	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
EXHAUST ANALYSIS % VOL.																		
Argon		0.84	0.8	0.8	0.8	0.89	0.8	0.8	0.81	0.83	0.86	0.9	0.89	0.89	0.88			
Nitrogen		74.73	73.24	73.22	73.7	73.16	73.14	73.09	73.02	74.03	74.01	74.04	74.42	74.13	73.78			
Oxygen		12.6	12.63	12.62	12.8	12.72	12.77	12.78	12.78	12.7	12.69	12.67	12.63	12.68	12.6			
Carbon Dioxide		3.74	3.76	3.77	3.77	3.77	3.78	3.78	3.78	3.77	3.76	3.77	3.75	3.74	3.72			
Water		6.89	7.28	7.3	7.13	7.37	7.42	7.45	7.67	7.7	7.84	8.04	8.31	8.67	9.14			
SITE CONDITIONS																		
Elevation	ft	4329																
Site Pressure	psia	12.67																
Exhaust Loss	in H2O	16.8 @ ISO Conditions																
Relative Humidity	%	20																
Application		Hydrogen-Cooled Generator																
Combustion System		DLN2.0+ Combustor																

Emission Inform, based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 w/out load rate correction and are not corrected to ISO reference condition per 40CFR60.335(c)(1).
NOx levels shown will be controlled by algorithms with the SPEEDTRONIC control system.

IPS= 91014 GR0728 Version Code= 3.0.4/27A/2.2.7/PG7241(FA)-1200
SINGHAM 10/30/01 10:04 GR0728 - Cases - Fogger OFF.xls

General Electric Proprietary Information

IPS # 91014 - Afton Power Project
ESTIMATED PERFORMANCE PG7241(FA)
FOGGER ON

		Guarantee Case													
Load Condition		BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Inlet Loss	in. H2O	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Exhaust Pressure Loss	in H2O	11.2	14.5	14.2	13.8	13.4	13.1	12.7	12.3	12.4	12.1	11.8	11.4	11	10.6
Ambient Temp.	Deg F.	97	-10	0	10	20	30	40	50	60	70	80	90	100	110
GE SPRITS System Status		On	Off	Off	Off	Off	Off	Off	Off	On	On	On	On	On	On
GE SPRITS System Effectiveness	%	85								85	85	85	85	85	85
Fuel Type		Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.
Fuel LHV	Btu/lb	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300
Fuel Temperature	Deg F	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Liquid Fuel H/C Ratio		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Output	kW	149,200.00	172,400.00	170,300.00	168,100.00	165,800.00	163,200.00	160,600.00	157,700.00	158,900.00	156,700.00	154,200.00	151,400.00	148,000.00	143,600.00
Heat Rate (LHV)	Btu/kWh	10,170.00	9,975.00	9,980.00	9,990.00	10,010.00	10,030.00	10,050.00	10,080.00	10,050.00	10,070.00	10,100.00	10,140.00	10,190.00	10,250.00
Heat Cons. (LHV)	MBtu/hr	1,517.40	1,719.70	1,699.60	1,679.30	1,659.70	1,636.90	1,614.00	1,589.60	1,596.90	1,578.00	1,557.40	1,535.20	1,508.10	1,471.90
Exhaust Flow x10^3	lb/hr	3114	3626	3573	3519	3466	3410	3354	3295	3313	3265	3213	3156	3094	3027
Exhaust Temp.	Deg F.	1118	1022	1032	1042	1052	1062	1073	1084	1080	1089	1099	1110	1121	1131
Exhaust Energy	MBtu/hr	850.5	950.3	938.1	925.9	914	901.3	889.5	876.8	884.1	875.6	866.3	857.2	846.6	833
Water Flow	lb/hr	100,560.00	120,520.00	120,100.00	119,580.00	118,920.00	118,080.00	117,070.00	115,800.00	111,720.00	109,430.00	106,670.00	103,320.00	99,000.00	93,270.00
EMISSIONS															
NOx	ppmvd @ 15% O2	42	42	42	42	42	42	42	42	42	42	42	42	42	42
NOx AS NO2	lb/hr	268	303	300	296	293	289	285	281	282	278	275	271	266	260
CO	ppmvd	20	20	20	20	20	20	20	20	20	20	20	20	20	20
CO	lb/hr	54	64	63	62	61	60	59	58	58	57	56	55	54	53
UHC	ppmvw	7	7	7	7	7	7	7	7	7	7	7	7	7	7
UHC	lb/hr	12	14	14	14	14	13	13	13	13	13	13	13	12	12
VOC	ppmvw	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
VOC	lb/hr	6	7	7	7	7	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6	6
Particulates (PM10 Front-half Filterable Only)	lb/hr	17	17	17	17	17	17	17	17	17	17	17	17	17	17
EXHAUST ANALYSIS % VOL.															
Argon		0.84	0.87	0.87	0.87	0.86	0.86	0.87	0.86	0.87	0.86	0.86	0.86	0.83	0.85
Nitrogen		70.53	72.06	72	71.94	71.87	71.8	71.71	71.62	71.32	71.15	70.95	70.72	70.45	70.16
Oxygen		10.95	11.52	11.48	11.45	11.41	11.37	11.33	11.28	11.22	11.16	11.09	11.01	10.94	10.88
Carbon Dioxide		5.62	5.41	5.43	5.44	5.46	5.47	5.48	5.5	5.48	5.49	5.5	5.52	5.52	5.5
Water		12.16	10.14	10.22	10.31	10.41	10.51	10.62	10.75	11.12	11.34	11.6	11.91	12.26	12.62

SITE CONDITIONS

Elevation	ft	4220
Site Pressure	psia	12.61
Exhaust Loss	in H2O	15.0 @ ISO Conditions
Relative Humidity	%	20
Application		Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission Info. based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 w/out heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1).
NOx levels shown will be controlled by algorithms w/in the SPEEDTRONIC control system.

Distillate Fuel is Assumed to have 0.015% Fuel-Bound Nitrogen, or less.
FBN Amounts Greater Than 0.015% Will Add to the Reported NOx Value.

IPS- 91014 GR0728 Version Code - 3.0.4/27A1/2.2.7/PG7241UF-1200
SINGHAM 10/30/01 11:03 GR0728 - Cases Distillate Fogger On.dat

General Electric Proprietary Information

IPS # 91014 - Afton Power Project
ESTIMATED PERFORMANCE PG7241(FA)
FOGGER OFF

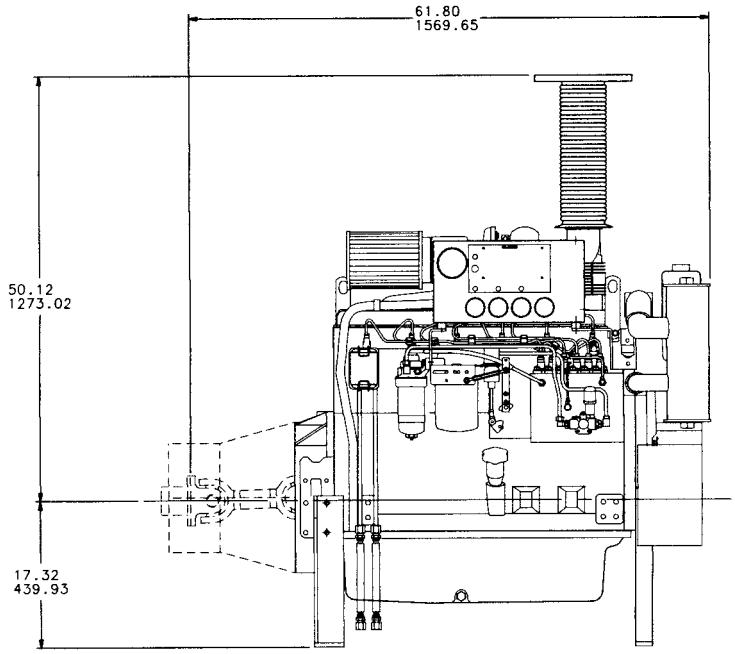
		Guarantee Case														
Load Condition		BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	
Inlet Loss	in. H2O	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Exhaust Pressure Loss	in H2O	10	14.5	14.2	13.8	13.4	13.1	12.7	12.3	11.9	11.4	10.9	10.4	9.9	9.2	
Ambient Temp.	Deg F.	97	-10	0	10	20	30	40	50	60	70	80	90	100	110	
Fuel Type		Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	
Fuel LHV	Btu/lb	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	18,300	
Fuel Temperature	Deg F	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
Liquid Fuel H/C Ratio		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	
Output	kW	138,000.00	172,400.00	170,300.00	168,100.00	165,900.00	163,200.00	160,500.00	157,700.00	154,900.00	150,700.00	145,800.00	140,100.00	134,100.00	127,300.00	
Heat Rate (LHV)	Btu/kWh	10,450.00	9,975.00	9,960.00	9,950.00	10,010.00	10,030.00	10,030.00	10,080.00	10,130.00	10,190.00	10,270.00	10,370.00	10,490.00	10,640.00	
Heat Cons. (LHV)	MBtu/hr	1,421.20	1,719.70	1,696.30	1,672.30	1,659.70	1,636.90	1,614.00	1,590.00	1,555.10	1,535.60	1,497.40	1,452.80	1,406.70	1,354.50	
Exhaust Flow x1000	lb/hr	2824	3326	3373	3419	3400	3410	3354	3295	3228	3154	3073	2980	2896	2797	
Exhaust Temp.	Deg F.	1147	1022	1032	1042	1052	1052	1073	1084	1097	1111	1125	1137	1151	1165	
Exhaust Energy	MBtu/hr	801.3	960.3	968.1	975.9	974	991.3	989.5	979.8	968	959.4	934	914.8	894.9	874.1	
Water Flow	lb/hr	100,200.00	120,020.00	120,100.00	119,980.00	118,320.00	116,080.00	117,070.00	115,000.00	114,160.00	111,980.00	108,530.00	103,940.00	98,600.00	92,160.00	
EMISSIONS																
NOx	ppmvd @ 15% O2	42	42	42	42	42	42	42	42	42	42	42	42	42	42	
NOx AS NO2	lb/hr	251	303	300	296	293	289	285	281	276	271	264	257	249	239	
CO	ppmvd	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
CO	lb/hr	51	64	63	62	61	60	59	58	57	55	54	52	51	49	
UHC	ppmvw	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
UHC	lb/hr	12	14	14	14	14	13	13	13	13	12	12	12	11	11	
VOC	ppmvw	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
VOC	lb/hr	6	7	7	7	7	6.5	6.5	6.5	6.5	6	6	6	5.5	5.5	
Particulates (PM10 Front-half Filterable Only)	lb/hr	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
EXHAUST ANALYSIS % VOL.																
Argon		0.09	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
Nitrogen		70.94	72.06	72	71.94	71.87	71.8	71.71	71.62	71.5	71.35	71.21	71.07	70.88	70.66	
Oxygen		11.07	11.52	11.48	11.45	11.41	11.37	11.33	11.28	11.22	11.15	11.11	11.09	11.06	11.04	
Carbon Dioxide		5.62	5.41	5.43	5.44	5.46	5.47	5.48	5.5	5.52	5.54	5.54	5.53	5.51	5.49	
Water		11.02	10.14	10.22	10.31	10.41	10.51	10.62	10.75	10.91	11.11	11.28	11.47	11.7	11.96	
SITE CONDITIONS																
Elevation	ft	4220														
Site Pressure	psia	12.61														
Exhaust Loss	in H2O	15.0 @ ISO Conditions														
Relative Humidity	%	20														
Generator		Hydrogen-Cooled Generator														
Combustion System		9H2 DLN Combustor														

Emission info. based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 w/out heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(a)(1).
NOx levels shown will be controlled by algorithms w/in the SPEEDTRONIC control system.

Distillate Fuel is Assumed to have 0.015% Fuel-Bound Nitrogen, or less.
BN Amounts Greater Than 0.015% Will Add to the Reported NOx Value.

General Electric Proprietary Information

CLARKE FIRE PUMP DRIVERS



JDFP-06WA
OVERALL WIDTH
28.5 [724.0]

MODELS

JDFP-06WA JDFP-06WR

APPROVED RATINGS BHP/kw FM-UL-cUL†

JDFP MODEL	SPEED (RPM)			
	1470	*1760*	*2100*	*2350*
06WA	220 *164*	265 *198*	275 *205*	275 *205*
06WR	240 *179*	290 *216*	300 *224*	300 *224*

STANDARD EQUIPMENT

Air Cleaner — Direct Mounted, Washable, For Indoor Service Only
Alternator — Integral Regulator, 12V-DC, 40 Ampere, with Belt Guard
Exhaust Blankets — For Manifolds & Turbo
Exhaust Connection — SS Flex - 5" 125# Flange
Flywheel Housing — SAE #3
Fuel Connections — Flexible Supply & Return
Fuel Injection — Bosch Direct Injection
Fuel Filters — Primary & Secondary w/Priming Pump
Engine Heater — 230 Voltage (AC), 2500 Watts With Thermostat
Governor — Constant Speed
Heat Exchanger — NPTF Connections, Tube & Shell Type, Rated 60 PSI
Instrument Panel — English & Metric, Tachometer, Hourmeter, Water Temperature, Oil Pressure, Voltmeter (2)
Junction Box — Integral With Instrument Panel. For Customer Wiring (DC) To Engine Controller
Lube Oil Cooler — Engine Water Cooled, Plate Type
Lube Oil Filter — Full Flow w/By-Pass Valve
Lube Pump — Gear Driven, Gear Type
Manual Start Controls — On Instrument Panel
Overspeed Control — Electronic w/Reset & Test on Instrument Panel
Power Take Off — Flywheel For 11.5" SAE and 150 mm Driveshaft Flange
Raw Water Solenoid Operation — Automatic With Emergency Local Control
Run-Stop Control — On Instrument Panel With Control Position Warning Light.
Starter — One (1) 12V-DC Motor
Throttle Control — Tamper Proof
Water Pump — Gear Driven, Centrifugal Type

- - - - - Drive Shaft and Guard Not Part of Listed Engine.

UL LISTED 513Y c UL meets NFPA-20 Requirements FM approved 1333

SPECIFICATIONS

Item	JDFP Model	
	JDFP-06WA	JDFP-06WR
Number Of Cylinders	6	6
Aspiration	TA (Jacket Water Aftercooled)	TA (Raw Water Aftercooled)
Rotation*	Clockwise (CW)	Clockwise (CW)
Weight - lb. (kg)	2012 (4436)	2003 (4417)
Compression Ratio	16.5:1	15.7:1
Displacement - cu. in. (l)	496 (8.1)	496 (8.1)
Engine Type	4 Stroke Cycle - Inline	4 Stroke Cycle - Inline
Bore & Stroke - in. (mm)	4.56 in x 5.06 in (116 mm x 127 mm)	
Installation Drawing	D-495	
Wiring Diagrams	C07602	
Engine	John Deere 6081 Series	

Abbreviations: CW – Clockwise TA – Turbocharged & Aftercooled

*Rotation viewed from heat exchanger / front of engine. CCW Rotation is not available.

† ENGINE RATINGS BASELINES

Engines are rated at standard SAE conditions of 29.61 in. (7521 mm) Hg barometer and 77˚F (25˚C) inlet air temperature [approximates 300 ft. (91.4 m) above sea level] by the testing laboratory (*see SAE Standard J 1349*).

† A deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1000 ft. (305 m) altitude above 300 ft. (91.4 m).

A deduction of 1 percent from engine horsepower rating as corrected to standard SAE conditions shall be made for diesel engines for every 10˚F (5.6˚C) above 77˚F (25˚C) ambient temperature.

Note: Engines certified at any speed between 1470 & 2350 RPM.

CERTIFIED POWER AT ANY SPEED

Although FM-UL Certified BHP ratings are shown at specific speeds, Clarke engines can be applied at any intermediate speed. To determine the intermediate certified power, make a linear interpolation from the Clarke FM-UL certified power curve. Contact Clarke or your Pump OEM representative to obtain details.

CLARKE

Fire Protection Products

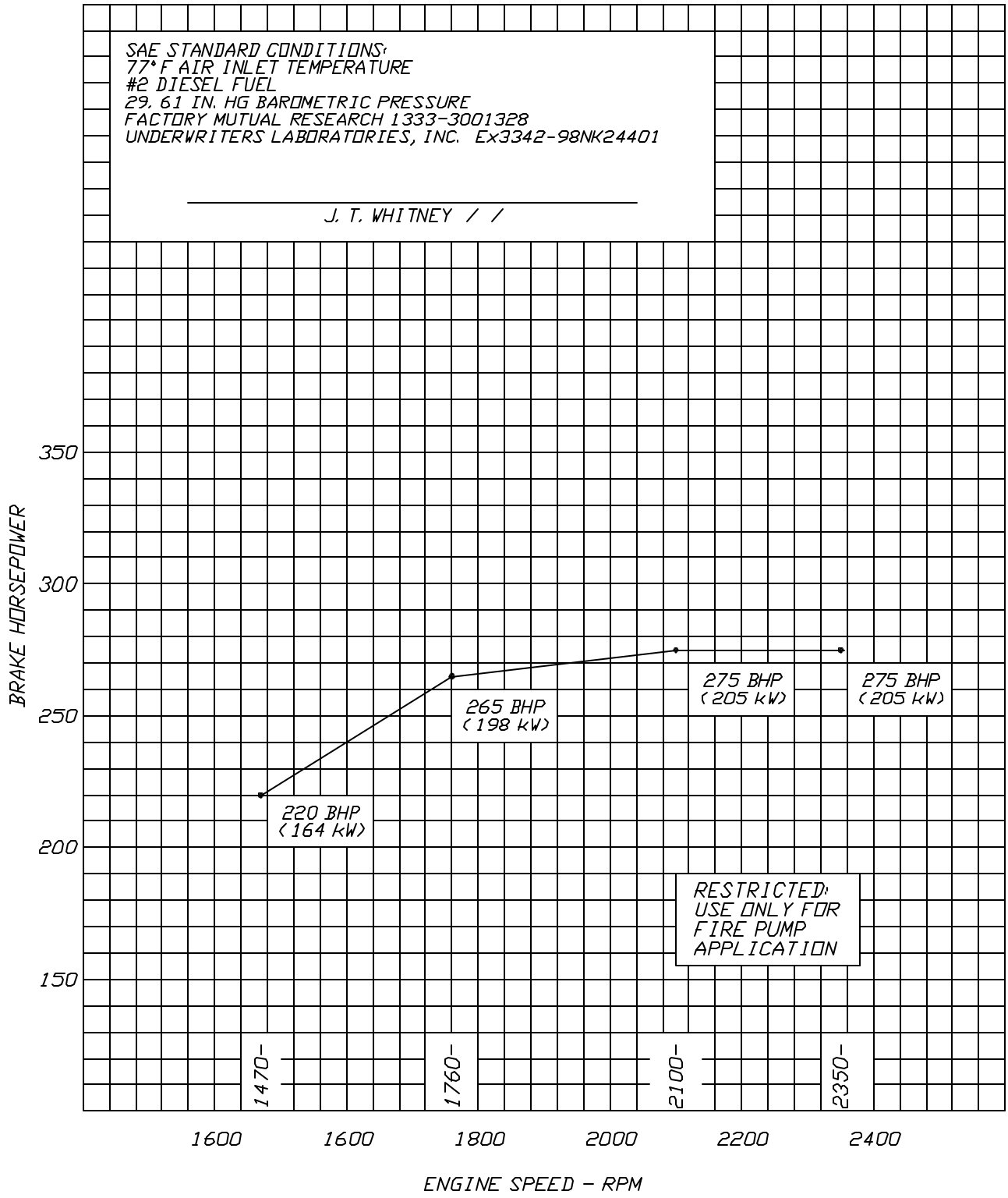
CLARKE USA
3133 E. Kemper Rd.
Cincinnati, Ohio 45241
United States of America
P 513-771-2200
F 513-771-0726

CLARKE UK
Grange Works, Lomond Rd.
Coatbridge, ML5-2NN
United Kingdom
P 44-1236-429946
F 44-1236-427274

(4/99)
Specifications and information contained in this brochure subject to change without notice. Printed in U.S.A.

CLARKE
DETROIT DIESEL-ALLISON

FIRE PUMP MODEL JDFP-06WA
HEAT EXCHANGER COOLED
RE502915 TURBOCHARGER
JACKET WATER CHARGE COOLING



CDDA-W064-01
6/10/99

ENGINEERING TECHNICAL DATA DEPT.

JDFP-06WA
INSTALLATION & OPERATION DATA

Basic Engine Description

Engine Manufacturer	John Deere Co.
Ignition Type	Compression (Diesel)
Number of Cylinders	6
Bore and Stroke - in.(mm)	4.56 (116) x 5.06 (129)
Displacement - $in.^3$ (L)	496 (8.1)
Compression Ratio	16.5:1
Valves per cylinder - Intake	1
Exhaust	1
Combustion System	Direct Injection
Engine Type	In-Line, 4 Stroke Cycle
Aspiration	Turbocharged
Firing Order (CW Rotation)	1-5-3-6-2-4
Charge Air Cooling Type	Jacket Water Cooled
Rotation (Viewed from Front) - Clockwise	Standard
Counter-Clockwise	Not Available
Engine Crankcase Vent System	Open
Installation Drawing	D-495

Cooling System

	1470	1760	2100	2350
Engine H_2O Heat -Btu/sec.(kW)	104 (110)	112 (118)	117 (123)	113 (119)
Engine Radiated Heat - Btu/sec.(kW)	24 (25)	28 (30)	29 (31)	29 (31)
Heat Exchanger Minimum Flow				
60°F (15°C) Raw H_2O - gal/min. (L/min.)	11 (42)	14 (53)	16 (61)	21 (79)
95°F (35°C) Raw H_2O - gal/min. (L/min.)	18 (68)	22 (83)	25 (95)	31 (117)

Heat Exchanger Maximum Cooling H_2O	
Inlet Pressure - $lb./in.^2$ (kPa)	60 (414)
Flow - gal./min (L/min.)	80 (302)
Thermostat, Start to Open - °F (°C)	180 (82)
Fully Opened - °F (°C)	202 (94)
Engine Coolant Capacity - qt. (L)	22 (21)
Coolant Pressure Cap - $lb./in.^2$(kPa)	10 (69)
Maximum Engine H_20 Temperature - °F (°C)	200 (93)
Minimum Engine H_20 Temperature - °F (°C)	160 (71)

Electric System - DC

System Voltage (Nominal)	12
Battery Capacity for Ambients Above 32°F (0°C)	
Voltage (Nominal)	12
Qty. per Battery Bank	1
SAE size per J537	8D-900
CCA @ 0°F (-18°C)	900
Reserve Capacity - Minutes	430
Battery Cable Circuit*, Max Resistance - ohm	0.0017
Battery Cable Minimum Size	
0 -120 in. Circuit* Length	00
121 - 160 in. Circuit* Length	000
161 - 200 in. Circuit* Length	0000
Charging Alternator Output - Amp	40
Starter Cranking Amps - @ 60°F (15°C)	495

**Positive and Negative Cables Combined Length*

NOTE: This engine is Intendend For Indoor Installation Or In A Weatherproof Enclosure.

(Continued)

JDFP-06WA
INSTALLATION & OPERATION DATA (Continued)

Exhaust System	**1470**	**1760**	**2100**	**2350**
Exhaust Flow - $ft.^3$/min. (m^3/min.)	1107 (31)	1404 (40)	1644 (47)	1908 (54)
Exhaust Temperature - °F (°C)	990 (518)	840 (435)	750 (385)	737 (392)
Maximum Allowable Back Pressure - in. H_20 (kPa)	19 (4.7)	26 (6.6)	28 (7.1)	30 (7.5)
Minimum Exhaust Pipe Dia. - in. (mm)**	5.0 (127)	5.0 (127)	5.0 (127)	5.0 (127)

Fuel System				
Fuel Consumption - gal./hr. (L/hr.)	13 (49)	14 (53)	15 (58)	16 (61)
Fuel Return - gal./hr. (L/hr)	63 (238)	62 (235)	61 (231)	60 (227)
Total Supply Fuel Flow - gal./hr (L/hr.)	76 (288)	76 (288)	76 (288)	76 (288)
Fuel Pressure - lb./$in.^2$ (kPa)	25-35 (172-241)			
Minimum Line Size - Supply - in. (mm)**	.50 Sch. 40 - Black			
Minimum Line Size - Return - in. (mm)**	.37 Sch. 40 - Black			
Maximum Allowable Fuel Pump Suction				
With Clean Filter - in. H_20 (mH_20)	31 (0.8)			
Maximum Allowable Fuel Head above Fuel pump, Supply or Retrun - ft(m)..	9 (2.7)			
Fuel Filter Micron Size	8			

Heater System	
Jacket Water Heater	Standard
Wattage (Nominal)	2500
Voltage - AC, 1P	230 (+5%, -10%)
Optional Voltage - AC, 1P	115 (+5%, -10%)
Lube Oil Heater Wattage	
(Required Option When Ambient is Below 40°F (4°C)	150

Induction Air System				
Air Cleaner Type	Indoors Service Only - Washable			
Air Intake Restriction Maximum Limit				
Dirty Air Cleaner - in. H_20 (kPa)	13 (3.2)	14 (3.5)	15 (3.7)	16 (4.0)
Clean Air Cleaner - in. H_20 (kPa)	3 (0.7)	4 (1.0)	5 (1.2)	6 (1.5)
Engine Air Flow - $ft.^3$/min. (m^3/min.)	410 (12)	580 (16)	730 (21)	856 (24)
Maximum Allowable Temperature (Air To Engine Inlet) - °F (°C)***	130 (54)			

Lubrication System	
Oil Pressure - normal - lb./$in.^2$ (kPa)	30-55 (207-379)
In Pan Oil Temperature - °F (°C)	190-220 (88-104)
Oil Pan Capacity - High - qt. (L)	32 (30)
Total Oil Capacity with Filter - qt. (L)	34 (32)

Performance				
BMEP - lb./$in.^2$ (kPa)	239 (1648)	240 (1655)	209 (1441)	187 (1289)
Piston Speed - ft./min. (m/min.)	1240 (378)	1484 (452)	1771 (540)	1982 (604)
Sound Pressure Level - dB(A) @ 1m				
Power Curve	CDDA - W064 - 01			

*** Based On Nominal System. Flow Analysis Must Be Done To Assure Adherance To System Limitations. (Minimum Exhaust pipe Diameter is based on 15 feet of pipe, one elbow, and a silencer pressure drop no greter than one half the max. allowable back pressure.)*

**** Review For Power Deration If Air Entering Engine Exceeds °77F (25°C)*

NOTE: This engine is Intendend For Indoor Installation Or In A Weatherproof Enclosure.

(Continued)

JDFP-06WA

FIRE PUMP DRIVER

EMISSION DATA

To complete an application for a Permit to Operate, the following data is provided.

6 *Cylinders*
Four *Cycle*
Lean *Burn*
Turbocharged & Aftercooled
Diesel Oil - *Fuel*
No - *Energy Recovery from Exhaust*
No - *Emission Control Device*

		FUEL	AIR/FUEL	G / HP / HR					%	EXHAUST		TIMING
RPM	BHP	GAL / HR	RATIO	HC	NOx	CO	SO_2	PART.	0_2	°F	CFM	DEGREES*
2100	275	14.8	31.76	0.28	6.0	0.28	0.60	0.08	10.7	750	1644	9.3
1760	265	14.2	26.31	0.23	6.7	0.29	0.67	0.07	9.5	840	1404	9.3
1470	220	13.2	20.01	0.32	6.7	0.29	0.73	0.07	5.8	990	1107	9.3

For specific RPM & BHP ratings, some of the above data may have been extrapolated from the best available test data.

Sulfur Dioxide based on 0.2% sulfur content in fuel (by weight).

**Degrees of Timing RETARD for 'Beginning of Injection' based on comparison with pre-emission controlled engines.*

6081A Base Model Engine Manufactured by John Deere Co.

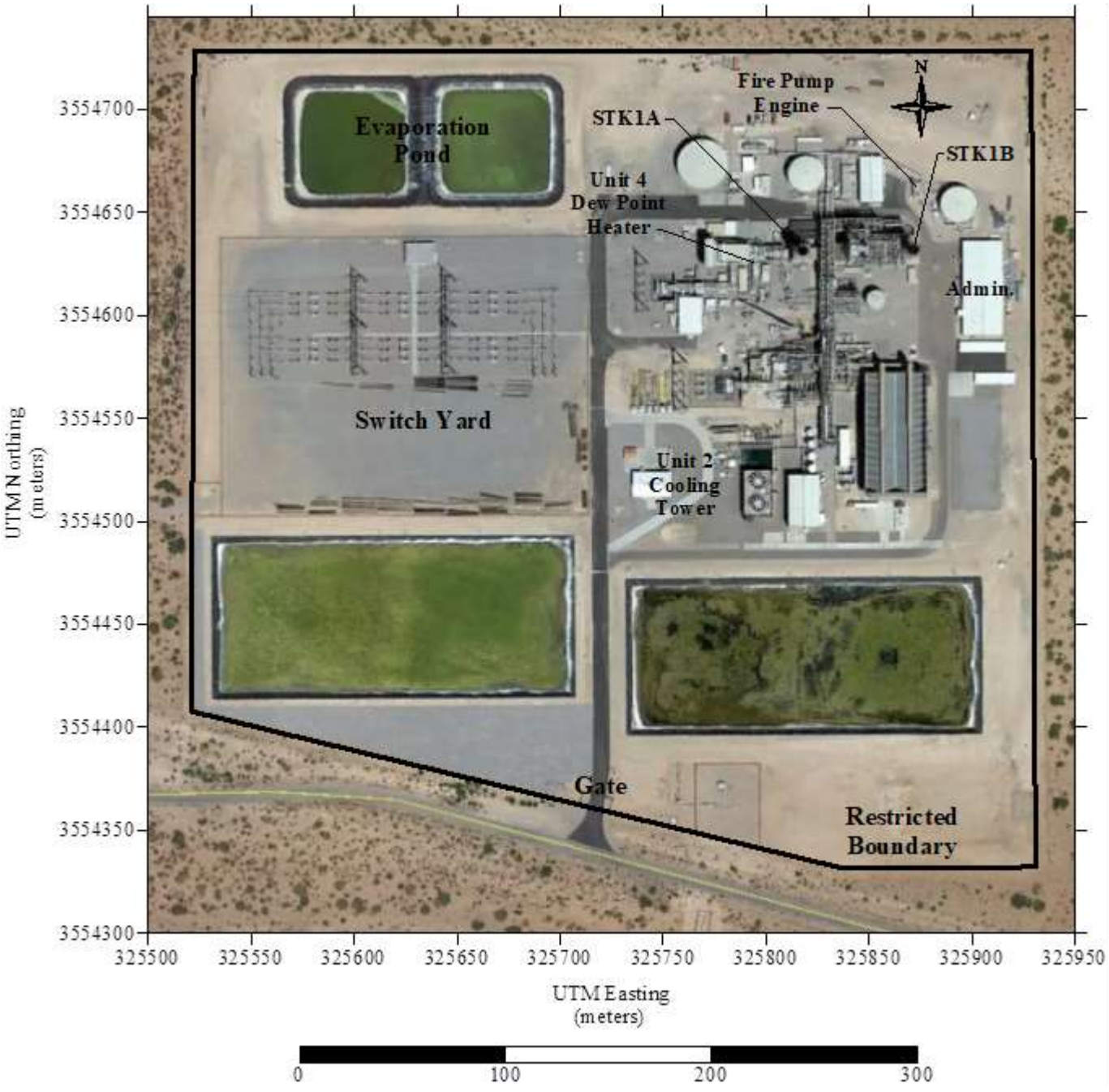
CLARKE
FIRE PROTECTION PRODUCTS
3133 EAST KEMPER ROAD
CINCINNATI, OH 45241

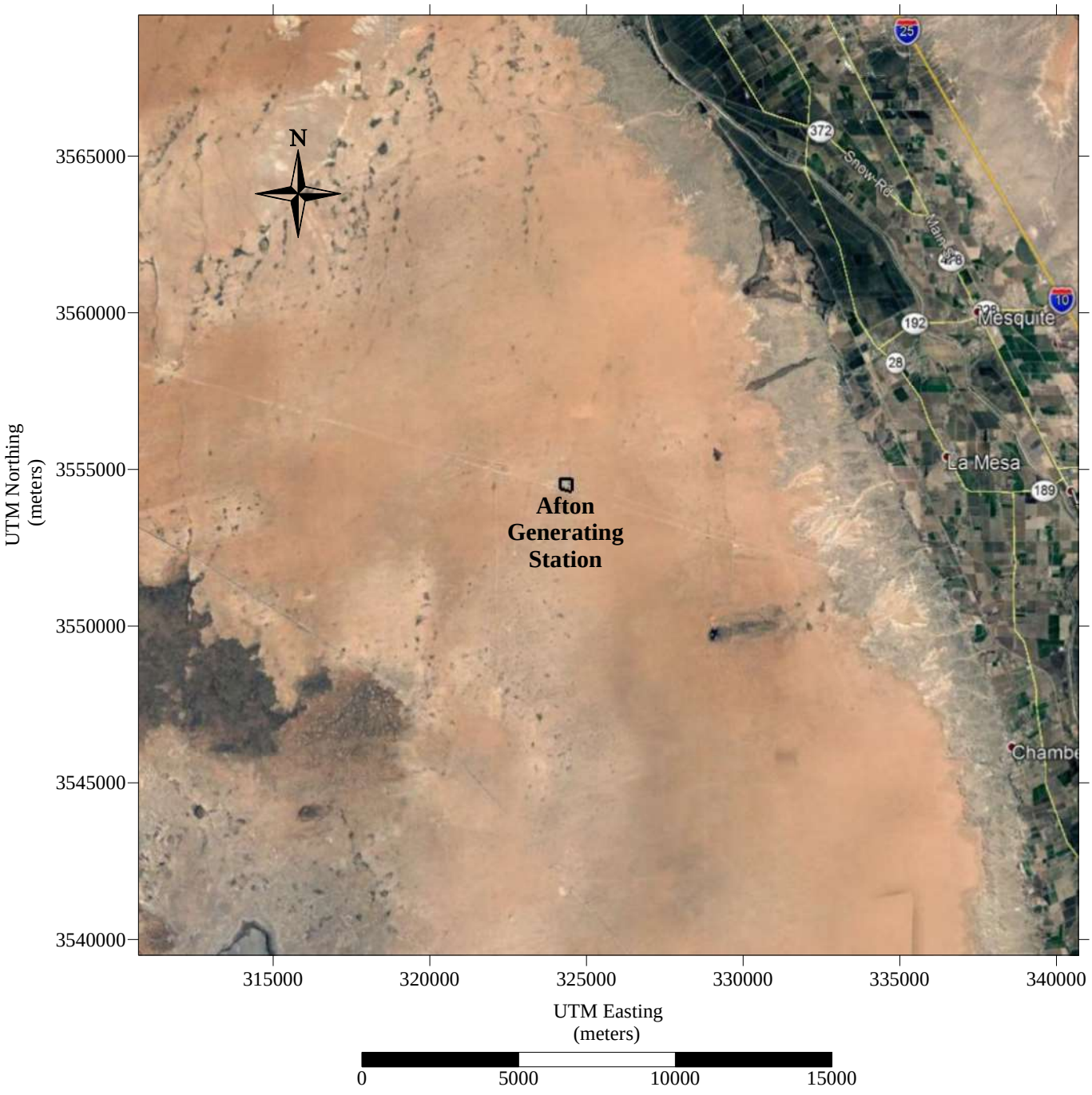
Section 8

Map(s)

A map such as a 7.5-minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

The UTM or Longitudinal coordinate system on both axes	An indicator showing which direction is north
A minimum radius around the plant of 0.8km (0.5 miles)	Access and haul roads
Topographic features of the area	Facility property boundaries
The name of the map	The area which will be restricted to public access
A graphical scale	




N
Afton
Generating
Station
Mesquite
La Mesa
Snow Rd
Main St
25
372
478
10
192
28
189
3565000
3560000
3555000
3550000
3545000
3540000
UTM Northing
(meters)
315000
320000
325000
330000
335000
340000
UTM Easting
(meters)
0
5000
10000
15000

Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)
(This proof is required by: 20.2.72.203.A.14 NMAC "Documentary Proof of applicant's public notice")

☐ **I have read the AQB "Guidelines for Public Notification for Air Quality Permit Applications"**
This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant's Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

New Permit and **Significant Permit Revision** public notices must include all items in this list.

Technical Revision public notices require only items 1, 5, 9, and 10.

Per the Guidelines for Public Notification document mentioned above, include:

1. ☐ A copy of the certified letter receipts with post marks (20.2.72.203.B NMAC)
2. ☐ A list of the places where the public notice has been posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance. (e.g: post office, library, grocery, etc.)
3. ☐ A copy of the property tax record (20.2.72.203.B NMAC).
4. ☐ A sample of the letters sent to the owners of record.
5. ☐ A sample of the letters sent to counties, municipalities, and Indian tribes.
6. ☐ A sample of the public notice posted and a verification of the local postings.
7. ☐ A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
8. ☐ A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
9. ☐ A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
10. ☐ A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
11. ☐ A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.

NA – not required for Title V applications.

Section 10

Written Description of the Routine Operations of the Facility

---

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

Basic Operations

The Afton Generating Station (AGS) consists of a single unit GE Frame 7FA combustion turbine. The facility includes a HRSG (heat recovery steam generation) unit that allows recovery of heat energy from the hot turbine exhaust gases that would otherwise be lost. Heat recovered in the HRSG is used to produce steam to drive a steam turbine which generates electricity in addition to that generated directly from the combustion turbine. The facility also includes a duct burner. The duct burner can provide additional energy to the HRSG system to respond to peak power demand conditions. The most common operational mode at AGS is combined cycle, either with or without duct burner operation. Natural gas is the primary fuel. The current permits (NSR and Title V) allow use of fuel oil (200 hours per year of operation) during emergency conditions and for testing.

As described in Section 3, AGS has four different operating scenarios:

Scenario 1 is natural gas fired simple cycle (SC) operation;

Scenario 2 is combined cycle (CC) operation without the duct burner in operation;

Scenario 3 is CC operation with the duct burner. Duct burner operation is limited to 1,920 hours per year;

Scenario 4 is SC operation with fuel oil as the fuel source. Oil fired operation is limited to 200 hours per year.

The combustion turbine has nominal electrical generating capacity of approximately 152 megawatts at average site conditions. Depending on ambient temperature and based on burning natural gas, actual turbine generating capacity will vary from 164 MW at 0 ºF ambient to 135 MW at 110 ºF ambient.

The AGS can be used for either base-load (continuous operation) or for supplying "peaking" power. When supplying peaking power, the facility starts up to supply power during peak demand periods and shuts down when demand drops. AGS's recent operations have been primarily to supply "peaking" power and therefore AGS has had frequent (often daily) startup and shutdowns.

The inlet air and fuel mixture is combusted in the turbine. The manufacturer establishes the turbine operating conditions. Turbine design and operating procedures insure the formation and emissions of NO_X and CO are kept to a minimum. The Frame 7 FA turbine is a dry low-NOx (DLN) design that limits NOx formation through turbine design and does not use water injection.

Fuel consumption, power output and mass emission rates are dependent to some extent on the operating environment factors. The most important environmental factor is the ambient temperature. Annual average operations are well represented by the annual average site temperature (60 ºF), which does not vary significantly from year to year. Short-term temperature extremes do influence the short-term maximum emission rates, power generation rate and fuel consumption rate. This factor has been included in the calculation of reasonable worst-case emission scenarios used in the NSR permitting process.

When operated in the combined cycle mode, a heat exchanger system is used to recover heat from the combustion turbine exhaust gases. This heat is used to generate steam. This steam is sent to a steam turbine/electric generator, which produces electrical power in addition to the power produced by the combustion turbine generator. This system is referred to as the HRSG (heat recovery steam generation) unit. A cooling tower is used to condense the spent steam from the steam turbine is condensed to liquid water for recycle through the system.

The AGS HRSG system includes duct burning. The duct burner allows additional thermal energy to be added to the HRSG system by combustion of natural gas fuel in the combustion turbine exhaust duct that supplies heat to the HRSG unit.

The AGS facility includes a water treatment system for treating water circulated in the HRSG-steam turbine loop.

Control Equipment

The GE Frame 7 FA turbine is an inherently low emitting turbine design. Formation of CO, NMVOC, and particulate emissions are prevented by the turbine design and good combustion practices. Formation of NOx is prevented through the dry low-NOx design; water injection is not used. Sulfur dioxide emissions are prevented by use of low sulfur fuels. Natural gas, the primary fuel, contains only trace amounts of sulfur. Any fuel oil used at the AGS will have a sulfur content of 0.05 percent or less. No additional add-on controls are required during simple cycle operation. Particulate emissions are minimized through use of natural gas as the primary fuel. VOC emissions are minimized through the inherent efficiency of the turbine design and through application of good combustion practices. During combined cycle operation, a Selective Catalytic Reduction (SCR) unit is used to control NOx emissions. The SCR unit cannot be used during simple cycle operation because of the high exhaust stack temperature.

During periods of peak electrical demand, additional fuel (natural gas) combustion may occur (up to 1,920 hours per year) in the duct burner when the facility is operating in combined cycle mode. Duct burner emissions are minimized through use of natural gas fuel and the limit on operating hours. Duct burner emissions exhaust through the same stack as combustion turbine emissions. NOx and CO emissions from the duct burner will be monitored by the CEMS system.

During combined cycle operation, a wet-dry hybrid cooling tower is used to reject heat from the HRSG steam condensation system. Potential emissions from the cooling tower consist of dissolved solids that may be become airborne in the water droplet drift from the cooling tower. Cooling tower drift is minimized through low-drift cooling tower design.

The SCR unit used to control NOx during combined cycle operation will be a source of ammonia emissions in the form of "ammonia slip". Ammonia is injected into the SCR system to react with NOx formed by the combustion process. A small amount of excess ammonia is needed to insure the reaction is as efficient as possible to control NOx. This excess, unreacted ammonia is called "ammonia slip". The Afton NSR permit limits ammonia slip. Ammonia slip is minimized through inspection and maintenance of the ammonia injection system and weekly ammonia consumption is monitored and recorded.

The dew point heater is a small source of combustion emissions. Emissions are minimized through use of natural gas fuel and through good combustion practices.

Facility Bottleneck

Facility production is primarily limited by the design of the combustion turbine. The combustion turbine is a sophisticated device in which all the components have been specifically designed to optimize turbine operation. No one turbine component can be considered a “bottleneck”. The duct burner can operate somewhat independently of the turbine (as long as the turbine is running at high enough load to make use of the HRSG). The capacity of the duct burner is limited by the maximum fuel rate, limited by design and size of the unit, that the duct burner can accommodate.

Waste Products

The AGS has a water treatment system to treat water used to produce steam for the steam turbine. After passing through the steam turbine, the steam will be condensed to liquid water for recycling. A wet-dry hybrid cooling tower system is used to condense the steam. Both the steam water treatment process and the cooling tower produce blowdown. Blowdown is sent to an on-site evaporation pond.
The facility may generate small amounts of used oil waste and possibly small amounts of waste solvents or cleaning solutions used for routine maintenance. All oil/solvent waste is collected and sent off-site for EPA certified disposal.

The facility has an on-site septic system for sanitary waste disposal/treatment.

Section 11
Source Determination

Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe)**:**

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

X Yes **☐ No**

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

X Yes **☐ No**

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

X Yes **☐ No**

C. Make a determination:

☐ The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "**YES**" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "**NO**" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

☐ The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Section 12

Section 12.A
PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

A PSD applicability determination for all sources. For sources applying for a significant permit revision, apply the applicable requirements of 20.2.74.AG and 20.2.74.200 NMAC and to determine whether this facility is a major or minor PSD source, and whether this modification is a major or a minor PSD modification. It may be helpful to refer to the procedures for Determining the Net Emissions Change at a Source as specified by Table A-5 (Page A.45) of the EPA New Source Review Workshop Manual to determine if the revision is subject to PSD review.

A. This facility is:

- ☐ **a minor PSD source before and after this modification (if so, delete C and D below).**
- ☐ **a major PSD source before this modification. This modification will make this a PSD minor source.**
- X **an existing PSD Major Source that has never had a major modification requiring a BACT analysis.**
- ☐ **an existing PSD Major Source that has had a major modification requiring a BACT analysis**
- ☐ **a new PSD Major Source after this modification.**

This application is for an Operating Permit Renewal. No modifications of the facility are proposed.

Section 13

Determination of State & Federal Air Quality Regulations

This section lists each state and federal air quality regulation that may apply to your facility and/or equipment that are stationary sources of regulated air pollutants.

Not all state and federal air quality regulations are included in this list. Go to the Code of Federal Regulations (CFR) or to the Air Quality Bureau's regulation page to see the full set of air quality regulations.

Required Information for Specific Equipment:
For regulations that apply to specific source types, in the 'Justification' column **provide any information needed to determine if the regulation does or does not apply**. **For example**, to determine if emissions standards at 40 CFR 60, Subpart IIII apply to your three identical stationary engines, we need to know the construction date as defined in that regulation; the manufacturer date; the date of reconstruction or modification, if any; if they are or are not fire pump engines; if they are or are not emergency engines as defined in that regulation; their site ratings; and the cylinder displacement.

Required Information for Regulations that Apply to the Entire Facility:
See instructions in the 'Justification' column for the information that is needed to determine if an 'Entire Facility' type of regulation applies (e.g. 20.2.70 or 20.2.73 NMAC).

Regulatory Citations for Regulations That Do Not, but Could Apply:
If there is a state or federal air quality regulation that does not apply, but you have a piece of equipment in a source category for which a regulation has been promulgated, you must **provide the low level regulatory citation showing why your piece of equipment is not subject to or exempt from the regulation. For example** if you have a stationary internal combustion engine that is not subject to 40 CFR 63, Subpart ZZZZ because it is an existing 2 stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, your citation would be 40 CFR 63.6590(b)(3)(i). **We don't want a discussion of every non-applicable regulation, but if it is possible a regulation could apply, explain why it does not. For example,** if your facility is a power plant, you do not need to include a citation to show that 40 CFR 60, Subpart OOO does not apply to your non-existent rock crusher.

Regulatory Citations for Emission Standards:
For each unit that is subject to an emission standard in a source specific regulation, such as 40 CFR 60, Subpart OOO or 40 CFR 63, Subpart HH, include the low level regulatory citation of that emission standard. Emission standards can be numerical emission limits, work practice standards, or other requirements such as maintenance. **Here are examples:** a glycol dehydrator is subject to the general standards at 63.764C(1)(i) through (iii); an engine is subject to 63.6601, Tables 2a and 2b; a crusher is subject to 60.672(b), Table 3 and all transfer points are subject to 60.672(e)(1)

Federally Enforceable Conditions:
All federal regulations are federally enforceable. All Air Quality Bureau State regulations are federally enforceable except for the following: affirmative defense portions at 20.2.7.6.B, 20.2.7.110(B)(15), 20.2.7.11 through 20.2.7.113, 20.2.7.115, and 20.2.7.116; 20.2.37; 20.2.42; 20.2.43; 20.2.62; 20.2.63; 20.2.86; 20.2.89; and 20.2.90 NMAC. Federally enforceable means that EPA can enforce the regulation as well as the Air Quality Bureau and federally enforceable regulations can count toward determining a facility's potential to emit (PTE) for the Title V, PSD, and nonattainment permit regulations.

INCLUDE ANY OTHER INFORMATION NEEDED TO COMPLETE AN APPLICABILITY DETERMINATION OR THAT IS RELEVENT TO YOUR FACILITY'S NOTICE OF INTENT OR PERMIT.

EPA Applicability Determination Index for 40 CFR 60, 61, 63, etc: http://cfpub.epa.gov/adi/

Table for STATE REGULATIONS:

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	YES	Facility and All Units	20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. Title V applications, see exemption at 20.2.3.9 NMAC
20.2.7 NMAC	Excess Emissions	YES	Facility and All Units	All Title V major sources are subject to Air Quality Control Regulations, as defined in 20.2.7 NMAC, and are thus subject to the requirements of this regulation. Also listed as applicable in NSR Permit 2466M4R1.
20.2.61.109 NMAC	Smoke & Visible Emissions	YES	1,4,7	Engines and heaters are Stationary Combustion Equipment
20.2.70 NMAC	Operating Permits	YES	Facility	Source is major for NOx and CO.
20.2.71 NMAC	Operating Permit Fees			Yes, this facility is subject to 20.2.70 NMAC and is in turn subject to 20.2.71 NMAC.
20.2.72 NMAC	Construction Permits	YES	Facility	This facility is subject to 20.2.72 NMAC and NSR Permit number: 2466M4R1
20.2.73 NMAC	NOI & Emissions Inventory Requirements	YES	Facility	**NOI:** 20.2.73.200 NMAC applies (requiring a NOI application) **Emissions Inventory Reporting:** 20.2.73.300 NMAC applies. All Title V major sources meet the applicability requirements of 20.2.73.300 NMAC.
20.2.74 NMAC	Permits - PSD	YES	Facility	This facility is PSD major as defined by: **(1)** Any stationary source listed in Table 1 of this Part (20.2.74.501 NMAC) which emits, or has the potential to emit, emissions equal to or greater than one hundred (100) tons per year of any regulated pollutant.
20.2.75 NMAC	Construction Permit Fees	NO	NA	Not Applicable because facility is subject to 20.2.71NMAC.
20.2.77 NMAC	New Source Performance	YES	1,7	This is a stationary source which is subject to the requirements of 40 CFR Part 60, as amended through November 30, 2006.
20.2.78 NMAC	Emissions Standards for HAPS	NO	NA	This facility does not emit hazardous air pollutants which are subject to the requirements of 40 CFR Part 61, as amended through November 30, 2006.
20.2.84	Acid Rain Permit	YES	1,7	AGS is an Acid Rain source per 40CFR72, Subpart A

Table for Applicable FEDERAL REGULATIONS (Note: This is not an exhaustive list):

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 50	NAAQS	YES	Facility	Defined as applicable at 20.2.70.7.E.11. Any national ambient air quality standard
NSPS 40 CFR 60, Subpart A	General Provisions	YES	1,7	Applies if any other NSPS subpart applies.
NSPS 40 CFR60.40a, Subpart Da	Subpart Da, Performance Standards for Electric Utility Steam Generating Units	YES	7	Establishes PM, SO_2 and NOx emission limits/standards of performance for Unit **7**. The duct burner (unit #7) has a **505** MMBtu/hr heat input, which exceeds the 250 MMBtu/hr threshold. Construction commenced after the 9/18/1978 applicability date.
NSPS 40 CFR 60.330 Subpart GG	Stationary Gas Turbines	YES	1	Unit 1 has a heat input = 1379MM Btu/hour which is greater than the 10 MMBtu/hour threshold. This unit was installed on 1/22/2002 which is after the October 3, 1977 applicability date.
NESHAPS 40CFR63 Subpart ZZZZ	Internal Combustion Engines	YES	8	Unit 8 is a 265 hp emergency fire pump. It is subject to limited provisions of Subpart ZZZZ requiring annual maintenance of the engine.
40CFR64	Compliance Assurance Monitoring	YES	1,7	Applies to NOx emissions from turbine and duct burner (Stk1B) during combined cycle operations as a control device (SCR Unit) is used to achieve compliance with combined cycle emission limits. No control devices are used for other pollutants during combined cycle operation and no control devices are used during simple cycle operation.
Title IV – Acid Rain 40 CFR 72	Acid Rain	YES	Facility and Unit 1	Unit 1 is an affected facility under 40CFR72. AGS has an Acid Rain Permit
Title IV – Acid Rain 40 CFR 73	Sulfur Dioxide Allowance Emissions	YES	Facility	Per facility acid rain permit, AGS must hold sufficient SO2 annual allowances.
40 CFR 75	Acid Rain Continuous Emission Monitoring	YES	1	Unit 1 must have a CEMS for NOx and O_2.
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	NA	NA	Not Applicable –facility does not "service", "maintain" or "repair" class I or class II appliances nor "disposes" of the appliances. Note: Disposal definition in 82.152: Disposal means the process leading to and including: (1) The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water; (2) The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water; or (3) The disassembly of any appliance for reuse of its component parts. "Major maintenance, service, or repair means" any maintenance, service, or repair that involves the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of "flow area" for more than 15 minutes.

Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

X Title V Sources (20.2.70 NMAC)**:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

X NSR (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☐ **Title V** (20.2.70 NMAC)**, NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

Construction Scenarios: When a permit is modified authorizing new construction to an existing facility, NMED includes a condition to clearly address which permit condition(s) (from the previous permit and the new permit) govern during the interval between the date of issuance of the modification permit and the completion of construction of the modification(s). There are many possible variables that need to be addressed such as: Is simultaneous operation of the old and new units permitted and, if so for example, for how long and under what restraints? In general, these types of requirements will be addressed in Section A100 of the permit, but additional requirements may be added elsewhere. Look in A100 of our NSR and/or TV permit template for sample language dealing with these requirements. Find these permit templates at: https://www.env.nm.gov/aqb/permit/aqb_pol.html. Compliance with standards must be maintained during construction, which should not usually be a problem unless simultaneous operation of old and new equipment is requested.

In this section, under the bolded title "Construction Scenarios", specify any information necessary to write these conditions, such as: conservative-realistic estimated time for completion of construction of the various units, whether simultaneous operation of old and new units is being requested (and, if so, modeled), whether the old units will be removed or decommissioned, any PSD ramifications, any temporary limits requested during phased construction, whether any increase in emissions is being requested as SSM emissions or will instead be handled as a separate Construction Scenario (with corresponding emission limits and conditions, etc.

The Afton Generating Station has four operating scenarios as outlined below:

- Simple Cycle, Natural Gas Fired Operation: In this scenario the facility is operated only in simple cycle mode and with natural gas fuel. During simple cycle mode Emission Unit 1 (Combustion Turbine) and Emission Unit 4 (Dew Point Heater) operate. The other units (duct burner, cooling tower and HRSG/SCR) do not operate in this mode. Combustion turbine emissions exit stack 1A in this mode.
- Combined Cycle, Natural Gas Fired, without Duct Burner: In this scenario the facility operates in the combined cycle mode but without supplementary firing of the duct burner. During this operating mode Emission Unit 1 (Combustion Turbine), Emission Unit 2 (Cooling Tower) and Emission Unit 4 (Dew Point Heater) operate. Emission Unit 7 (duct burner) does not operate. Combustion turbine emissions exit stack 1B in this mode.
- Combined Cycle, Natural Gas Fired, with Duct Burner: In this scenario the facility operates in the combined cycle mode but without supplementary firing of the duct burner. During this operating mode Emission Unit 1 (Combustion Turbine), Emission Unit 2 (Cooling Tower) and Emission Unit 4 (Dew Point Heater) and Emission Unit 7 (duct burner) operate. This operational scenario is limited to 1,920 hours per year. Combustion turbine and duct burner emissions exit stack 1B in this mode.
- Oil Fired Operation: Oil fired operation is limited to 200 hours per year. The facility would be in simple cycle mode during oil-fired operation.

Section 16

Air Dispersion Modeling

1) Minor Source Construction (20.2.72 NMAC) and Prevention of Significant Deterioration (PSD) (20.2.74 NMAC) ambient impact analysis (modeling): Provide an ambient impact analysis as required at 20.2.72.203.A(4) and/or 20.2.74.303 NMAC and as outlined in the Air Quality Bureau's Dispersion Modeling Guidelines found on the Planning Section's modeling website. If air dispersion modeling has been waived for one or more pollutants, attach the AQB Modeling Section modeling waiver approval documentation.
2) SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions during routine or predictable startup, shutdown, or maintenance (SSM) using realistic worst case scenarios following guidance from the Air Quality Bureau's dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.
3) Title V (20.2.70 NMAC) ambient impact analysis: Title V applications must specify the construction permit and/or Title V Permit number(s) for which air quality dispersion modeling was last approved. Facilities that have only a Title V permit, such as landfills and air curtain incinerators, are subject to the same modeling required for preconstruction permits required by 20.2.72 and 20.2.74 NMAC.

What is the purpose of this application?	Enter an X for each purpose that applies
New PSD major source or PSD major modification (20.2.74 NMAC). See #1 above.	
New Minor Source or significant permit revision under 20.2.72 NMAC (20.2.72.219.D NMAC). See #1 above. **Note:** Neither modeling nor a modeling waiver is required for VOC emissions.	
Reporting existing pollutants that were not previously reported.	
Reporting existing pollutants where the ambient impact is being addressed for the first time.	
Title V application (new, renewal, significant, or minor modification. 20.2.70 NMAC). See #3 above.	X
Relocation (20.2.72.202.B.4 or 72.202.D.3.c NMAC)	
Minor Source Technical Permit Revision 20.2.72.219.B.1.d.vi NMAC for like-kind unit replacements.	
Other: i.e. SSM modeling. See #2 above.	
This application does not require modeling since this is a No Permit Required (NPR) application.	
This application does not require modeling since this is a Notice of Intent (NOI) application (20.2.73 NMAC).	
This application does not require modeling according to 20.2.70.7.E(11), 20.2.72.203.A(4), 20.2.74.303, 20.2.79.109.D NMAC and in accordance with the Air Quality Bureau's Modeling Guidelines.	

Check each box that applies:

☐ See attached, approved modeling **waiver for all** pollutants from the facility.

☐ See attached, approved modeling **waiver for some** pollutants from the facility.

☐ Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.

☐ Attached in UA4 is a **modeling report for some** pollutants from the facility.

X No modeling is required. Previous modeling was performed under PSD Permit 2466.

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

To show compliance with existing NSR permits conditions, you must submit a compliance test history. The table below provides an example.

Compliance Test History Table

Unit No.	Test Description	Test Date
1,7	Annual RATA was performed for NOx and CO CEMS.	09/03/15 - 09/04/15
1,7	Annual RATA was performed for NOx and CO CEMS.	08/30/16
1,7	Annual RATA was performed for NOx and CO CEMS.	09/14/17 - 09/15/17
1,7	Annual RATA was performed for NOx and CO CEMS.	06/26/18 - 06/27/18
1,7	Annual RATA was performed for NOx and CO CEMS.	07/30/19
1,7	Annual RATA was performed for NOx and CO CEMS.	06/03/20 - 06/04/20

Section 19

Requirements for Title V Program

Who Must Use this Attachment:

* Any major source as defined in 20.2.70 NMAC.
* Any source, including an area source, subject to a standard or other requirement promulgated under Section 111 - Standards of Performance for New Stationary Sources, or Section 112 Hazardous Air Pollutants, of the 1990 federal Clean Air Act ("federal Act"). Non-major sources subject to Sections 111 or 112 of the federal Act are exempt from the obligation to obtain an 20.2.70 NMAC operating permit until such time that the EPA Administrator completes rulemakings that require such sources to obtain operating permits. In addition, sources that would be required to obtain an operating permit solely because they are subject to regulations or requirements under Section 112(r) of the federal Act are exempt from the requirement to obtain an Operating Permit.
* Any Acid Rain source as defined under title IV of the federal Act. The Acid Rain program has additional forms. See http://www.env.nm.gov/aqb/index.html. Sources that are subject to both the Title V and Acid Rain regulations are encouraged to submit both applications simultaneously.
* Any source in a source category designated by the EPA Administrator ("Administrator"), in whole or in part, by regulation, after notice and comment.

19.1 - 40 CFR 64, Compliance Assurance Monitoring (CAM) (20.2.70.300.D.10.e NMAC)

Any source subject to 40CFR, Part 64 (Compliance Assurance Monitoring) must submit all the information required by section 64.7 with the operating permit application. The applicant must prepare a separate section of the application package for this purpose; if the information is already listed elsewhere in the application package, make reference to that location. Facilities not subject to Part 64 are invited to submit periodic monitoring protocols with the application to help the AQB to comply with 20.2.70 NMAC. Sources subject to 40 CFR Part 64, must submit a statement indicating your source's compliance status with any enhanced monitoring and compliance certification requirements of the federal Act.

No CAM plan is required for AGS. AGS does have NOx controls, but uses CEMS (as required by other applicable requirements) to monitor NOx emissions and therefore meets all CAM requirements.

19.2 - Compliance Status (20.2.70.300.D.10.a & 10.b NMAC)

Describe the facility's compliance status with each applicable requirement at the time this permit application is submitted. This statement should include descriptions of or references to all methods used for determining compliance. This statement should include descriptions of monitoring, recordkeeping and reporting requirements and test methods used to determine compliance with all applicable requirements. Refer to Section 2, Tables 2-N and 2-O of the Application Form as necessary. (20.2.70.300.D.11 NMAC) For facilities with existing Title V permits, refer to most recent Compliance Certification for existing requirements. Address new requirements such as CAM, here, including steps being taken to achieve compliance.

AGS is in currently in compliance with all applicable requirements. The most recent annual compliance certification (dated 01/23/2020) is attached as A-P211-19-CompCert.

19.3 Continued Compliance (20.2.70.300.D.10.c NMAC)

Provide a statement that your facility will continue to be in compliance with requirements for which it is in compliance at the time of permit application. This statement must also include a commitment to comply with other applicable requirements as they come into effect during the permit term. This compliance must occur in a timely manner or be consistent with such schedule expressly required by the applicable requirement.

Afton Generating Station will remain in compliance with all applicable requirements identified in this permit application, unless those requirements are revoked by Congress, the Administrator or the Department, or revised or reinterpreted by Congress, the Administrator or the Department so as to be no longer applicable to Afton Generating Station. Afton Generating Station will, in a timely manner, comply with all applicable requirements that may be created by new rules that become effective during the permit term. Compliance with any new requirements will be achieved within the schedule expressly required by the applicable requirement. If required, the 20.2.70NMAC permit will be updated, modified or supplemented according to the procedures of 20.2.70NMAC or according to specific procedures included in the new applicable requirement.

19.4 - Schedule for Submission of Compliance (20.2.70.300.D.10.d NMAC)

You must provide a proposed schedule for submission to the department of compliance certifications during the permit term. This certification must be submitted annually unless the applicable requirement or the department specifies a more frequent period. A sample form for these certifications will be attached to the permit.

AGS proposes that the schedule for submission of compliance certifications remains the same as in the current Operating Permit. This schedule requires the certification to be submitted annually (at least every 12 months) due no later than 30 days after December 31 of each year, per condition A109.B of the current operating permit.

- Stratospheric Ozone and Climate Protection

In addition to completing the four (4) questions below, you must submit a statement indicating your source's compliance status with requirements of Title VI, Section 608 (National Recycling and Emissions Reduction Program) and Section 609 (Servicing of Motor Vehicle Air Conditioners).

---

1. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances? **X Yes** **☐ No**

2. Does any air conditioner(s) or any piece(s) of refrigeration equipment contain a refrigeration charge greater than 50 lbs? **☐ Yes** **X No**

   (If the answer is yes, describe the type of equipment and how many units are at the facility.)

3. Do your facility personnel maintain, service, repair, or dispose of any motor vehicle air conditioners (MVACs) or appliances ("appliance" and "MVAC" as defined at 82. 152)? **☐ Yes** **X No**

4. Cite and describe which Title VI requirements are applicable to your facility (i.e. 40 CFR Part 82, Subpart A through G.) NA

NA

19.6 - Compliance Plan and Schedule

Applications for sources, which are not in compliance with all applicable requirements at the time the permit application is submitted to the department, must include a proposed compliance plan as part of the permit application package. This plan shall include the information requested below:

A. **Description of Compliance Status:** (20.2.70.300.D.11.a NMAC)
A narrative description of your facility's compliance status with respect to all applicable requirements (as defined in 20.2.70 NMAC) at the time this permit application is submitted to the department.

B. **Compliance plan:** (20.2.70.300.D.11.B NMAC)
A narrative description of the means by which your facility will achieve compliance with applicable requirements with which it is not in compliance at the time you submit your permit application package.

C. **Compliance schedule:** (20.2.70.300D.11.c NMAC)
A schedule of remedial measures that you plan to take, including an enforceable sequence of actions with milestones, which will lead to compliance with all applicable requirements for your source. This schedule of compliance must be at least as stringent as that contained in any consent decree or administrative order to which your source is subject. The obligations of any consent decree or administrative order are not in any way diminished by the schedule of compliance.

D. **Schedule of Certified Progress Reports:** (20.2.70.300.D.11.d NMAC)
A proposed schedule for submission to the department of certified progress reports must also be included in the compliance schedule. The proposed schedule must call for these reports to be submitted at least every six (6) months.

E. Acid Rain Sources: (20.2.70.300.D.11.e NMAC)
If your source is an acid rain source as defined by EPA, the following applies to you. For the portion of your acid rain source subject to the acid rain provisions of title IV of the federal Act, the compliance plan must also include any additional requirements under the acid rain provisions of title IV of the federal Act. Some requirements of title IV regarding the schedule and methods the source will use to achieve compliance with the acid rain emissions limitations may supersede the requirements of title V and 20.2.70 NMAC. You will need to consult with the Air Quality Bureau permitting staff concerning how to properly meet this requirement.

NOTE: The Acid Rain program has additional forms. See http://www.nmenv.state.nm.us/aqb/index.html. Sources that are subject to both the Title V and Acid Rain regulations are **encouraged** to submit both applications **simultaneously**.

AGS is currently in compliance with all applicable requirements. Therefore 19.6 A through D are not applicable.

AGS has an acid rain permit. The AGS acid rain permit renewal application is attached with this Title V renewal permit application.

19.7 - 112(r) Risk Management Plan (RMP)

Any major sources subject to section 112(r) of the Clean Air Act must list all substances that cause the source to be subject to section 112(r) in the application. The permittee must state when the RMP was submitted to and approved by EPA.

AGS does not store any materials in quantities sufficient to trigger applicability of Section 112(r).

19.8 - Distance to Other States, Bernalillo, Indian Tribes and Pueblos

Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B NMAC)?

(If the answer is yes, state which apply and provide the distances.)

AGS is approximately 15.1 miles from the closest point on the Texas state boundary.

19.9 - Responsible Official

Provide the Responsible Official as defined in 20.2.70.7.AD NMAC:

The responsible official is Mr. Randy Pickering, Director of Plant Management, 575-233-5152, Randy.Pickering@pnm.com

PNM
2401 Aztec Road NE, MS Z100
Albuquerque, NM 87107
505-241-2016
Fax 505-241-2384
www.pnm.com

FEDERAL EXPRESS

January 23, 2020

Chief, Air Permits
US EPA Region 6, 6EN-AA
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Public Service Company of New Mexico Afton Generating Station
Annual Compliance Certification Report
Operating Permit Number: P211-R2

Dear Sir or Madam:

Enclosed is the annual compliance certification report for the Public Service Company of New Mexico Afton Generating Station, Operating Permit Number P211-R2.

This report covers the period of January 1, 2019 through December 31, 2019.

If you have any questions regarding this report, please contact me at (505) 241-2016.

Sincerely,

Robin K. DeLapp
Technical Project Manager

Enclosure

Cc: NMED, Air Quality Bureau (via NMED Secure Extranet Portal)
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

Title V Report Certification Form

I. Report Type

☒ **Annual Compliance Certification**

☐ **Semi-Annual Monitoring Report**

☐ **Other Specify:**

II. Identifying Information

Facility Name: Afton Generating Station		
Facility Address: 10100 W Afton #5, La Mesa	State: NM	Zip: 88044-9311
Responsible Official (RO): Randy Pickering	Phone: (575) 233-5152	Fax: (575) 233-5242
RO Title: Plant Manager	RO e-mail: Randy.Pickering@pnm.com	
Permit No.: P211-R2	Date Permit Issued: 7/1/2016	
Report Due Date (as required by the permit): 1/30/2020	Permit AI number: 164	
Time period covered by this Report: From: 1/1/2019	To: 12/31/2019	

III. Certification of Truth, Accuracy, and Completeness

I am the Responsible Official indicated above. I, (Randy Pickering) certify that I meet the requirements of 20.2.70.7.AD NMAC. I certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached Title V report are true, accurate, and complete.

Signature _____ Date: 1/21/20

Part 1 - Permit Requirements Certification Table

Annual Compliance Certification Data for Title V Permit No. P211R2				
1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
FACILITY SPECIFIC REQUIREMENTS **A101 Permit Duration (expiration)** A. The term of this permit is five (5) years. It will expire five years from the date of issuance. Application for renewal of this permit is due twelve (12) months prior to the date of expiration. (20.2.70.300.B.2 and 302.B NMAC)	Afton Generating Station (AGS) acknowledges that P211-R2 will expire five (5) years from the date of issuance (on July 1, 2021).	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A101 Permit Duration (expiration) B. If a timely and complete application for a permit renewal is submitted, consistent with 20.2.70.300 NMAC, but the Department has failed to issue or disapprove the renewal permit before the end of the term of the previous permit, then the permit shall not expire and all the terms and conditions of the permit shall remain in effect until the renewal permit has been issued or disapproved. (20.2.70.400.D NMAC)	AGS will submit an application to renew this Title V operating permit before July 1, 2020 more than twelve (12) months prior to the date of expiration.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A102 Facility: Description B. This facility is located in Township 25S, Range 01E, Section 21, approximately 15 miles southwest of Las Cruces, New Mexico in Dona Ana County. The Universal Transverse Mercator (UTM) coordinates for this Facility are UTM E 325830 m, UTM N 3554630 m, and UTM zone 13. This facility is a stationary source and not allowed to relocate.	The location of AGS is as described in A102.B. The facility is a stationary source.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
(20.2.70.302.A(7) NMAC)				
A103 Facility: Applicable Regulations **A.** The permittee shall comply with all applicable sections of the requirements listed in Table 103.A	Each of the below listed applicable requirements has been satisfied throughout the current reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

Table 103.A: Applicable Requirements

Applicable Requirements	**Federally Enforceable**	**Unit No.**
NSR Permit No: PSD2466-M4 (Per 20.2.72 NMAC)	X	Entire Facility
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.61 NMAC Smoke and Visible Emissions	X	Units 1, 4, & 7
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permit	X	Entire Facility
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.74 NMAC Permits – Prevention of Significant Deterioration (PSD)	X	Entire Facility
20.2.77 NMAC New Source Performance	X	Units 1 & 7
20.2.82 NMAC MACT Standards for Source Categories of HAPs	X	Unit 8
20.2.84 NMAC Acid Rain Permits	X	Unit 1
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60 Subpart A General Provisions	X	Units 1 & 7
40 CFR 60 Subpart Da Standards of Performance for Electric Utility Steam Generating Units	X	Unit 7
40 CFR 60 Subpart GG Stationary Gas Turbines	X	Unit 1
40 CFR 63 Subpart A General Provisions	X	Unit 8
40 CFR 63 Subpart ZZZZ Engines	X	Unit 8
40 CFR 72 Title IV Acid Rain Program	X	Unit 1
40 CFR 73 Sulfur Dioxide Allowance Emissions	X	Unit 1
40 CFR 75 Acid Rain Continuous Emission Monitoring	X	Unit 1

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
A103 Facility: Applicable Regulations C. This TV Permit Renewal incorporates the following changes as permitted under New Source Review (NSR)/ Prevention of Significant Deterioration (PSD) PSD2466-M4: 1) revising the numeric value of the AGS SSM pounds per hour limit for NOx emissions in Simple Cycle mode, 2) revised condition A405.A Cooling Tower, TDS monitoring and 3) add Greenhouse gas emissions to Table 102.A. Existing Emergency Fire Pump Engine Unit 8 is incorporated into this TV renewal due to a change in the applicability of 40 CFR 63, Subpart ZZZZ. Conditions are revised throughout to remove repetitious language and clarify requirements. The description of this modification is for informational purposes only and is not enforceable.	The applicable requirements associated with the changes incorporated into this permit have been satisfied throughout the applicable reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A104 Facility: Regulated Sources **A.** Table 104.A lists the emission units authorized for this facility. Emission units identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and/or equipment not regulated pursuant to the Act are not included.	AGS records indicate no new equipment, other than those authorized in the below listed table (excluding those identified as insignificant, trivial, and not regulated pursuant to the Act) have been added during this reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make Model	Serial No.	Capacity	Construction Date	[1]Scenario /Control Device
1	Combustion Turbine	General Electric 7FA	298032	164 MW, [2]1,699.6	1/22/2002	SC – none; CC – Unit 3/SCR

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?

				MMBtu/hr		
2	2 Cell Forced Draft Cooling Tower	GEA	423627-21-24-FCF	18,781 gpm	10/12/2007	CC only -none
3	Heat Recovery Steam Generator (HRSG) with SCR	Cormetech, Inc.	102178	68 MW	10/12/2007	CC only – ammonia injection SCR
4	Dew Point Heater	Thermoflux/ Webster Eng.	9114/64611A-01-001-02	5.1 MMBtu/hr	1/22/2002	SC and CC - none
7	Duct Burner	Coen Co., Inc., Forney Corp.	407265-01	60 MW, 505 MMBtu/hr	10/12/2007	CC only – Unit 3/SCR
8	Fire Pump Engine	Clarke/John Deere JDFP-06WA	RG6081A147837	265 hp	01/2002	NA

[1] SC = Simple Cycle; CC = Combined Cycle; SCR = Selective Catalytic Reduction
[2] This 1,699.6 MMBtu/hr is the maximum heat input based on 0 °F for Oil.
Note: The equipment listed above can be used to configure the plant into three configurations, each of which provide three different levels of power generation.

A105 Facility: Control Equipment A. Table 105.A lists all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.	AGS records indicate no new equipment, other than what is authorized in the below listed table have been added during this reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?

Table 105.A: Control Requirements:

Control Unit No.	Control Description	Pollutant being controlled	Control for Unit Number(s)[1]	Required for BACT
3	Selective Catalytic Reduction unit from Cormetech, Inc for the catalyst	NOx	1, 7	Yes
3	Good Combustion Practices	VOC and CO	1, 7	Yes

[1] Control for unit number refers to a unit number from the Regulated Sources List

A106 Facility: Allowable Emissions A. The following Section lists the emission units, and their allowable emission limits. (40 CFR 50; 40 CFR 60, Subparts A Da, and GG; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; and NSR Permit PSD2466-M4).	The emission limits listed in the table below have been met during normal operation based on monitoring conducted per Section A106, unless otherwise noted in this report.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

Table 106.A: Allowable Emissions

Pollutant	Averaging Period	Simple Cycle[2,4] (Scenario 1, Units 1, 4: Stack 1A)	Combined Cycle[3,4] (Scenario 2, Units 1, 3, 4:Stack 1B)	Combined Cycle[3,4] (Scenario 3, Units 1, 3, 4, 7: Stack 1B)	Oil Fired (Scenario 4)
NO_2 (pph)[1]	24 hour	55.3	22.3	22.6	300.3
NO_2 (ppmv) dry @15% O_2 (BACT)	24 hour	*9.0*	*3.5*[5]	*3.5*[5]	*42.0*
NO_2 (tpy)	Daily rolling 365 day total	232.1	93.1	93.4	31.1
CO (pph)	24 hour	28.2	28.2	79.2	63.2
CO (ppmv) dry @ 15% O_2 (BACT)	24 hour	*9.0*	*9.0*[6]	*9.0*[6]	*na*
CO (tpy)	Daily rolling 365 day total	115	115	165	7

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:			3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
VOC (pph)	24 hour	13.1	13.1	33.3	14.1	
VOC (ppmv) wet (BACT)	24 hour	*7.0*	*7.0*[7]	*7.0*[7]	*na*	
VOC (tpy)	Daily rolling 365 day total	57.4	57.4	76.8	1.7	
SO_2 (pph)	24 hour	2.8	3.7	3.7	93.0	
SO_2 (tpy)	Daily rolling 365 day total	12.0	13.0	13.0	9.0	
TSP (pph)	24 hour	10.2	18.2	18.2	17.0	
TSP (tpy)[8]	Daily rolling 365 day total	40.2	49.1	49.1	2.2	
PM_{10} (pph)	24 hour	10.1	18.1	18.1	17.0	
PM_{10} (tpy)[8]	Daily rolling 365 day total	40.2	48.5	48.5	2.2	
$PM_{2.5}$ (pph)	24 hour	10.0	18.0	18.0	17.0	
$PM_{2.5}$ (tpy)[8]	Daily rolling 365 day total	40.2	48.2	48.2	2.2	
NH_3 (pph)	24 hour	na	21	21	na	
NH_3 (ppm) wet	24 hour		*10.0*	*10.0*	*na*	
NH_3 (tpy)	Daily rolling 365 day total	na	82	82	na	
HCHO (pph)[9]	NA	1.1	1.1	1.1	0.5	
HCHO (tpy)	Daily rolling 365 day total	4.6	4.6	4.6	0.05	

1.Hourly emissions are at zero degrees Fahrenheit and annual are at 60 degrees Fahrenheit.

2.Scenario 1, Simple cycle emissions from Unit 1 shall be emitted from Stack 1A

3.Scenario 2 and 3, combined cycle emissions from Units 1, 3, and 7 shall be emitted from Stack 1B

4.The Dew Point Heater emissions (Stack 4) have been incorporated into the tons per year emission rates for each scenario (Stacks 1A or 1B).

5.Combined cycle NO2 emissions of 3.5 ppm shall be achieved using the Department's BACT determination that SCR at this emission rate constitutes BACT.

6.Combined cycle CO emissions of 9.0 ppm shall be achieved by using the BACT determination of good combustion practices and the use of natural gas as fuel.

7.Combined cycle VOC emissions of 7.0 ppm shall be achieved by using the BACT determination of good combustion practices

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
8.Particulate emissions in the combined cycle mode include a Cooling Tower contribution of TSP = 0.21 pph and 0.93 tpy; PM10 = .07 pph and 0.3 tpy; and PM2.5 = .0004 pph and .002 tpy. 9.On-going compliance with carbon monoxide emissions shall be used to determine compliance with formaldehyde emissions as suggested by Sims Roy's 12/30/99 USEPA memorandum regarding formaldehyde emissions from dry low NOx combustion turbines.				
A106 Facility: Allowable Emissions B. Annual operating fees are based on emissions calculated in accordance with the authorized hours of operation per scenario in condition A108.A. Values are maximum emissions of each pollutant based on a combination of each of the four possible operating scenarios. For fee purposes only, total emissions in Table 106.B Allowable Emissions for Annual Fees are calculated based on the following: (1) CO is based on scenario 1 (prorated for 6840 hrs/y to 89.9 tpy) plus scenario 3 (prorated for 1920 hrs/y to 76.0 tpy) for 165.9 tpy. (2) NOx is based on scenario 1 (prorated for 8560 hrs/y to 226.8 tpy) plus scenario 4 (200 hrs/y max 31.1 tpy) for 257.9 tpy. (3) VOC is based on scenario 1 (prorated for 6840 hrs/y to 44.8 tpy) plus scenario 3 (prorated for 1920 to 32.0 tpy) for 76.8 tpy. (4) TSP and SO2 are based solely on scenario 2 for 49.1, and 13.0 tpy respectively.	AGS records, based on CEMS monitoring data, operating hours, and predictive modeling, indicate the facility tons per year (tpy) for the following pollutants did not exceed the tpy limit for this reporting period: (1) CO emissions did not exceed 165.9 tpy. (2) NOx emissions did not exceed 257.9 tpy. (3) VOC emissions did not exceed 76.8 tpy. (4) SO2 emissions did not exceed 13 tpy.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?

Table 106.B: Allowable Emissions for Annual Fees

	NO_x tpy	CO tpy	VOC tpy	SO_2 tpy	TSP tpy
Total	257.9	165.9	76.8	13.0	49.1

A106 Facility: Allowable Emissions C. The turbine (Unit 1) shall comply with the standards for nitrogen oxide and sulfur dioxide required by 40 CFR 60.332, 60.333, and 60.334(Subpart GG).	No excess Subpart GG emissions occurred during this reporting period based on CEMS monitoring data.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A106 Facility: Allowable Emissions D. When operating in Scenario 3, the duct burner (Unit 7: Stack 1B) shall comply with the emissions standards required by 40 CFR 60 Subpart Da Sections 60.42Da(c) or (d) Standard for Particulate Matter, 60.43Da(i) Standard for Sulfur Dioxide and 60.44Da(e) Standard for Nitrogen Oxides.	No excess Subpart Da emissions occurred during this reporting period based on CEMS monitoring data.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A106 Facility: Allowable Emissions E. The Dew point Heater (Unit 4) shall not exceed the emission rates as specified by Table 106.E. The Dew Point Heater emissions have been incorporated into the tons per year emission rates for each scenario shown in Table 106.A.	The emission unit listed in Table 106.E has met the permitted emission limits based on predictive monitoring and manufacturer's fuel flow limit.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?

Table 106.E: Dew Point Heater Emissions

Unit No.	NO_2 [1] (pph / tpy)		CO (pph / tpy)		VOC (pph / tpy)		SOx (pph / tpy)		TSP (pph / tpy)		PM_{10} (pph / tpy)	
4	<	1.1	<	1.0	<	<	<	<	<	<	<	<

[1] Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.
[2] The "<" symbol indicates a value that is less than 1.0 pph or less than 1.0 tpy.

A106 Facility: Allowable Emissions F. Allowable Emissions – Averaging Periods for Hourly (pph) and Annual (tpy) Emission Limits **Requirement**: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by the using the CEMS-generated NOx and CO emissions data to calculate pph/24 hours, ppmv/24 hours, and daily rolling 365-day total (tpy). Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits. (PSD 2466-M4; Table 106.A Footnotes 12 and 13, Condition A106.F, and Sections of Condition A107.C, revised)	No emissions in excess of the NOx or CO pph/24 hours, ppmv/24 hours, and daily rolling 365-day total (tpy) emission limits in the Operating Permit occurred during this reporting period based on CEMS monitoring data with the following exception: Afton reported an exceedance of the 24-hour NOx ppmv emission limt to the NMED on January 14, 2020 (EER report 000164-01142020-01). The exceedance occurred on November 12, 2019; however, it was not discovered until January 13, 2020.	☒ **Continuous** ☐ **Intermittent**	☐ **Yes** ☒ **No**	☒ **Yes** ☐ **No**
Monitoring: The permittee shall monitor and record the date, time, duration, Scenario, and CEMS-generated NOx and CO emissions for steady state operations and each SSM event per the general and specific conditions of this permit. For the purposes of this condition steady state operations are operations that are not SSM.	AGS monitors and records the date, time, duration, Scenario, and CEMS-generated NOx and CO emissions for steady state operations and for each SSM event. The records include the pph/24 hours, ppmv/24 hours, and daily rolling 365-day total (tpy) and are based on CEMS and the Data Acquisition Handling System (DAHS) monitoring data.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
Recordkeeping: The following records shall be maintained: 24-hour Averaging Period for pph and ppmv Emission Limits (1) Each day, the permittee shall calculate and record the daily 24-hour steady state emission rates. Each 24-hour period from midnight to midnight shall represent one calendar day. (2) Averages for 24-hour periods that include SSM emissions shall be calculated by excluding the hours with SSM emissions and calculating an average based on the remaining emissions and hours during the 24-hour period. An hour with any period of SSM emissions during the hour shall be considered an SSM hour subject to the emission limits in Table 107.A and the requirements of Condition A107.C. (3) If the facility has operated in multiple Scenarios during a 24-hour day, the 24-hour daily emission limits applicable to that day shall be pro-rated values based on the number of hours operated under each scenario. For example, if in a 24-hour day the facility operates under Scenario 2 for 22 hours and Scenario 3 for 2 hours, then the 24-hour NOx pph limit for that day shall be the sum of a) The ratio of Scenario 2 operating hours to total operating hours times the Scenario 2 24-hour NOx pph limit, plus b) The ratio of Scenario 3 operating hours to total operating hours times the Scenario 3 24-hour NOx pph limit. The Daily Rolling 365-Day Total Emission Limits (tpy) (1) Each day, the permittee shall calculate and	24-hour Averaging Period: (1) AGS maintains records of the calculated daily 24-hour steady state emission rates based on CEMS monitoring data. (2) AGS maintains records of the calculated daily 24-hour emission rates excluding SSM hours and calculate the daily average based on the remaining emission and hours during the 24-hour period based on CEMS monitoring data. AGS maintains records of emissions during SSM events based on CEMS monitoring data. (3) AGS maintains records demonstrating the 24-hour daily emission limits are pro-rated values based on the number of hours operated under each scenario based on CEMS monitoring data. Daily Rolling 365-Day Total Emission Limits: (1) AGS maintains and calculates the daily rolling 365-day total tpy annual emissions based on total emissions in each 24-hour calendar day and based on CEMS monitoring data. (2) AGS maintains records demonstrating the applicable emission limit is pro-rated when the facility operates in both the simple and combined cycle modes during any daily rolling 365-day period based on CEMS monitoring data. (3) AGS maintains records for the dew point heater usage and maintains records to demonstrate the emissions are added to the total tons per year emission rates for each scenario.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
record the daily rolling 365-day total tpy annual emissions based on the total emissions in each 24-hour calendar day. Total daily emissions shall include both steady-state and SSM emissions, and shall be compared with the annual permitted emission limits in Table 106.A to determine compliance. See also Footnote 2, Table 107.A. (2) If the facility has operated in both the simple and combined cycle modes during any daily rolling 365-day period, the annual emission limit applicable to that 365-day period shall be the pro-rated value in tpy obtained as follows: The sum of a) The ratio of the number of hours of simple cycle operation to total number of operating hours times the simple cycle annual emission limit in tpy; plus b) The ratio of the number of hours of combined cycle operation to the total number of operating hours times the combined cycle annual emission limit in tpy. (3) The Dew Point Heater emissions shall be added to the total tons per year emission rates for each scenario.				
Reporting: The permittee shall report in accordance with Section B110.	24-hour Averaging Period: (1) The semi-annual reports for this reporting period include the calculated daily 24-hour steady state emission rates. (2) The semi-annual reports for this reporting period include the calculated daily 24-hour emission rates excluding SSM hours and emissions during SSM events. (3) The semi-annual reports for this reporting period include records of the pro-rated 24-hour	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
	daily emission limits based on the number of hours operated under each scenario. Daily Rolling 365-Day Total Emission Limits: (1) The semi-annual reports for this reporting period include the daily rolling 365-day total tons per year annual emissions. (2) The semi-annual reports for this reporting period include records of the pro-rated tpy emission limit when the facility operates in both the simple and combined cycle modes during any daily rolling 365-day period. (3) The semi-annual reports for this reporting period include records of the dew point heater tons per year emissions.			
A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) Emissions A. The maximum allowable SSM emission limits for this facility are listed in Table 107.A and were relied upon by the Department to determine compliance with applicable regulations.	No emissions in excess of the NOx and CO SSM emissions limits in Table 107.A occurred during this reporting period based on CEMS monitoring.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?

Table 107.A: Allowable and Enforceable Emissions from Routine and Predictable Startup, Shutdown, and Maintenance[1, 2]

Scenario	NOx[3]	CO
	pph	pph
1 (Simple Cycle, Units 1, 4: Stack 1A)	105.3	644.0
2 (Combined Cycle, Units 1, 3, 4:Stack 1B)	94.0	644.0
3 (Combined Cycle, Units 1, 3, 4, 7: Stack 1B)	94.3	644.0

[1] The SSM emissions shall be monitored using CEMS during the entire startup or shutdown event. Emission limits are total emissions collected by CEMS during the SSM event, not emissions in excess of steady-state.
[2] SSM emissions shall be counted toward annual plant-wide emissions for compliance with tpy emission limits.
[3] Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) Emissions B. Compliance with the SSM limits in Table 107.A, for each SSM event, shall be based on the emission rate as monitored by the CEMS and averaged over the duration of the SSM event. The start and end times of startup and shutdown events will be determined by:	AGS used the following methods to determine compliance with the permitted emission limits: - SSM NOx emissions determined using NOx CEMS data - SSM CO emissions determined using CO CEMS data Records indicate AGS averaged the SSM NOx and CO emissions in accordance with the instructions below.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

Scenario	Startup		Shutdown	
	Start	End	Start	End
1 (Simple Cycle, Units 1, 4: Stack 1A)	Turbine Ignition	Turbine Reaches Mode 6	Instruction to shutdown given	Fuel flow to turbine stops
2 (Combined Cycle, Units 1, 3, 4:Stack 1B)	Turbine Ignition	Turbine/HRSG/Steam Turbine Reaches Mode 6	Instruction to shutdown given	Fuel flow to turbine stops
3 (Combined Cycle, Unit 1, 3, 4, 7: Stack 1B	Turbine startup does not occur in Scenario 3		Instruction to shutdown given	Fuel flow to turbine stops

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) Emissions	No emissions in excess of the NOx and CO SSM emissions limits in this Operating Permit occurred during this reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
C. The authorization of emission limits for startup, shutdown, maintenance, and malfunction does not supersede the requirements to minimize emissions according to Conditions B101.C and B107.A.				
A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) Emissions D. SSM Emissions (Unit 1) **Requirement**: (1) Compliance with the allowable emission limits in Table 107.A shall be demonstrated by the using the CEMS-generated NOx and CO emissions for each event. (NSR PSD2466-M4 Condition A107.C, revised) (2) SSM emissions shall be counted toward annual plant-wide emissions totals for compliance with Table 106.A allowable ton per year emission limits. (PSD2466-M4 Table 107.A Footnote 2) Annual totals shall be calculated as described in Condition A106.F Allowable Emissions – Averaging Periods for Hourly (pph) and Annual (tpy) Emission Limits.	1) No emissions in excess of the NOx and CO SSM emissions limits in this Operating Permit occurred during this reporting period. AGS monitors CEMS-generated NOx and CO emissions for each SSM event. 2) AGS includes SSM emissions in the annual plant-wide emissions totals.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: (1) The permittee shall monitor and record the date, time, duration, Scenario, and CEMS-generated NOx and CO emissions for each SSM event. The record shall include the calculated hourly NOx and CO emissions rates in pph.	AGS monitors and records the date, time, duration, Scenario and CEMS-generated NOx and CO emissions for each SSM event. The records include the calculated hourly NOx and CO emission rates in pph, averaged over the actual duration of the event to demonstrate compliance with the SSM emission limits in this Operating Permit based on CEMS monitoring data.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
Recordkeeping: The following records shall be maintained: (1) Date, time, duration, Scenario, and CEM – generated NOx and CO emissions data for each SSM event. (2) Calculated hourly NOx and CO emissions rate in pph averaged over the duration of the SSM event. (3) Unit 1 and 3, Maintenance of SSM Records: In accordance with 40 CFR Part 60, Subpart A, Section 60.7 the permittee shall maintain records (electronic recordkeeping is acceptable) of startups, shutdowns, and malfunctions of the Combustion Turbine and/or the SCR control device; and periods that the CEMS system is inoperative. (4) The permittee shall record the calculated emissions and parameters used in calculations in accordance with Condition B109.	(1) AGS maintains records of the date, time, Scenario, duration, and CEMS-generated NOx and CO emissions for each SSM event based on CEMS monitoring data. (2) AGS maintains records of the calculated hourly NOx and CO emission rates in pph, averaged over the duration of each SSM event based on CEMS monitoring data. (3) AGS maintains records of startups, shutdowns, and malfunctions of the Combustion Turbine and/or SCR control device and periods when the CEMS system is inoperative based on CEMS monitoring data. (4) AGS maintains records of the calculated emissions and parameters used in calculations in accordance with Condition B109.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	(1) and (2) The semi-annual reports for this reporting period include the date, time, duration, Scenario, and CEMS-generated NOx and CO emissions for each SSM event. (3) The semi-annual reports for this reporting period include a summary of startups, shutdowns, and malfunctions of the CT and/or SCR control device and periods when the CEMS system is inoperative. (4) The semi-annual reports for this reporting period include the calculated emissions and parameters used in calculations.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A108 Facility: Allowable Operations	AGS records indicate the facility operated in Scenarios 1, 2 and 3 during this reporting period.	☒ **Continuous**	☒ **Yes**	☐ **Yes**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
A. Hours of Operation **Requirement**: The facility is authorized to operate on a continuous basis in Scenario 1 or Scenario 2, but not more than 1920 hours per year in Scenario 3, and not more than 200 hours per year in Scenario 4. Compliance shall be determined using a monthly rolling twelve-month total basis. Scenarios 1-4 are defined in Condition A112. (NSR PSD2466-M4 Condition A108.A)	AGS records indicate the facility did not operate more than 1,920 hours per year in Scenario 3 based on a twelve-month rolling average. AGS did not operate using fuel oil (Scenario 4) during this reporting period.	☐ **Intermittent**	☐ **No**	☒ **No**
Monitoring: The permittee shall record the total annual hours for each Combustion Turbine operation Scenario (fuel oil operation, simple cycle operation and hours of combined cycle operation, including duct burner) on a monthly basis. Annual total hours of operation shall be calculated from these monthly values on a monthly rolling twelve-month total basis. The permittee shall record the total turbine hours the facility operates and the total turbine hours operated using fuel oil.	AGS personnel monitor and record the total annual hours for each Combution Turbine operating scenario on a monthly basis. Annual total hours of operation are calculated on a rolling twelve-month basis. AGS did not operate using fuel oil during this reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: In accordance with Section B109, the following records shall be maintained: (1) Total annual hours for each Combustion Turbine operating scenario on a monthly basis. (2) Annual total hours of operation on a monthly rolling twelve month total basis. (3) Total hours of operation using fuel oil.	(1) AGS maintains records total annual hours for the combustion turbine on a monthly basis. (2) AGS maintains records of total hours of operation on a rolling 12 month basis. (3). AGS maintains records of total hours of operation using fuel oil.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	(1) The semi-annual reports for this reporting period include the total annual hours for each CT operating scenario. (2) The semi-annual reports for this reporting period include the annual total hours of operation	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
	and are reported on a rolling twelve-month basis. (3) The semi-annual reports for this reporting period indicate the facility did not use fuel oil during this reporting period.			
A109 Facility: Reporting Schedules (20.2.70.302.E NMAC) A. A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month reporting period. The six month reporting periods start on January 1st and July 1st of each year.	For the semi-annual period between July 1, 2018 and December 31, 2018, the AGS semi-annual report was submitted to the NMED and certified on February 13, 2019. For the semi-annual period between January 1, 2019 and June 30, 2019, the AGS semi-annual report was submitted to the NMED and certified on August 8, 2019.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A109 Facility: Reporting Schedules (20.2.70.302.E NMAC) B. The Annual Compliance Certification Report is due within 30 days of the end of every 12-month reporting period. The 12-month reporting period starts on January 1st of each year.	For the annual reporting period between January 1, 2018 and December 31, 2018, the annual compliance certification (211-R2) from AGS was sent to the NMED and EPA on January 25, 2019.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A109 Facility: Reporting Schedules (20.2.70.302.E NMAC) C. Turbine overhauls or exchanges are allowed provided the overhaul or exchange does not cause a change in the turbine's make or model number, the firing rate, and the potential emission rate of any regulated air pollutant. Before any overhaul or exchange, the Permittee shall report any proposed overhaul or replacement of the turbine (Unit 1) no later than thirty (30) days prior to the proposed overhaul or replacement and within fifteen (15) days after completion, and SCR (Unit 3) catalyst repair or replacement within	The semi-annual reports submitted during this reporting period included statements that no combustion turbine overhaul or replacement and no SCR catalyst repair or replacement occurred.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
fifteen (15) days after such repair or replacement. (NSR PSD2466-M4 Condition A109.A)				
A110 Facility: Fuel and Fuel Sulfur Requirements A. Fuel and Fuel Sulfur Requirements (Units 1, 4, and 7) **Requirement**: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by meeting the following requirements: (1) Units 1, 4, and 7 shall only combust natural gas containing no more than 0.6 grains of total sulfur per 100 dry standard cubic feet when operating in Scenarios 1, 2, or 3. (2) Unit 1 shall use fuel oil containing no more than 0.05% by weight total sulfur when operating in Scenario 4. (NSR PSD2466-M4 Condition A110.A, revised)	AGS records show that only pipeline quality natural gas was used during this reporting period. The station did not operate using fuel oil during this reporting period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: None **Recordkeeping**: The permittee shall demonstrate compliance with the natural gas or fuel oil limit on total sulfur content by maintaining one of the following records: (1) A current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel specifying the allowable limit or less; or (2) Fuel gas analysis conducted once per year, specifying the allowable limit or less. If the most recent analysis shows that the actual sulfur content of the fuel gas is less than 50%	AGS maintains records of a fuel gas analysis conducted on April 6, 2017. The total sulfur by microcoulometry (ASTM D 3246) analysis was less than 1.0 ppm, which equates to less than 0.06 grains/100scf, or less than one-tenth of the 0.6 grains/100scf standard. Therefore, AGS chooses to demonstrate compliance by gas analysis once every 5 years instead of annually. AGS will continue to monitor H2S.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
of the standard, then the permittee may choose to demonstrate compliance once every 5 years instead of annually. If the permittee chooses to test for total sulfur once every 5 years, then the permittee shall monitor the H2S content of the gas annually to show the H2S content is less than 50% of the total sulfur standard; or (3) A receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel type delivered, the amount of fuel delivered, and the maximum sulfur content of the fuel.				
Reporting: The permittee shall report in accordance with Section B110 of this permit.	AGS reported results of the April 6, 2017 fuel gas analysis in the semi-annual reports submitted to the NMED on February 13, 2019 and August 8, 2019.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A111 Facility: 20.2.61 NMAC Opacity A. 20.2.61 NMAC Opacity Limit (Units 1, 4, and 7) **Requirement:** Visible emissions from the turbine (Scenarios 1 or 4, Unit 1: Stack 1A), dew point heater (Unit 4, Stack 4), and turbine with or without duct burner (Scenarios 2 or 3, Units 1, 7: Stack 1B) shall not equal or exceed an opacity of 20 percent.	AGS records show that only pipeline quality natural gas was used during this reporting period. Use of pipeline quality natural gas fuel constitutes compliance with opacity requirements.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: Use of natural gas fuel or natural gas liquids constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. At such time as fuel other than natural gas or natural gas liquids is used, or when any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period steady state operation in	AGS records show that only pipeline quality natural gas was used during this reporting period. Use of pipeline quality natural gas fuel constitutes compliance with opacity requirements.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Steady state opacity measurements shall continue on a quarterly basis per calendar year for each affected unit until such time as natural gas or natural gas liquids are used. For the purposes of this condition, steady state operations of units 1 and 3 are operations that are not SSM.				
Recordkeeping: The permittee shall record dates and duration of use of any fuels other than natural gas or natural gas liquids and the corresponding opacity readings. The opacity measures and readings shall be recorded in accordance with Method 9 in 40 CFR 60, Appendix A.	AGS records show that no fuels other than natural gas were used during this reporting period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	AGS reported that no fuels other than natural gas were used during this reporting period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A111 Facility: 20.2.61 NMAC Opacity B. 20.2.61 NMAC Opacity Limit (Unit 8) **Requirement**: Visible emissions from all stationary combustion emission stacks shall not equal or exceed opacity of 20 percent.	AGS measured opacity on Unit 8, diesel fire pump, on June 15, 2017 (due next in June 2022) using Method 9 procedures. Visual emission observations indicated opacity was less than 20 percent.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring for Standby Generators: Opacity measurement shall be performed at least once every five years on Unit 8 for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.	AGS measured opacity on Unit 8, diesel fire pump, on June 15, 2017 using Method 9 procedures. AGS will conduct an opacity measurement on Unit 8 once every five years.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: The permittee shall record the opacity measures with the corresponding opacity readings on the form referenced in	AGS maintains records of the opacity measurement on Unit 8, diesel fire pump, taken on June 15, 2017 using Method 9 procedures. AGS will conduct an	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

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EPA Method 9, Sections 2.2 and 2.4.	opacity measurement on Unit 8 once every five years and will maintain records of the results.			
Reporting: The permittee shall report in accordance with Section B110.	AGS reported results of the June 15, 2017 Unit 8 opacity measurement in the semi-annual reports submitted to the NMED on February 13, 2019 and August 8, 2019.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A112 Alternative Operating Scenario A. The permittee shall operate this facility in such manner that all applicable requirements and the requirements of 20.2.70 NMAC are met regardless of what scenario the facility is operating under. (20.2.70.302.A.3 NMAC)	AGS has operated in such a manner that all applicable requirements and the requirements of 20.2.70 NMAC have been met.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A112 Alternative Operating Scenario B. The facility is authorized for Alternative Operating Scenarios 1 - 4. (NSR PSD2466-M4 Condition A112.B, revised) (1) Scenario 1 (152 MW nominal): Simple cycle operation combusting natural gas fuel. (2) Scenario 2 (220 MW nominal): Combined cycle operation without the duct burner combusting natural gas fuel. (3) Scenario 3 (280 MW nominal): Combined cycle operation with the duct burner combusting natural gas fuel. (4) Scenario 4 (Emergency): The facility may operate in simple cycle mode combusting fuel oil during emergency situations and for testing purposes.	AGS records indicate the facility operated using either a simple cycle scenario with natural gas fuel, a combined cycle non-duct burner scenario, or combined cycle duct burner scenario. AGS records indicate the facility did not operate using fuel oil at any time.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A112 Alternative Operating Scenario C. During all combined cycle operations (Scenarios 2, 3), emissions from the turbine (Unit 1: Scenario 2) and from the turbine with duct burner (Units 1, 7: Scenario 3) shall be	AGS records indicate that during combined cycle operations (Scenarios 2 and 3) emissions are routed to a Selective Catalytic Reduction (SCR) system.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

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routed to a Selective Catalytic Reduction (SCR) system. The SCR system shall employ ammonia injection to reduce NOx emissions only, and is regarded by the Department as BACT for the Facility when operating in Scenarios 2 and 3. (NSR PSD2466-M4 Condition A112.C)				
EQUIPMENT SPECIFIC REQUIREMENTS **A601 Turbines** A. Continuous Emissions Monitoring System (CEMS) Requirements (Stack 1A and Stack 1B) **Requirement**: (1) The permittee shall install, calibrate, operate and maintain a CEMS to measure NOx and diluent (O2 or CO2) emissions to the atmosphere. The CEMS shall be designed, installed and certified in accordance with the requirements at 40 CFR §60.13, 40 CFR 60, Appendix B, Performance Specification (PS) 2 and 40 CFR 75. A CEMS meeting the requirements of 40 CFR 75 will be presumed to meet the requirements of 40 CFR 60. (2) The permittee shall install, calibrate, operate and maintain a CEMS to measure CO emissions to the atmosphere. The CEMS shall be designed, installed and certified to comply with the requirements at 40 CFR §60.13 and 40 CFR 60, Appendix B, PS 4 and 40 CFR 60, Appendix F, Procedure 1. (3) During simple cycle operation, the	(1) Each CEMS, including the NOx and O2 CEMS, at AGS was installed and is calibrated, operated, and maintained to meet the requirements of 40 CFR Part 60, 40 CFR 60.13, and 40 CFR 75 requirements. (2) The CO CEMS at AGS was installed and is calibrated, operated, and maintained to meet the requirements of 40 CFR 60.13 and 40 CFR 60. (3) During simple cycle operations, the CEMS measure NOx, CO, and diluent from the turbine exhaust stack, Unit 1. (4) During combined cycle operations, the CEMS measure NOx, CO, and diluent from the HRSG exhaust stack, Unit 3. (5) The CEMS at AGS are recalibrated (1) daily when operating, (2) just after starting the CT, and (3) immediately after any maintenance activity the might affect the system calibration. These calibration records are in the CEMS database. (6) AGS developed and maintains a QA/QC plan for each CEMS in accordance with the requirements of 40 CFR 75 and 40 CFR 60, Appendix F. The plan includes a CO data substitution procedure consistent with 40 CFR 75	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

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CEMS shall measure the emissions of NOx, CO and diluent discharged from the turbine exhaust stack, Unit 1. (4) During combined cycle operation, the CEMS shall measure the emissions of NOx, CO and diluent downstream of the SCR catalyst, discharged from the HRSG exhaust stack, Unit 3. (5) The permittee shall recalibrate any CEMS after any maintenance activity that could affect the system calibration and shall re-certify as required by and within the time periods specified by 40 CFR 75.20(b) whenever the permittee makes a replacement, modification, or change that may significantly affect the ability of the system to accurately measure or record emissions. (6) The permittee shall develop and maintain a QA/QC plan for each CEMS. a. The plan for the NOx and diluent CEMS shall be in accordance with the requirements at 40 CFR 75. b. The plan for the CO CEMS shall comply with the requirements at 40 CFR 60, Appendix F, Procedure 1. In addition, the plan shall include a data substitution procedure that is consistent with requirements of 40 CFR 75's missing data procedure for SO2 data. (7) Any changes to the QA/QC plan as a result of CEMS re-certification shall be submitted to the Compliance and Enforcement Section. (NSR PSD2466-M4 Condition A401.B and A401.C, revised)	missing data procedure for SO2 data. (7) The simple cycle NOx and O2 CEMS were certified in November 2002. The combined cycle NOx and O2 CEMS were certified in January 2008 and were recertified in August 2018.			
Monitoring: (1) Pollutant and diluent monitoring,	(1) AGS conducts pollutant monitoring, calibration checks and RATA in accordance with 40 CFR 75	☒ **Continuous**	☒ **Yes**	☐ **Yes**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
calibration checks, and Relative Accuracy Test Audits (RATAs) shall be conducted as follows: a. For the NOx and diluent CEMS, in accordance with the requirements at 40 CFR 75. b. For the CO CEMS, to comply with the requirements at 40 CFR §60.13, 40 CFR 60, Appendix B, PS 4 and 40 CFR 60, Appendix F, Procedure 1. (2) Pollutant and diluent emissions shall be monitored as follows: a. NOx and CO, ppmv (dry standard conditions) b. NOx and CO, ppmv corrected to 15% O2, (dry standard conditions) c. NOx and CO, pph d. Diluent, ppmv or % (dry standard conditions) (3) For time periods outside of compliance testing, stack exhaust flow may be monitored utilizing EPA Method 19. (4) During compliance testing stack exhaust flow shall be monitored by pitot tube, or multiple pitot tubes as necessary, or an equivalent flow measurement device. (5) All required continuous emissions monitoring equipment shall have a minimum data capture rate of ninety percent (90%) per calendar month. The data capture rate is defined as the amount of time the equipment generates the required data divided by the time the unit is in operation. The 10% non-capture residual is intended for periods of malfunction, calibration, or adjustment.	and 40 CFR 60, Appendix F. (2) AGS monitors NOx and CO in ppmv, ppmv corrected to 15% O2, and pph. (3) EPA Method 19 was used to determine exhaust flow for time periods outside of compliance testing. (4) Compliance testing was not required and did not occur during this reporting period. (5) AGS monitors the monthly CEMS data capture rate. AGS records indicate the data capture rate was 90% or better each month for this reporting period.	☐ **Intermittent**	☐ **No**	☒ **No**
Recordkeeping: The permittee shall maintain	(1) AGS maintains records in accordance with	☒ **Continuous**	☒ **Yes**	☐ **Yes**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
records as follows: (1) In accordance with Section B109 of this permit. (2) In accordance with 40 CFR 75 and 40 CFR 60. (3) The permittee shall also maintain records of CEMS and performance test measurements, all CEMS performance evaluations, all CEMS calibration checks, and all adjustment and maintenance of the CEMS.	Section B109 of this permit. (2) AGS maintains records in accordance with 40 CFR 75 and 40 CFR 60. (3) AGS maintains records of CEMS and performance test measurements, CEMS performance evaluations, CEMS calibration checks, and adjustments and maintenance of the CEMS.	☐ **Intermittent**	☐ **No**	☒ **No**
Reporting: The permittee shall comply with the reporting requirements in 40 CFR 75 and as follows: (1) All CEMS shall comply with the notification and reporting requirements at 40 CFR §60.7. (2) The daily average NOx (as NO2) and CO readings from the CEMS as follows: a. In parts per million by volume (ppmv) on a dry basis corrected to 15% O2 b. In pounds per hour; and c. The daily rolling 365 day total for NOx and CO emissions from the turbine (Unit 1) (in tons per year). (3) In accordance with Section B110 the permittee shall keep summaries of any certifications, malfunctions, calibrations, and data capture records. (4) A summary table of the data capture rate of all required continuous monitoring equipment on each Combustion Turbine for each calendar month during the reporting period. a. If the data capture rate for the month is below the minimum level of 90%, the	(1) AGS records indicate that the facility met the notification and reporting requirements in 40 CFR 60.7 (NSPS Subparts A, Da, and GG). (2) The semi-annual reports for the reporting period include the daily NOx and CO readings from the CEMS in ppmv (on a dry basis corrected to 15% O2) and pounds per hour and include the rolling 365-day total for NOx and CO emissions in tons per year. (3) The semi-annual reports for this reporting period include a summary of any certifications, malfunctions, and calibrations and a summary of data capture records. (4) The semi-annual reports for this reporting period contain summary tables of the data capture rate for each calendar month and identify when low operating times influenced the data capture rate.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
permittee shall identify in the summary table whether the data capture rate was influenced by low operating time and show that operating time.				
A601 Turbines B. Fuel Consumption (Unit 1) **Requirement**: A natural gas fuel flow monitor or equivalent measuring device, shall be installed on the turbine (Unit 1) and meet the initial certification requirements of 40 CFR 75 Appendix D 2.1.5, and the quality assurance requirements of 40 CFR 75 Appendix D 2.1.6. (NSR PSD2466-M4 Condition A401.D, revised)	The fuel flow meter installed on Unit 1 and the fuel flow meter installed on the duct burner were both certified by the manufacturer.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: A fuel flow monitor shall be installed to monitor and record the fuel consumption of the turbine, Unit 1. The fuel flow monitor shall be certified as required by 40 CFR 75.	The fuel flow meter installed on Unit 1 and the fuel flow meter installed on the duct burner record fuel consumption and were both certified by the manufacturer.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: In accordance with Section B109, the permittee shall maintain records of the daily and monthly total volumetric flow of natural gas consumed by the turbine (Unit 1). Records shall include the daily, monthly, and the monthly rolling 12 month total volumetric flow of natural gas (calculated once per month).	AGS maintains records of total volumetric flow of natural gas consumed by Unit 1. Records are maintained on a daily, monthly, and 12-month rolling total basis for this reporting period.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: In accordance with Section B110, the permittee shall keep reports of the fuel flow meter certification, the total volumetric flow of natural gas consumed by the turbine (Unit 1).	The semi-annual reports for the reporting period include a summary of the fuel flow meter certification and the total volumetric flow of natural gas consumed by Unit 1.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A601 Turbines	AGS records indicate that the facility met the notification requirements in NSPS Subparts A and	☒ **Continuous**	☒ **Yes**	☐ **Yes**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
C. 40 CFR 60, Subparts A and GG (Unit 1 – All Operational Scenarios) **Requirement**: General Electric 7FA natural gas fired turbine (Unit 1) is subject to the New Source Performance Standards 40 CFR 60 Subpart A - General Provisions and Subpart GG Standards of Performance for Stationary Gas Turbines and shall comply with both the notification requirements in Subpart A and with the specific requirements of Subpart GG. Applicable requirements of Subpart GG include; Standards for Nitrogen Oxide in 40 CFR 60.332, Standards for Sulfur Dioxide in 40 CFR 60.333, and Monitoring of Operations in 40 CFR 60.334. ((NSR PSD2466-M4 Condition A401.A, revised and Condition A401.E, revised)	GG. AGS records indicate no excess Subpart GG emissions occurred during this reporting period based on CEMS monitoring data.	☐ **Intermittent**	☐ **No**	☒ **No**
Monitoring: The permittee shall comply with the monitoring requirements of 40 CFR 60.334.	AGS monitors NOx emissions using a CEMS and monitors fuel sulfur content twice annually, as per the Custom Fuel Monitoring Schedule attached to Permit P11R1-M1. Two sulfur sampling events occurred during this reporting period on March 9, 2019 and September 17, 2019.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.7.	AGS records show the facility has complied with the recordkeeping requirements in NSPS Subparts A and GG by maintaining records of occurrence and duration of any startup, shutdown, or malfunction of the facility, malfunction of the control equipment, and periods when the CEMS is inoperative.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60.7.	AGS records show the facility has complied with the reporting requirements of 40 CFR 60.7 (NSPS	☐ **Continuous**	☒ **Yes**	☐ **Yes**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
	Subpart A) and the specific requirements of NSPS Subpart GG. AGS submitted semi-annual NSPS Excess Emissions and CEMS Availability report to the NMED-AQB and EPA on January 29, 2019 and July 19, 2019.	☒ **Intermittent**	☐ **No**	☒ **No**
A603 Engines A. 40 CFR 63, Subpart ZZZZ (Unit 8) **Requirement**: The unit is subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ.	AGS records indicate the facility has complied with all applicable requirements of 40 CFR 63, Subpart ZZZZ including minimizing idle time and engine startups, annual maintenance, and monitoring hours of operation.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.	AGS monitors the hours of operation for Unit 8 and documents hours spent in emergency and non-emergency operation.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.	AGS maintains records of proper maintenance and hours of operations for Unit 8 including documenting hours spent in emergency and non-emergency operation.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6640, 63.6650, 63.9, and 63.10.	40 CFR 63, Subpart A and ZZZZ includes no applicable reporting requirements for Unit 8.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A603 Engines B. Hours of Operation (Unit 8) **Requirement**: To ensure compliance with NSR Exemption 20.2.72.202(B)(3) NMAC, hours of operation for emergency fire pump engine Unit 8 must be less than 500 hours	AGS records indicate Unit 8 has not operated more than 500 hours per year.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

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per year.				
Monitoring: The permittee shall monitor the dates and hours of operation for the unit.	AGS monitors the dates and hours for Unit 8 operation.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: The permittee shall record the daily hours of operation, calculate and record the rolling 12-month total hours of operation, and shall meet the recordkeeping requirements in Section B109.	AGS maintains records of the daily hours of operation and calculates and records the rolling 12-month total hours of operation for Unit 8.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	The semi-annual reports for this reporting period include records of Unit 8 operating hours.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A604 Heaters A. 40 CFR 60, Subparts A and Da (Unit 7) **Requirement:** The 505 MMBtu/hr duct burner (Unit 7) is subject to 40 CFR 60, Subpart A - General Provisions, and Subpart Da Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced after 9/18/78 and shall comply with both the notification requirements in Subpart A and with the specific requirements of Subpart Da. When operating in Scenario 3, the duct burner (Unit 7: Stack 1B) shall comply with the emissions standards required by 40 CFR 60 Subpart Da Sections 60.42Da((c) or (d) Standard for particulate matter, 60.43Da(i) Standard for sulfur dioxide and 60.44 Da (e) Standard for nitrogen oxides. (NSR PSD2466-M4 Condition A401.A,	AGS records indicate that the facility met the notification requirements in NSPS Subparts A and Da. AGS records indicate no excess Subpart Da emissions occurred during this reporting period based on CEMS monitoring data.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
revised)				
Monitoring: The permittee shall meet the applicable testing requirements of 40 CFR 60, Subpart A and Da.	Initial compliance testing conducted in June 2008 demonstrated compliance with 40 CFR 60 Subpart Da emission limits.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: The permittee shall comply with the applicable record keeping requirements of 40 CFR 60 Subparts A and Da.	AGS records show the facility has complied with the recordkeeping requirements in 40 CFR 60 NSPS Subparts A and Da by maintaining records of occurrence and duration of any startup, shutdown, or malfunction of the facility, malfunction of the control equipment, and periods when the CEMS is inoperative.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60 Subparts A and Da.	AGS records show the facility has complied with the reporting requirements in 40 CFR 60 NSPS Subpart A and the specific requirements of NSPS Subpart Da. AGS submitted semi-annual NSPS Excess Emissions and CEMS Availability report to the NMED-AQB and EPA on January 29, 2019 and July 19, 2019.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A605 Cooling Towers A. Unit 2, TDS Concentration **Requirement**: (1) The facility shall not use any cooling water additives containing heavy metals such as chromium in the cooling tower (Unit 2). The maximum total dissolved solids (TDS) for the circulating water used in the cooling tower shall not exceed a daily average of 4,500 mg/l. The daily average TDS content of the cooling water shall be determined through conductivity measurements as outlined below.	(1) AGS records indicate no cooling water additives containing heavy metals were used in the cooling tower. AGS records indicate the total dissolved solids (TDS) for the circulating water did not exceed a daily average of 4,500 mg/l as determined through conductivity measurement. (2) AGS records indicate the cooling towers are low drift design and equipped with drift eliminators. (3) AGS records indicate the cooling tower recirculating water system is equipped with a circulating water pump with a maximum capacity of 18,781 gallons per minute.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
(2) The cooling towers shall be low drift design and equipped with drift eliminators. (3) The cooling tower recirculating water system shall be equipped with a circulating water pump with a maximum capacity of 18,781 gallons per minute. (4) The cooling tower recirculating water system shall be equipped with a conductivity meter, capable of directly measuring electrolytic conductivity (mhos/cm). The meter shall be a high quality, industrial grade instrument that meets standard industry requirements for accuracy. (5) All equipment, including emission-monitoring equipment and the cooling towers, shall be installed, operated and maintained in a manner consistent with the manufacturer's intended purpose, specifications and recommended procedures. (NSR PSD2466-M4 Condition A405.A)	(4) AGS records indicate the cooling tower recirculating water system is equipped with a conductivity meter capable of directly measuring electrolytic conductivity (mhos/cm). The meter is a high quality, industrial grade instrument that meets standard industry requirements for accuracy. (5) AGS records indicate all equipment, including emission monitoring equipment and the cooling towers, were installed and are operated and maintained in a manner consistent with the manufacturer's intended purpose, specifications, and recommended procedures.			
Monitoring: (1) When operating in combined cycle mode, the permittee shall measure the TDS concentration (ppm) from the cooling towers basin on a weekly basis until an accurate correlation between conductivity and TDS content is established. Thereafter, the permittee shall measure the TDS concentration on an annual basis or establish a new correlation if the source of cooling tower water changes. (2) When operating in combined cycle mode, the daily average TDS content of the cooling tower recirculating water shall be determined through continuous monitoring of the conductivity using the in-line meter and the derived TDS/conductivity correlation.	(1) AGS records indicate that the TDS concentrations were recorded weekly when the unit was operating in the combined cycle mode until an accurate correlation between conductivity and TDS was established. AGS personnel conducted the annual measurement of the TDS concentration on July 15, 2019. (2) AGS records indicate that the daily average TDS content of the cooling tower recirculating water is determined through a continuous monitoring of the conductivity using the in-line meter and the derived TDS/conductivity correlation.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
Recordkeeping: The permittee shall maintain the following records in accordance with Section B109. (1) Records of the cooling tower recirculating water daily average conductivity and correlated TDS. (2) Manufacturer's specifications for the cooling tower recirculating water pump. Manufacturer's specifications for the cooling tower recirculating water conductivity meter to include any periodic calibration or other testing requirements. The record shall include a specification for meter accuracy. (3) Create and maintain a correlation diagram that relates electrolytic conductivity to TDS in the cooling water. This correlation shall contain a minimum of ten (10) conductivity readings within the TDS range of 2000-5000 mg/l. If the source of the cooling tower recirculating water changes, the permittee shall create a new correlation diagram to be used for future TDS determinations.	(1) AGS maintains records of the cooling tower recirculating water daily average conductivity and correlated TDS. (2) AGS records indicate the facility maintains the manufacturer's specifications for the cooling tower recirculating water pump. (3) AGS records indicate the facility created and maintains a correlation diagram that relates electrolytic conductivity to TDS in the cooling water. The correlation diagram contains 10 conductivity readings with the TDS range of 2,000 to 5,000 mg/L.	☒ **Continuous** ☐ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	The semi-annual reports submitted during this reporting period include daily average conductivity of the cooling tower re-circulating water and the correlated TDS when the unit is operating in the combined cycle mode.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A608 Tanks A. Tank 2, Sulfuric Acid Storage **Requirement:** The sulfuric acid concentrate used at the facility shall not exceed 93% H2SO4 to demonstrate compliance with emissions calculations. (NSR PSD2466-M4 Condition A408.A)	AGS purchasing records show the sulfuric acid concentrate used at the facility does not exceed 93% H2SO4.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
Monitoring: Purchasing and delivery records of sulfuric acid ordered and delivered shall be obtained and maintained to show that the sulfuric acid concentrate did not exceed 93% H2SO4.	AGS monitors the purchasing and delivery records of the sulfuric acid concentrate used at the facility and records indicate the concentration does not exceed 93% H2SO4.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: In accordance with Section B109, the permittee shall maintain purchase and delivery records of sulfuric acid.	AGS maintains purchase and delivery records of the sulfuric acid.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Reporting: The permittee shall report in accordance with Section B110.	The semi-annual reports submitted during this reporting period include the concentrations of sulfuric acid used at the facility.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
A609 Selective Catalytic Reduction (SCR) System A. Selective Catalytic Reduction (SCR) System (Emissions Control for Units 1, 3, & 7 during Operating Scenarios 2 and 3) **Requirement**: Compliance with the allowable emissions limits and BACT requirements in Table 106.A shall be demonstrated by the proper operation of the Selective Catalytic Reduction System (SCR). (NSR PSD2466-M4 Condition A409.A, revised)	AGS records indicate that the emissions limits and BACT requirements were not exceeded during this reporting period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Monitoring: (1) The permittee shall monitor the total ammonia consumed by the SCR system on a weekly basis. (2) When the SCR is operating, the ammonia injection systems shall be inspected on a daily basis to insure proper operation.	(1) AGS facility personnel monitors the total ammonia consumed by the SCR system on a weekly basis. (2) AGS facility personnel inspect the SCR daily when the system is operating.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**
Recordkeeping: (1) The permittee shall record any abnormalities of the ammonia injection System found during the daily inspections and record	(1) AGS maintains records of any abnormalities of the ammonia injection system found during inspections and the total ammonia consumed by the SCR system during this reporting period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

1. Permit Condition # and Permit Condition:	2. Method(s) or other information or other facts used to determine the compliance status:	3. What is the frequency of data collection used to determine compliance?	4. Was this facility in compliance with this requirement during the reporting period?	5. Were there any deviations associated with this requirement during the reporting period?
actions taken to correct bring the system into normal operating conditions, and maintenance activities. (2) The permittee shall maintain a record of the total ammonia consumed on a weekly basis. (3) The permittee shall maintain a manufacture's specification sheet, equipment manual, or equivalent documentation detailing the control system on the SCR unit which details the recommended unit temperature range to minimize ammonia slip. Records shall be maintained in accordance with Section B109.	(2) AGS maintains records of the ammonia consumed on a weekly basis. (3) AGS maintains a manufacturer's specification sheet detailing the control system on the SCR, and recommended unit temperature range in accordance with B109.			
Reporting: The permittee shall report in accordance with Section B110.	The semi-annual reports submitted during this reporting period indicate if there were any abnormalities of the ammonia injection system found during the daily inspections and contained the total ammonia consumed for the six-month period.	☐ **Continuous** ☒ **Intermittent**	☒ **Yes** ☐ **No**	☐ **Yes** ☒ **No**

PART 1 B General Conditions

1. Have these General Conditions been met during this reporting period? *If the section Heading is marked as N/A no remarks are required.* *Check only one box per subject heading.* *Explain answers in remarks row under subject heading.*	2. Was this facility in compliance with this requirement during the reporting period?		3. Does not apply
B100 Introduction A. N/A	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
REMARKS:			
B101 Legal A. Permit Terms and Conditions (20.2.70 sections 7, 201.B, 300, 301.B, 302, 405 NMAC) (1) The permittee shall abide by all terms and conditions of this permit, except as allowed under Section 502(b)(10) of the Federal Act, and 20.2.70.302.H.1 NMAC. Any permit noncompliance is grounds for enforcement action, and significant or repetitious noncompliance may result in termination of this permit. Additionally, noncompliance with federally enforceable conditions of this permit constitutes a violation of the Federal Act. (20.2.70.302.A.2.a NMAC) (2) Emissions trading within a facility (20.2.70.302.H.2 NMAC) (a) The Department shall, if an applicant requests it, issue permits that contain terms and conditions allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit in addition to any applicable requirements. Such terms and conditions shall include all terms and conditions required under 20.2.70.302 NMAC to determine compliance. If applicable requirements apply to the requested emissions trading, permit conditions shall be issued only to the extent that the applicable requirements provide for trading such increases and decreases without a case-by-case approval. (b) The applicant shall include in the application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Department shall not include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall require compliance with all applicable requirements. (3) It shall not be a defense for the permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (20.2.70.302.A.2.b NMAC)	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below

(4) If the Department determines that cause exists to modify, reopen and revise, revoke and reissue, or terminate this permit, this shall be done in accordance with 20.2.70.405 NMAC. (20.2.70.302.A.2.c NMAC)

(5) The permittee shall furnish any information the Department requests in writing to determine if cause exists for reopening and revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This information shall be furnished within the time period specified by the Department. Additionally, the permittee shall furnish, upon request by the Department, copies of records required by the permit to be maintained by the permittee. (20.2.70.302.A.2.f NMAC)

(6) A request by the permittee that this permit be modified, revoked and reissued, or terminated, or a notification by the permittee of planned changes or anticipated noncompliance, shall not stay any conditions of this permit. (20.2.70.302.A.2.d NMAC)

(7) This permit does not convey property rights of any sort, or any exclusive privilege. (20.2.70.302.A.2.e NMAC)

(8) In the case where an applicant or permittee has submitted information to the Department under a claim of confidentiality, the Department may also require the applicant or permittee to submit a copy of such information directly to the Administrator of the EPA. (20.2.70.301.B NMAC)

(9) The issuance of this permit, or the filing or approval of a compliance plan, does not relieve the permittee from civil or criminal liability for failure to comply with the state or Federal Acts, or any applicable state or federal regulation or law. (20.2.70.302.A.6 NMAC and the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2)

(10) If any part of this permit is challenged or held invalid, the remainder of the permit terms and conditions are not affected and the permittee shall continue to abide by them. (20.2.70.302.A.1.d NMAC)

(11) A responsible official (as defined in 20.2.70.7.AE NMAC) shall certify the accuracy, truth and completeness of every report and compliance certification submitted to the Department as required by this permit. These certifications shall be part of each document. (20.2.70.300.E NMAC)

(12) Revocation or termination of this permit by the Department terminates the permittee's right to operate this facility. (20.2.70.201.B NMAC)

(13) The permittee shall continue to comply with all applicable requirements. For applicable requirements that will become effective during the term of the permit, the permittee shall meet such requirements on a timely basis. (Sections 300.D.10.c and 302.G.3 of 20.2.70 NMAC)

B. Permit Shield (20.2.70.302.J NMAC)

(1) Compliance with the conditions of this permit shall be deemed to be compliance with any applicable requirements existing as of the date of permit issuance and identified in Table 103.A. The requirements in Table 103.A are applicable to this facility with specific requirements identified for individual emission units.

(2) The Department has determined that the requirements in Table 103.B as identified in the permit application are not applicable to this source, or they do not impose any conditions in this permit.

(3) This permit shield does not extend to administrative amendments (Subsection A of 20.2.70.404 NMAC), to minor permit modifications (Subsection B of 20.2.70.404 NMAC), to changes made under Section 502(b)(10), changes under Paragraph 1 of subsection H of 20.2.70.302 of the Federal Act, or to permit terms for which notice has been given to reopen or revoke all or part under 20.2.70.405 and 20.2.70.302J(6).

(4) This permit shall, for purposes of the permit shield, identify any requirement specifically identified in the permit application or significant permit modification that the department has determined is not applicable to the source, and state the basis for any such determination. (20.2.70.302.A.1.f NMAC)

C. The owner or operator of a source having an excess emission shall, to the extent practicable, operate the source, including associated air pollution control equipment, in a manner consistent with good air pollutant control practices for minimizing emissions. (20.2.7.109 NMAC). The establishment of allowable malfunction emission limits does not supersede this requirement.

REMARKS:

(A.1) AGS (Afton) has abided by all terms and conditions of Permit 211R2 for the reporting period.
(A.2) AGS has made no request to the Department concerning trading of emissions increases or decreases.
(A.3), (A.4), (A.7), (A.8), (A.9), (A.10) Procedural regulatory statements.
(A.5) Records indicate that all Department requested information was submitted in a timely manner.
(A.6) AGS had made no requests to modify, revoke, reissue, or terminate Permit 211R2.
(A.11) AGS records indicate that the responsible official certified to the accuracy, truth, and completeness of the Semi-Annual Reports and Annual Compliance Certification submitted to the NMED-AQB in 2019.
(A.12) AGS records indicate that AGS experienced no cause for revocation or termination of the right to operate the facility.
(A.13) AGS will continue to comply with all applicable requirements and as new requirements become effective, those requirements will be met in a timely manner.

B(1), B(2), B(3), B(4) Procedural regulatory statements.

C AGS reported no excess emissions during this reporting period. Afton operated the source in a manner consistent with good air pollutant control practices.

B102 Authority	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. This permit is issued pursuant to the federal Clean Air Act ("Federal Act"), the New Mexico Air Quality Control Act ("State Act") and regulations adopted pursuant to the State and Federal Acts, including Title 20, New Mexico			

Administrative Code, Chapter 2, Part 70 (20.2.70 NMAC) - Operating Permits. B. This permit authorizes the operation of this facility. This permit is valid only for the named permittee, owner, and operator. A permit modification is required to change any of those entities. C. The Department specifies with this permit, terms and conditions upon the operation of this facility to assure compliance with all applicable requirements, as defined in 20.2.70 NMAC at the time this permit is issued. (20.2.70.302.A.1 NMAC) D. Pursuant to the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2, all terms and conditions in this permit, including any provisions designed to limit this facility's potential to emit, are enforceable by the Department. All terms and conditions are enforceable by the Administrator of the United States Environmental Protection Agency ("EPA") and citizens under the Federal Act, unless the term or condition is specifically designated in this permit as not being enforceable under the Federal Act. (20.2.70.302.A.5 NMAC) E. The Department is the Administrator for 40 CFR Parts 60, 61, and 63 pursuant to the Modification and Exceptions of Section 10 of 20.2.77 NMAC (NSPS), 20.2.78 NMAC (NESHAP), and 20.2.82 NMAC (MACT).			

REMARKS:
(A), (C), (D), (E) Procedural regulatory statements.
(B) No changes have been made in the named permittee ownership of the AGS facility.

B103 Annual Fee	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. The permittee shall pay Title V fees to the Department consistent with the fee schedule in 20.2.71 NMAC - Operating Permit Emission Fees. The fees will be assessed and invoiced separately from this permit. (20.2.70.302.A.1.e NMAC)			

REMARKS:
Fees in the amount of $16,242.40 (Check #252983) for AGS were delivered to the NMED-Air Quality on May 17, 2019 prior to the June 1 deadline.

B104 Appeal Procedures (20.2.70.403.A NMAC)	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. Any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a petition for a hearing before the Environmental Improvement Board ("board"). The petition shall be made in writing to the board within thirty (30) days from the date notice is given of the Department's			

action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered, and attach a copy of the permitting action for which review is sought. Unless a timely request for a hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to:

Secretary, New Mexico Environmental Improvement Board
1190 St. Francis Drive, Runnels Bldg. Rm N2153
Santa Fe, New Mexico 87502

REMARKS:
(A) Procedural regulatory statement.

B105 Submittal of Reports and Certifications

☒ **Yes** Explain Below | ☐ **No** Explain Below | ☐ **N/A** Explain Below

A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to Stacktest.AQB@state.nm.us or as directed by the Department.

B. Excess Emission Reports shall be submitted as directed by the Department. (20.2.7.110 NMAC)

C. Compliance Certification Reports, Semi-Annual monitoring reports, compliance schedule progress reports, and any other compliance status information required by this permit shall be certified by the responsible official and submitted to the mailing address below, or as directed by the Department:

Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

D. Compliance Certification Reports shall also be submitted to the Administrator at the address below (20.2.70.302.E.3 NMAC):

PART 1 B General Conditions

Chief, Air Enforcement Section US EPA Region-6, 6EN-AA 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733			

REMARKS:

(A) A RATA Stack Test Protocol was submitted electonically to Stacktest.AQB@state.nm.us on July 18, 2019 for testing originally scheduled for August 20 and 21, 2019. On July 19, 2019, PNM submitted a revised protocol indicating that due to operational constraints, the RATA test dates were rescheduled for July 30 and 31, 2019. A RATA Test Report was submitted electronically to Stacktest.AQB@state.nm.us on August 16, 2019.

(B) AGS submits excess emission reports to eereports.aqb@state.nm.us as required.

(C) Compliance Certification and Semi-Annual Reports were certified by the Responsible Official in 2019. The Annual Compliance Certification Report for 2018 was submitted on January 25, 2019 and the semi-annual reports submitted on February 13, 2019 and August 8, 2019.

(D) The 2018 Compliance Certification Report was submitted to Chief, Air Enforcement Section of the US EPA Region-6 on January 25, 2019.

PART 1 B General Conditions

B106 NSPS and/or MACT Startup, Shutdown, and Malfunction Operations	☒ Yes Explain Below	☐ No Explain Below	☐ N/A Explain Below
A. If a facility is subject to a NSPS standard in 40 CFR 60, each owner or operator that installs and operates a continuous monitoring device required by a NSPS regulation shall comply with the excess emissions reporting requirements in accordance with 40 CFR 60.7(c). B. If a facility is subject to a NSPS standard in 40 CFR 60, then in accordance with 40 CFR 60.8(c), operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. C. If a facility is subject to a MACT standard in 40 CFR 63, then the facility is subject to the requirement for a Startup, Shutdown and Malfunction Plan (SSM) under 40 CFR 63.6(e)(3), unless specifically exempted in the applicable subpart. (20.2.70.302.A.1 and A.4 NMAC)			

REMARKS:
(A) (B) AGS has installed and operates CEMS equipment that monitors emissions as required by 40 CFR 60. AGS submitted semi-annual NSPS Excess Emission and CEMs availability reports to the NMED-AQB and EPA on January 29, 2019 and July 19, 2019. No NSPS excess emissions were reported.
(C) AGS maintains a SSM plan ("The Operator's Guide for Minimizing Stack Emissions During SSM") on file at the plant site.

B107 Startup, Shutdown, and Maintenance Operations	☒ Yes Explain Below	☐ No Explain Below	☐ N/A Explain Below
A. The establishment of permitted startup, shutdown, and maintenance (SSM) emission limits does not supersede the requirements of 20.2.7.14.A NMAC. Except for operations or equipment subject to Condition B106, the permittee shall establish and implement a plan to minimize emissions during routine or predictable start up, shut down, and scheduled maintenance (SSM work practice plan) and shall operate in accordance with the procedures set forth in the plan. (20.2.7.14.A NMAC)			

REMARKS:
(A) AGS maintains a SSM plan ("The Operators Guide for Minimizing Stack Emissions During SSM") on file at the plant site.

PART 1 B General Conditions

B108 General Monitoring Requirements (20.2.70. 302.A and C NMAC)	☒ Yes Explain Below	☐ No Explain Below	☐ N/A Explain Below

A. These requirements do not supersede or relax requirements of federal regulations.

B. The following monitoring and/or testing requirements shall be used to determine compliance with applicable requirements and emission limits. Any sampling, whether by portable analyzer or EPA reference method, that measures an emission rate over the applicable averaging period greater than an emission limit in this permit constitutes noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit; but such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.

C. If the emission unit is shutdown at the time when periodic monitoring is due to be accomplished, the permittee is not required to restart the unit for the sole purpose of performing the monitoring. Using electronic or written mail, the permittee shall notify the Department's Enforcement Section of a delay in emission tests prior to the deadline for accomplishing the tests. Upon recommencing operation, the permittee shall submit any pertinent pre-test notification requirements set forth in the current version of the Department's Standard Operating Procedures For Use Of Portable Analyzers in Performance Test, and shall accomplish the monitoring.

D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke monitoring period exemptions at B108.D(2), hours of operation shall be monitored and recorded.

(1) If the emission unit has operated for more than 25% of a monitoring period, then the permittee shall conduct monitoring during that period.

(2) If the emission unit has operated for 25% or less of a monitoring period then the monitoring is not required. After two successive periods without monitoring, the permittee shall conduct monitoring during the next period regardless of the time operated during that period, except that for any monitoring period in which a unit has operated for less than 10% of the monitoring period, the period will not be considered as one of the two successive periods.

(3) If invoking the monitoring period exemption in B108.D(2), the actual operating time of a unit shall not exceed the monitoring period required by this permit before the required monitoring is performed. For example, if the monitoring period is annual, the operating hours of the unit shall not exceed 8760 hours before monitoring is

conducted. Regardless of the time that a unit actually operates, a minimum of one of each type of monitoring activity shall be conducted during the five year term of this permit. E. The permittee is not required to report a deviation for any monitoring or testing in a Specific Condition if the deviation was authorized in this General Condition B108. F. For all periodic monitoring events, except when a federal or state regulation is more stringent, three test runs shall be conducted at 90% or greater of the unit's capacity as stated in this permit, or in the permit application if not in the permit, and at additional loads when requested by the Department. If the 90% capacity cannot be achieved, the monitoring will be conducted at the maximum achievable load under prevailing operating conditions except when a federal or state regulation requires more restrictive test conditions. The load and the parameters used to calculate it shall be recorded to document operating conditions and shall be included with the monitoring report. G. When requested by the Department, the permittee shall provide schedules of testing and monitoring activities. Compliance tests from previous NSR and Title V permits may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions. H. If monitoring is new or is in addition to monitoring imposed by an existing applicable requirement, it shall become effective 120 days after the date of permit issuance. For emission units that have not commenced operation, the associated new or additional monitoring shall not apply until 120 days after the units commence operation. All pre-existing monitoring requirements incorporated in this permit shall continue to apply from the date of permit issuance. All monitoring periods, unless stated otherwise in the specific permit condition or federal requirement, shall commence at the beginning of the 12 month reporting period as defined at condition A109.B.			

REMARKS:

(A) Procedural regulatory statements.
(B) No testing/monitoring, other than 40 CFR Part 75/60 QA/QC activities, were performed on the combustion turbine.
(C) AGS records indicate that no required periodic testing or monitoring was delayed from timely accomplishment due to an emission unit being shut down.
(D) AGS records indicate all required periodic testing and monitoring was accomplished during this reporting period. One of each type of monitoring activity has been or will be conducted during the 5-year term of this permit.
(E) AGS records indicate that no deviations from monitoring or testing occurred during this reporting period.
G) A RATA Stack Test Protocol was submitted electonically to Stacktest.AQB@state.nm.us on July 18, 2019 for testing originally scheduled for August 20 and 21, 2019. On July 19, 2019, PNM submitted a revised protocol indicating that due to operational constraints, the RATA test dates were rescheduled for July 30 and 31, 2019. A RATA Test Report was submitted electronically to Stacktest.AQB@state.nm.us on August 16, 2019. In 2019, the Department made no requests that AGS provide schedules of testing and monitoring activities or that AGS must perform additional compliance testing to determine compliance of any of the emission units with applicable regulations or permit conditions.
(H) AGS records indicate that all monitoring activities became effective within 120 days of the date of the permit issuance and will be implemented within the specified timeframes.

PART 1 B General Conditions

PART 1 B General Conditions

B109 General Recordkeeping Requirements (20.2.70.302.D.1 NMAC)	☒ Yes Explain Below	☐ No Explain Below	☐ N/A Explain Below

A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit and any applicable requirements that become effective during the term of this permit. The minimum information to be included in these records is (20.2.70.302.D.1 NMAC):

(1) Records required for testing and sampling:

(a) equipment identification (include make, model and serial number for all tested equipment and emission controls);

(b) date(s) and time(s) of sampling or measurements;

(c) date(s) analyses were performed;

(d) the company or entity that performed the analyses;

(e) analytical or test methods used;

(f) results of analyses or tests; and

(g) operating conditions existing at the time of sampling or measurement.

(2) Records required for equipment inspections and/or maintenance required by this permit:

(a) equipment identification number (including make, model and serial number)

(b) date(s) and time(s) of inspection, maintenance, and/or repair

(c) date(s) any subsequent analyses were performed (if applicable)

(d) name of the person or qualified entity conducting the inspection, maintenance, and/or repair

(e) copy of the equipment manufacturer's or the owner or operator's maintenance or repair recommendations (if required to demonstrate compliance with a permit condition)

(f) description of maintenance or repair activities conducted

(g) all results of any required parameter readings

(h) a description of the physical condition of the equipment as found during any required inspection

(i) results of required equipment inspections including a description of any condition which required adjustment to bring the equipment back into compliance and a description of the required adjustments

B. The permittee shall keep records of all monitoring data, equipment calibration, maintenance, and inspections, Data Acquisition and Handling System (DAHS) if used, reports, and other supporting information required by this permit for at least five (5) years from the time the data was gathered or the reports written. Each record shall clearly identify the emissions unit and/or monitoring equipment, and the date the data was gathered. (20.2.70.302.D.2 NMAC)

C. If the permittee has applied and received approval for an alternative operating scenario, then the permittee shall maintain a log at the facility, which documents, contemporaneously with any change from one operating scenario to another, the scenario under which the facility is operating. (20.2.70.302.A.3 NMAC)

D. The permittee shall keep a record describing off permit changes made at this source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. (20.2.70.302.I.2 NMAC)

E. Unless otherwise indicated by Specific Conditions, the permittee shall keep the following records for malfunction emissions and routine and predictable emissions during startup, shutdown, and scheduled maintenance (SSM):

(1) The owner or operator of a source subject to a permit, shall establish and implement a plan to minimize emissions during routine or predictable startup, shutdown, and scheduled maintenance through work practice standards and good air pollution control practices. This requirement shall not apply to any affected facility defined in and subject to an emissions standard and an equivalent plan under 40 CFR Part 60 (NSPS), 40 CFR Part 63 (MACT), or an equivalent plan under 20.2.72 NMAC - Construction Permits, 20.2.70 NMAC - Operating Permits, 20.2.74 NMAC - Permits - Prevention of Significant Deterioration (PSD), or 20.2.79 NMAC - Permits - Nonattainment Areas. (20.2.7.14.A NMAC) The permittee shall keep records of all sources subject to the plan to minimize emissions during routine or predictable SSM and shall record if the source is subject to an alternative plan and therefore, not subject to the plan requirements under 20.2.7.14.A NMAC.

(2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, a description of the event, and a description of the cause of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source. The authorization of allowable SSM emissions does not supersede any applicable federal or state standard. The most stringent requirement applies.

(3) If the facility has allowable malfunction emission limits in this permit, the permittee shall record all malfunction events to be applied against these limits. The permittee shall also include the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC) The authorization of allowable malfunction emissions does not supersede any applicable federal or state standard. The most stringent requirement applies. This authorization only allows the permittee to avoid submitting reports under 20.2.7 NMAC for total annual emissions that are below the authorized malfunction emission limit. (4) The owner or operator of a source shall meet the operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup or shutdown. (20.2.72.203.A(5) NMAC)			

REMARKS:

(A) During this reporting period, records were maintained to document all required sampling and testing at AGS. These records include the minimum required information listed in Condition B109.
(B) All records, monitoring information, and submitted reports have been maintained 5 years from either submittal date or date of generation.
(C) AGS records indicate the facility maintains a log that documents the change from one operating scenario to another.
(D) No off permit changes occurred during this reporting period, thus no documentation necessary.
(E) AGS maintains records of all events subject to the plan to minimize emissions during routine or predictable SSM and records all SSM events, including the date, the start time, the end time, and a description of the event.

B110 **General Reporting Requirements** (20.2.70.302.E NMAC)	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. Reports of required monitoring activities for this facility shall be submitted to the Department on the schedule in section A109. Monitoring and recordkeeping requirements that are not required by a NSPS or MACT shall be maintained on-site or (for unmanned sites) at the nearest company office, and summarized in the semi-annual reports, unless alternative reporting requirements are specified in the equipment specific requirements section of this permit. B. Reports shall clearly identify the subject equipment showing the emission unit ID number according to this operating permit. In addition, all instances of deviations from permit requirements, including those that occur during emergencies, shall be clearly identified in the reports required by section A109. (20.2.70.302.E.1 NMAC) C. The permittee shall submit reports of all deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive			

measures taken. These reports shall be submitted as follows:

(1) Deviations resulting in excess emissions as defined in 20.2.7.7 NMAC (including those classified as emergencies as defined in section B114.A) shall be reported in accordance with the timelines specified by 20.2.7.110 NMAC and in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC)

(2) All other deviations shall be reported in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC).

D. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.

E. Results of emission tests and monitoring for each pollutant (except opacity) shall be reported in pounds per hour (unless otherwise specified) and tons per year. Opacity shall be reported in percent. The number of significant figures corresponding to the full accuracy inherent in the testing instrument or Method test used to obtain the data shall be used to calculate and report test results in accordance with 20.2.1.116.B and C NMAC. Upon request by the Department, CEMS and other tabular data shall be submitted in editable, MS Excel format.

F. At such time as new units are installed as authorized by the applicable NSR Permit, the permittee shall fulfill the notification requirements in the NSR permit.

G. Periodic Emissions Test Reporting: The permittee shall report semi-annually a summary of the test results.

H. The permittee shall submit an emissions inventory for this facility annually. The emissions inventory shall be submitted by the later of April 1 or within 90 days after the Department makes such request. (20.2.73 NMAC and 20.2.70.302.A.1 NMAC)

(1) The facility emits, or has the potential to emit, 5 tons per year or more of lead or lead compounds, or 100 tons per year or more of PM10, PM2.5, sulfur oxides, nitrogen oxides, carbon monoxide, or volatile organic compounds.

(2) The facility is defined as a major source of hazardous air pollutants under 20.2.70 NMAC (Operating Permits).

(3) The facility is located in an ozone nonattainment area and which emits, or has the potential to emit, 25 tons per year or more of nitrogen oxides or volatile organic compounds.

(4) Upon request by the department.

(5) The permittee shall submit the emissions inventory report by April 1 of each year, unless a different deadline is specified by the current operating permit.

I. Emissions trading within a facility (20.2.70.302.H.2 NMAC)

(1) For each such change, the permittee shall provide written notification to the department and the administrator

at least seven (7) days in advance of the proposed changes. Such notification shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit. (2) The permittee and department shall attach each such notice to their copy of the relevant permit.			

PART 1 B General Conditions

REMARKS:
(A) (B) The required semi-annual reports for the period July 1 through December 31, 2018 were submitted on February 13, 2019. The semi-annual report for the period January 1 through June 30, 2019 was submitted on August 8, 2019.
(C) AGS had no permit deviations for this reporting period.
(D) AGS submits reports of excess emissions in accordance with 20.2.7.110.A NMAC.
(F) No new units were installed during this reporting period.
(G) Emissions testing results summaries have been reported in the semi-annual reports.
(H) The Emissions Inventory was submitted and certified on March 15, 2019 prior to the April 1 deadline.
(I) No changes were made.

B111 General Testing Requirements	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. Compliance Tests			
(1) Compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions. (20.2.72 NMAC Sections 210.C and 213)			
(2) Compliance tests shall be conducted within sixty (60) days after the unit(s) achieve the maximum normal production rate. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source.			
(3) Unless otherwise indicated by Specific Conditions or regulatory requirements, the default time period for each test run shall be **at least** 60 minutes and each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with an applicable emission limit, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department approval, be determined using the arithmetic mean of the results of the two other runs.			
(4) Testing of emissions shall be conducted with the emissions unit operating at 90 to 100 percent of the maximum operating rate allowed by the permit. If it is not possible to test at that rate, the source may test at a lower operating rate, subject to the approval of the Department.			

(5) Testing performed at less than 90 percent of permitted capacity will limit emission unit operation to 110 percent of the tested capacity until a new test is conducted.

(6) If conditions change such that unit operation above 110 percent of tested capacity is possible, the source must submit a protocol to the Department within 30 days of such change to conduct a new emissions test.

B. EPA Reference Method Tests

(1) All compliance tests required by this permit, unless otherwise specified by Specific Conditions of this permit, shall be conducted in accordance with the requirements of 40 CFR 60, Subpart A, General Provisions, and the following EPA Reference Methods as specified by 40 CFR 60, Appendix A:

(a) Methods 1 through 4 for stack gas flowrate

(b) Method 5 for TSP

(c) Method 6C and 19 for SO_2

(d) Method 7E for NO_X (test results shall be expressed as nitrogen dioxide (NO_2) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO_2 is equivalent to 1.194 x 10-7 lb/SCF)

(e) Method 9 for opacity

(f) Method 10 for CO

(g) Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate upon approval of the Department. A justification for this proposal must be provided along with a contemporaneous fuel gas analysis (preferably on the day of the test) and a recent fuel flow meter calibration certificate (within the most recent quarter).

(h) Method 7E or 20 for Turbines per 60.335 or 60.4400

(i) Method 29 for Metals

(j) Method 201A for filterable PM_{10} and $PM_{2.5}$

(k) Method 202 for condensable PM

(l) Method 320 for organic Hazardous Air Pollutants (HAPs)

(m) Method 25A for VOC reduction efficiency

(n) Method 30B for Mercury

(2) Alternative test method(s) may be used if the Department approves the change.

C. Periodic Monitoring and Portable Analyzer Requirements

(1) Periodic emissions tests (periodic monitoring) may be conducted in accordance with EPA Reference Methods or by utilizing a portable analyzer. Periodic monitoring utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D 6522. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be operated in accordance with that criterion until it is replaced.

(2) Unless otherwise indicated by Specific Conditions or regulatory requirements, the default time period for each test run shall be **at least** 20 minutes.

Each performance test shall consist of three separate runs. The arithmetic mean of results of the three runs shall be used to determine compliance with the applicable emission limit.

(3) Testing of emissions shall be conducted in accordance with the requirements at Section B108.F.

(4) During emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing Method 19. This information shall be included with the test report furnished to the Department.

(5) Stack gas flow rate shall be calculated in accordance with 40 CFR 60, Appendix A, Method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf) determined from a fuel sample obtained preferably during the day of the test, but no earlier than three months prior to the test date. Alternatively, stack gas flow rate may be determined by using EPA Methods 1-4.

D. Test Procedures:

(1) The permittee shall notify the Department's Program Manager, Compliance and Enforcement Section at least thirty (30) days before the test to afford a representative of the Department an opportunity to be present at the test. (40CFR 60.8(d))

(2) Equipment shall be tested in the "as found" condition. Equipment may not be adjusted or tuned prior to any test for the purpose of lowering emissions, and then returned to previous settings or operating conditions after the test is complete.

(3) Contents of test notifications, protocols and test reports shall conform to the format specified by the Department's

Universal Test Notification, Protocol and Report Form and Instructions. Current forms and instructions are posted to NMED's Air Quality web site under Compliance and Enforcement Testing. (4) The permittee shall provide (a) sampling ports adequate for the test methods applicable to the facility, (b) safe sampling platforms, (c) safe access to sampling platforms and (d) utilities for sampling and testing equipment. (5) The stack shall be of sufficient height and diameter and the sample ports shall be located so that a representative test of the emissions can be performed in accordance with the requirements of EPA Method 1 or ASTM D 6522-00 as applicable. (6) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed (7) Unless otherwise indicated by Specific Conditions or regulatory requirements, test reports shall be submitted to the Department no later than 30 days after completion of the test.			

REMARKS:
(A) All compliance tests were conducted in accordance with 20.2.72 NMAC Sections 210.C and 213.
(B) (C) All compliance testing has been conducted in compliance with 40 CFR 60, Subpart A and the EPA Reference Methods Specified in 40 CFR Appendix A.
(D) A RATA Stack Test Protocol was submitted electonically to Stacktest.AQB@state.nm.us on July 18, 2019 for testing originally scheduled for August 20 and 21, 2019. On July 19, 2019, PNM submitted a revised protocol indicating that due to operational constraints, the RATA test dates were rescheduled for July 30 and 31, 2019. A RATA Test Report was submitted electronically to Stacktest.AQB@state.nm.us on August 16, 2019.

B112 Compliance	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. The Department shall be given the right to enter the facility at all reasonable times to verify the terms and conditions of this permit. Required records shall be organized by date and subject matter and shall at all times be readily available for inspection. The permittee, upon verbal or written request from an authorized representative of the Department who appears at the facility, shall immediately produce for inspection or copying any records required to be maintained at the facility. Upon written request at other times, the permittee shall deliver to the Department paper or electronic copies of any and all required records maintained on site or at an off-site location. Requested records shall be copied and delivered at the permittee's expense within three business days from receipt of request unless the Department allows additional time. Required records may include records required by permit and other information necessary to demonstrate compliance with terms and conditions of this permit. (NMSA 1978, Section 74-2-13) B. A copy of the most recent permit(s) issued by the Department shall be kept at the permitted facility or (for unmanned sites) at the nearest company office and shall be made available to Department personnel for inspection			

upon request. (20.2.70.302.G.3 NMAC)

C. Emissions limits associated with the energy input of a Unit, i.e. lb/MMBtu, shall apply at all times unless stated otherwise in a Specific Condition of this permit. The averaging time for each emissions limit, including those based on energy input of a Unit (i.e. lb/MMBtu) is one (1) hour unless stated otherwise in a Specific Condition of this permit or in the applicable requirement that establishes the limit. (20.2.70.302.A.1 and G.3 NMAC)

D. The permittee shall submit compliance certification reports certifying the compliance status of this facility with respect to all permit terms and conditions, including applicable requirements. These reports shall be made on the pre-populated Compliance Certification Report Form that is provided to the permittee by the Department, and shall be submitted to the Department and to EPA at least every 12 months. For the most current form, please contact the Compliance Reports Group at email:reportsgroup.aqb@state.nm.us. For additional reporting guidance see http://www.nmenv.state.nm.us/aqb/enforce_compliance/TitleVReporting.htm. (20.2.70.302.E.3 NMAC)

E. The permittee shall allow representatives of the Department, upon presentation of credentials and other documents as may be required by law, to do the following (20.2.70.302.G.1 NMAC):

(1) enter the permittee's premises where a source or emission unit is located, or where records that are required by this permit to be maintained are kept;

(2) have access to and copy, at reasonable times, any records that are required by this permit to be maintained;

(3) inspect any facilities, equipment (including monitoring and air pollution control equipment), work practices or operations regulated or required under this permit; and

(4) sample or monitor any substances or parameters for the purpose of assuring compliance with this permit or applicable requirements or as otherwise authorized by the Federal Act.

REMARKS:
(A) (E) NMED personnel are allowed full access to the facility and files.
(B) A copy of the most recent permit is kept on file at AGS and is available upon request.
(C) Emissions data is compiled by the CEMS on a 15 minute and one hour basis. Data is archived on a ppm and #/mmbtu basis.
(D) Compliance certifications are compiled and submitted annually to the NMED-AQB and EPA per condition A109(B) of permit P211R2.

B113 Permit Reopening and Revocation	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. This permit will be reopened and revised when any one of the following conditions occurs, and may be revoked and			

reissued when A(3) or A(4) occurs. (20.2.70.405.A.1 NMAC)

(1) Additional applicable requirements under the Federal Act become applicable to a major source three (3) or more years before the expiration date of this permit. If the effective date of the requirement is later than the expiration date of this permit, then the permit is not required to be reopened unless the original permit or any of its terms and conditions has been extended due to the Department's failure to take timely action on a request by the permittee to renew this permit.

(2) Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the Federal Act (the acid rain program). Upon approval by the Administrator, excess emissions offset plans will be incorporated into this permit.

(3) The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the terms and conditions of the permit.

(4) The Department or the Administrator determines that the permit must be revised or revoked and reissued to assure compliance with an applicable requirement.

B. Proceedings to reopen or revoke this permit shall affect only those parts of this permit for which cause to reopen or revoke exists. Emissions units for which permit conditions have been revoked shall not be operated until new permit conditions have been issued for them. (20.2.70.405.A.2 NMAC)

REMARKS:
AGS records indicate that no act of communication of "Permit Reopening and Revocation" from any regulating authority was received during this reporting period.

B114 **Emergencies** (20.2.70.304 NMAC)	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
A. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the permittee, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, or careless or improper operation.			

PART 1 B General Conditions

B. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations contained in this permit if the permittee has demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that: (1) An emergency occurred and that the permittee can identify the cause(s) of the emergency; (2) This facility was at the time being properly operated; (3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and (4) The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of 20.2.70.302.E.2 NMAC. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. C. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. D. This provision is in addition to any emergency or upset provision contained in any applicable requirement.			
REMARKS: (A), (B), (C), (D) No emergencies defined by this requirement were reported at AGS during this reporting period.			
B115 Stratospheric Ozone (20.2.70.302.A.1 NMAC) A. If this facility is subject to 40 CFR 82, Subpart F, the permittee shall comply with the following standards for recycling and emissions reductions: (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices, except for motor vehicle air conditioners (MVAC) and MVAC-like appliances. (40 CFR 82.156) (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment. (40 CFR 82.158) (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program. (40 CFR 82.161)	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below
REMARKS:			

PART 1 B General Conditions

(A) AGS is not subject to 40 CFR 82, Subpart F.

B116 **Acid Rain Sources** (20.2.70.302.A.9 NMAC)	☒ Yes Explain Below	☐ No Explain Below	☐ N/A Explain Below
A. If this facility is subject to the federal acid rain program under 40 CFR 72, this section applies.			
B. Where an applicable requirement of the Federal Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Federal Act, both provisions are incorporated into this permit and are federally enforceable.			
C. Emissions exceeding any allowances held by the permittee under Title IV of the Federal Act or the regulations promulgated thereunder are prohibited.			
D. No modification of this permit is required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit modification under any other applicable requirement.			
E. The permittee may not use allowances as a defense to noncompliance with any other applicable requirement.			
F. No limit is placed on the number of allowances held by the acid rain source. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Federal Act.			
G. The acid rain permit is an enclosure of this operating permit.			

REMARKS:
(A) (B) Procedural Regulatory Statement.
(C) AGS records indicate AGS emissions did not exceed held allowances.
(D) AGS records indicated that no allowances were acquired pursuant to the acid rain program by AGS to authorize an increase in emissions during this reporting period.
(E) AGS records indicate that no allowances were acquired pursuant to the acid rain program by AGS; therefore, allowances were not used as a defense to noncompliance.
(F) AGS records indicate that no allowances were acquired or held pursuant to the acid rain program by AGS.
(G) Procedural Regulatory Statement.

PART 1 B General Conditions

B117 **Risk Management Plan** (20.2.70.302.A.1 NMAC) A. If this facility is subject to the federal risk management program under 40 CFR 68, this section applies. B. The owner or operator shall certify annually that they have developed and implemented a RMP and are in compliance with 40 CFR 68. C. If the owner or operator of the facility has not developed and submitted a risk management plan according to 40 CFR 68.150, the owner or operator shall provide a compliance schedule for the development and implementation of the plan. The plan shall describe, in detail, procedures for assessing the accidental release hazard, preventing accidental releases, and developing an emergency response plan to an accidental release. The plan shall be submitted in a method and format to a central point as specified by EPA prior to the date specified in 40 CFR 68.150.b.	☒ **Yes** Explain Below	☐ **No** Explain Below	☐ **N/A** Explain Below

REMARKS:
(A) The facility uses aqueous ammonia less than 20% in water solution; therefore, AGS is not subject to the federal risk management program under 40 CFR 68.

Part 2

ACC Deviation Summary Report for Permit P211R2

1. Are there any deviations identified in Part 1, Column 5. If NO, no further information is required on Part 2 of this form. If YES, answer question 2 below.	☒ Yes ☐ No
2. Have all deviations identified in Part 1, Column 5 been reported to the NMED as required by 20.2.7 NMAC or in a Semi-Annual Monitoring Report (20.2.70.302.E.1 NMAC)? If Yes, no further information is required on Part 2 of this form. If No, answer question 3 below and enter the required information in the Deviation Summary Table for each deviation not yet reported to the NMED.	☒ Yes ☐ No
3. Did any of the deviations result in excess emissions? For excess emissions deviations that have not previously been reported per requirements of 20.2.7 NMAC, a completed Excess Emission Form for each deviation must be attached to this report.	☐ Yes ☐ No

Deviation Summary Table for deviations not yet reported.

No.	Applicable Requirement (Include Rule Citation)	Emission Unit ID(s)	Cause of Deviation	Corrective Action Taken
1				
2				
3				
4				
5				

Deviation Summary Table (cont.)

	Deviation Started		Deviation Ended					Did you attach an excess emission form?
No.	Date	Time	Date	Time	Pollutant	Monitoring Method	Amount of Emissions	
1								☐ Yes ☐ No
2								☐ Yes ☐ No
3								☐ Yes ☐ No
4								☐ Yes ☐ No
5								☐ Yes ☐ No

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

NA

Section 22: Certification

Company Name: Public Service Company of New Mexico

I, Randy Pickering, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 11 day of June, 2020, upon my oath or affirmation, before a notary of the State of New Mexico.

*Signature — Date: 6/11/20

Randy Pickering — Printed Name

SNM Director Plants — Title

Scribed and sworn before me on this 11th day of June, 2020

My authorization as a notary of the State of New Mexico expires on the 4th day of February, 2021.

Graciela R. Gabaldon — Notary's Signature — Date: 6/11/2020

Graciela R. Gabaldon — Notary's Printed Name

OFFICIAL SEAL
Graciela R. Gabaldon
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires: 3/4/21

*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC.

MONTROSE
AIR QUALITY SERVICES

June 12, 2020

Mr. Joseph Kimbrell
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87507-3313

Subject: Operating Permit Renewal Application for Permit #P-211R2, Afton Generating Station (AGS)

Dear Mr. Kimbrell:

Attached please find two (2) hardcopies and two (2) electronic (CD) copies of the 20.2.70 NMAC Permit Renewal Application for Permit #P-211R2 and Acid Rain Renewal Application for Permit #P-211AR3, PNM's Afton Generating Station (AGS). This letter is attached to the application copy that has the original notarized signature page (Section 22).

This application is to fulfill the renewal requirements of 20.2.70.300.B.2NMAC to submit a renewal application 12 months prior to expiration of the permit. No physical changes or changes in the method of operation have been made to AGS since Title V Operating Permit #P-211R2 was issued. Updates to this permit include monitoring conditions that were issued under Technical Revision Permit PSD2466-M4R1 signed January 9, 2019. All information is being submitted on the most recent versions of the Universal permit application forms.

Please let me know if you have any questions or need additional information.

Sincerely,

Paul Wade

Paul Wade
Sr. Project Manager
Montrose Air Quality Services, LLC

Cc: Robin DeLapp, PNM

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