DRAFT Statement of Basis - Narrative
NSR Permit

Company: El Paso Electric Company
Facility: Rio Grande Generating Station
Permit No(s): 1554M1
Tempo/IDEA ID No.: 122 - PRN201000001
Permit Writer: Cember Hardison

Fee Tracking

Tracking	**NSR tracking entries completed:** [x] Yes [] No
	NSR tracking page attached to front cover of permit folder: [x] Yes [] No
	Paid Invoice Attached: [] Yes [x] No
	Balance Due Invoice Attached: [x] Yes [] No
	Invoice Comments:

Permit Review	**Date to Enforcement:** 12-3-10	**Inspector Reviewing:** Judy Fisher
	Date Enf. Review Completed: 12-10-10	**Date of Reply:** 12-10-10
	Date to Applicant: 12-3-10	**Date of Reply:** 12-13-10
	Date of Comments from EPA: N/A	**Date to EPA:** N/A
	Date to Supervisor:	

1.0 Plant Process Description:
This facility is an electric power generating station located in Sunland Park, Doña Ana County, NM. El Paso Electric (EPE) currently uses three dry bottom, wall fired natural gas steam boilers, 6, 7, and 8, to run three turbine generators driven by high pressure, superheated steam. Total electric power production from the boilers is 288 MW gross, and 245 MW annual average. A natural gas fueled simple cycle GE Energy turbine proposed in this application would be used to generate 95.3 MW for a total annual average of 340.3 MW from the entire facility.

2.0 Description of this Modification:
Permittee wants to construct a 95.3 MW natural gas fired simple cycle turbine used to generate electricity. The turbine would increase the annual average electric power production from 245 MW to a total annual average of 340.3 MW. This facility was constructed before 1972, before promulgation of the NSR regulation, and had not been modified until the addition of this turbine. Therefore, this is the first NSR permit for this facility. NSR conditions will apply only to the new equipment. Conditions to existing equipment will be applied through the Title V (TV) permit.

Facility modifications would include:
- Construct Unit GT-9, a 95.3 MW/142,576 hp natural gas fire simple cycle turbine, model GE LMS 100PA

b. Operation and maintenance of the Flue Gas Recirculation (FGR) system at the Unit 8 boiler, provided the FGR system is installed on unit 8 in accordance with paragraph 11 (FGR was approved and operating in July 8, 2010);
c. An averaging time [rolling ave.] of 3 hours for the 0.3 pound per million BTU maximum emission rate for NO2 set forth in Condition 3.1 of the existing operating Permit as provided in Paragraph 19; and
d. A precision of 2 significant figures for the 0.3 (0.30) pound per million BTU maximum emission rate for NO2 set forth in Condition 3.1 of the existing operating permit.
Paragraph I of the Consent Decree also requires:
I.B.3. Proper and efficient calibration of CEMs including installation of software so that the calibration periods are clearly indicated in data recorded by the system.
I.C.4. Using actual sulfur content data [in fuel], in accordance with 40 CFR 75, Appendix D, to calculate SO2 emissions for each unit (boiler).

EMISSIONS ESTIMATES & COMPLIANCE

Boilers
Boiler NOx pound per hour (pph) and ton per year (tpy) emission limits were determined by converting the limit of 0.30 lb/MMbtu (20.2.33 NMAC limit) using their respective heat rate capacities (MMBtu/hr). Boiler 8 pph emissions used 0.30 lb/MMbtu x 1535 MMBtu/hr and ton per year (tpy) NOx emissions used 0.257 lb/MMbtu x 1345 annual average MMBtu/hr. Permittee must keep the boiler 8 heat rate capacity to 1535 MMbtu/hr maximum and 1345 MMbtu/hr annual average. If boiler 8 is operated at a higher heat rate capacity resulting in an increase in emissions, the change in operations must be permitted and would be considered a modification under NSR rules.

Boiler CO pph emission limits were determined using historical continuous emissions monitoring system (CEMS) data and tpy CO emissions were determined with EPA's AP42 1.4-1.

Boiler CO and NOx Compliance: Permittee will conduct initial compliance tests and use CEMS to monitor NOx, CO, and CO2 from the boilers. 40 CFR 75 requires CEMs for NOx & CO2. Permittee must demonstrate compliance with both the lb/hr and tpy NOx and CO limits using the CEMs hourly emission data and actual number of hours operated over 12 months. NOx and CO start up and shut down emissions have historically been included in the facility emission limits.

Boiler PM and VOC Emission Limits & Compliance: Emissions were determined with EPA's current AP42 1.4-2. Applicant used Total PM emission factor (EF) from AP42 1.4-2 and set TSP = PM10 = PM2.5. Per AP42 1.4-2 footnote C, total, condensable, and filterable PM is considered to be <= PM10. VOC emissions were also determined using AP42 1.4-2. Compliance with the VOC & PM emission limits will be demonstrated through compliance with the NOx and CO emission limits.

Boiler SO2 Emission Limits & Compliance: SO2 emission limits for boilers were determined using the gas analysis sulfur detection limit of 0.03 gr/100 scf plus a safety factor of 1.5 for pph

- 3.01 pounds NOx 7 minutes, per manufacturer start up data
- 15.03 pounds NOx 20 minutes rest of start up cycle. Used manufacturer worst case uncontrolled NOx w/ 44% control (81.07pph x (1-0.44) x (20 min/60 min))
- 4.9 pounds NOx 27 minutes steady state. Used manufacturer worst case controlled NOx emissions for 33 minutes (8.92 pph x 33min/60min).
- Total start up NOx for 1 hour: 3.01 + 15.03 + 4.9 = **22.9 pph NOx**

NOx Shut Down emissions:

- 0.44 pounds NOx 10 minutes. 3.97 pph manufacturer shut down data (3.97 pph x (100-88.8% control).

CO Start up Emissions determined as follows:

- 10.21 pounds CO for 7 minutes, per manufacturer start up data
- 7.56 pounds CO for 20 minutes remaining start up cycle. Used manufacturer worst case controlled CO emissions (22.69 pph x 20min/60min)
- 12.5 pounds CO for 33 minutes steady state. Used manufacturer worst case controlled CO emissions for rest of hour (22.68pph x 33 min/60 min)
- Total start up CO for 1 hour: 10.21 + 7.56 + 12.5 = **30.2 pph CO**

CO Shut Down emissions:

2.97 pounds CO 10 minutes. 13.21 pph x (100-77.5% control)

Annual NOx and CO Start up and Shut down Fraction:

Applicant requested one start up/shut down per day plus one additional per week for a total of 417 start up/shut downs per year. Actual operations may not require this many start ups.

- NOx Annual SU/SD: (18.04 lbs SU + 0.44 lbs SD) x 1ton/2000lb x 417 times/yr = 3.85 tons/yr
- CO Annual SU/SD: (17.77 lbs SU + 2.97 lb SD) x 1ton/2000lb x 417 times/yr = 4.33 tons/yr

Turbine NOx & CO compliance with both steady state and start up and shut down emissions will be shown using continuous emissions monitoring system (CEMs), initial EPA Method compliance tests, and periodic Relative Accuracy Test Audit (RATA) tests required by Acid Rain regulations (40 CFR 75).

Turbine VOC compliance will be shown by demonstrating compliance with NOx and CO limits.

Turbine NH3 emissions (ammonia slip) & compliance: Ammonia emissions from the turbine's SCR are based upon manufacturer emissions data. Excess ammonia slip can occur when catalyst temperatures are not optimum for chemical reaction and/or too much ammonia is injected. Therefore, compliance with NH3 pph and tpy emission limits will be met by operating the SCR system with optimal temperatures and ammonia injection according to manufacturer recommendations and monitored & recorded using the SCR/COR programmable logic control system (PLC).

Turbine PM Emissions (see GE document dated 5-28-10): GE Energy guaranteed total PM10 emissions to 5.9 lb/hr (5.5 pph from turbine + 0.4 pph from SCR & Cat Oxidizer). GE PM10 emissions assume a sulfur content of no more than 0.25 gr/100 scf in fuel and at 50% to 100% of steady state loads. Filterable PM10 are 2.1 pph and condensable are 3.8 pph. El Paso Electric must follow GE Guidelines for PM10 Guarantee & Testing. Manufacturer provided emissions

A. Common Ownership or Control: Are the surrounding or associated facilities under common ownership or control? **No**

B. Contiguous or Adjacent: Are the surrounding or associated facilities located on one or more contiguous or adjacent properties? **No**

3. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, or 20.2.74 NMAC applicability purposes? **Yes**

4.0 **PSD Applicability:**

A. The source an existing PSD Major Source that has never undergone a PSD review.

B. The project emissions for this modification are not significant.

Pollutant	Emission increase (tpy)	Significance Level (tpy_
NOx	39.1	40.0
CO	94.1	100.0
VOC	9.2	40.0
SOx	0.36	40.0
TSP (filterable)[1]	10.6	25.0
PM10 (filterable)[1]	9.3	15.0
PM2.5 (filterable)[1]	9.2	10[2]

1. From FR Vol. 73, NO. 96, May 16, 2008, page 28334 - Prevention of Significant Deterioration and NA NSR permits issued after the effective date of this NSR implementation rule but before the end of EPA's transition period for the NSR program are not required to account for condensable emissions in PM2.5 or PM10 emissions limits. After January 1, 2011 (or any earlier date established in the upcoming rulemaking codifying test methods) EPA will require that NSR permitees include limits of condensable emissions, as appropriate. Note: Rule may not become effective until after incorporation into AQB's SIP.

EPA established the transition period to among other items, allow time to promulgate revised EPA test methods for condensable PM (Test 202) and fine particulate matter (PM2.5) (Test 201A).

AQB requires permittees to include the condensable fraction (if estimation method is available) to be reported and included in air dispersion modeling to demonstrate compliance with standards, but follows EPA's transition criteria to exclude condensables in NSR applicability.

2. Since a PM2.5 significance level has not yet been incorporated into SIP approved 20.2.74 NMAC, AQB uses the PM2.5 significance level of 10 tpy which is the significance level in 40 CFR 51.166.

C. Netting is not required since the project emissions are not significant.

D. BACT is not required for this modification since it is a minor, not a major modification.

5.0 **History (In descending chronological order, showing NSR and TV):** *The asterisk denotes the current active NSR and Title V permits that have not been superseded.

Permit Number	Issue Date	Action Type	Description of Action (Changes)

Permit Number	Issue Date	Action Type	Description of Action (Changes)
D-101 CV-2008-02777	7-31-09	Consent Decree	Consent Decree D-101 CV-2008-02777 for NOV ELP-0122-0501 for violating CO, NOx, and SO2 emissions limits. Applies to boilers 6, 7, and 8. Corrective Actions: tune each boiler at the Rio Grande Generating Station annually; report performance of tuning and the before and after tuning NOx lb/MMbtu and CO pph emissions; conduct CEMs calibrations, install software that records the calibrations, and submit verification of such in 30 days; monitor sulfur dioxide using actual sulfur content data in accordance with 40 CFR 75, Appendix D to calculate SO2 emissions and notify of such within 30 days; install flue gas recirculation (FGR) on boiler 8 (EPN-1). Implementation of Permit Conditions: maximum allowable NO2 emission rate (20.2.33 NMAC 0.3 lb/MMbtu) for each boiler 6, 7, & 8 shall be interpreted as having an averaging time of 3 hours and shall be interpreted as having 2 significant figures (0.30 lb/MMbtu – vs – 0.3 lb/MMbtu). Integration with Permit - submit application in 180 days to incorporate the following conditions: annual tuning of 3 boilers as required by section 1 of consent decree; operation and maintenance of boiler 8 (EPN-1) FGR; state maximum NO2 emission limit of 0.3 lb/MMbtu (20.2.33 NMAC) using 2 significant figures 0.30 lb/MMbtu and determined with a 3 hr-averaging time.
P127R1M1	6-6-08	TV administrative Revision	Change responsible official to Mr. Andres Ramirez.
P127-A-R1	9-22-05	TV Renewal	Issued 5 year T-IV permit for Boiler Units 6, 7, and 8 with 40 CFR 72.9(c)(1) allowances and ORIS code 2444. NOx limitations in 40 CFR 76 are only applicable to coal-fired units and thus do not apply to this facility.
P127R1	9-22-05	TV Renewal	Scenario 1 (natural gas): **NOx 3342.4 tpy, CO 3504.0 tpy, VOC 19.8 tpy, SOx 29.1 tpy, PM10 8.7 tpy, Chlorine 4.1 tpy, formaldehyde 1.1 tpy, and hexane 19.9 tpy.** Scenario 2/3 (diesel): NOx 3343.2 tpy, CO 3777.8 tpy, VOC 21.6 tpy, SOx 227.4 tpy, PM10 17.8 tpy, Chlorine 4.1 tpy. Permitted Units 6, 7, and 8. Number 2 diesel fuel is available for backup fuel in the event of a gas supply curtailment. The permit places restrictions on unit 8 limiting the output to 145 Megawatts average output. This permit is a renewal of the P127M1.
P127M1-Rev	8-31-05	TV Revision	Scenario 1 (natural gas): **NOx 3343.7 tpy, CO 3504.0 tpy, VOC 60.4 tpy, SOx 6.7 tpy, TSP 83.4 tpy, Chlorine 4.1 tpy.** Scenario 2 (diesel): NOx 3376.2 tpy, CO 3536.9 tpy, VOC 61.1 tpy, SOx 546.8 tpy, TSP 135.7 tpy, Chlorine 4.1 tpy. A permit reopening to adjust emission limits to more accurately reflect the potential to emit for the 2 operating scenarios.

In addition to AQB's public notice requirements, the AQB contacted a Sunland Park citizen by phone, sent 172 public notice letters in Spanish and English to Sunland Park citizens and government officials, sent 116 notices of a community meeting using an updated address list of Sunland Park citizens and government officials, and held a community meeting on September 25, 2010 in Sunland Park. About 17 adults and 6 children attended the community meeting.

Based upon the public response received as of November 29, 2010, the AQB recommended to the Department Secretary that no hearing be held.

Between December 8 and 12, 2010, three additional letters and 62 signatures requesting a hearing were received after the hearing recommendation.

Verification of Applicant's Required Public Notice – the applicant has met all regulatory notification requirements as follows:
NOTE: Per New Mexico State's Office of General Council March 2002 interpretation, when a municipality, Indian Tribe, or county is located outside of New Mexico, public notification is not required if outside of the state boundaries. This legal interpretation would also apply to property owned outside of New Mexico.
20.2.72.203.B(1)(a) Notified by certified mail all property owners found on the Doña Ana County property assessment records that are located within 100 feet of the facility's property boundary. Rio Grande Generating Station is located in Sunland Park city limits and has a population of more than 2500 persons.
20.2.72.203.B(2) Notified, by certified mail, municipalities, Counties, and Tribes located within 10 miles of the facility. The only County, New Mexico Municipalities, and Tribes within 10 miles are, Doña Ana County and Sunland Park. All other New Mexico communities, such as Santa Teresa and Canutillo, are either not incorporated municipalities, are greater than 10 miles from the property boundary, are located in the State of Texas, or are located in the Country of Mexico.
20.2.72.203.B(3) Published once in a newspaper of general circulation in the [New Mexico] county where the facility is located and should appear in the legal or classified section and in one other location of the newspaper to provide the most effective notice. Applicant published two English language ads in the El Paso Times and two Spanish language ads in the El Diario de El Paso.
20.2.72.203.B(4) The applicant certified that public notice was posted on June 15, 2010 at four publically accessible locations near the source including the facility entrance at Rio Grande Power Station Entrance, Sunland Park Community Library, Sunland Park City Hall, and US Post Office at 3500 McNutt Rd.
20.2.72.203.B(5) The applicant provided an email of the public service announcement request submitted to KGRT, a radio station in Las Cruces. The public notice content shown in the email met the requirements of 20.2.72.203.D.

AQB Public Notice:
20.2.72.206.A(7) Mailed a copy of AQB's public notice on October 7, 2010 to the State of Texas since it is within 50 km of the facility.
20.2.72.206.A(3) Published both an English language and Spanish language public notice in the Las Cruces Sun News on October 10, 2010. The permit writer verified with the Las Cruces Sun News that there were subscribers and newspaper stands in Sunland Park. At the 9-25-10 community meeting, the permit writer stated the PN would probably be published in the El Paso Times, but AQB does not have a purchase order for El Paso Times so had to use the Las Cruces Sun News.
20.2.72.206.A(4) Public notice was sent to individuals maintained on the department's list of individuals and organizations who have indicated in writing they would like to be notified of all permit applications.

7.0 Compliance Testing:

Unit No.	Compliance Tests Already Completed	Test Dates
Boilers 6, 7, 8	Relative Accuracy Testing Audit (RATA) Tests for NOx and CO2 CEMs as Required by 40 CFR 75, Appendix B	8-13-09

		promulgated when maximum production rate achieved or 180 days have past from start up, time line starts from the promulgation date of the final revised test methods.
Turbine GT-9	NOx method test per 40 CFR 60.4400, Subpart KKKK requirements.	Per 40 CFR 60.4400(a) and 40 CFR 60.8: conduct initial performance tests and subsequent tests on an annual basis, no more than 14 calendar months following the previous test. Per 60.440(b)(5) the CEM performance evaluation (RATA) may be conducted as part of the initial performance test.

8.0 Startup and Shutdown:

A. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? **Yes**

B. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? Not applicable. **Yes**

C. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? **Yes**

D. Were emissions from startup, shutdown, and scheduled maintenance operations calculated and included in the emission tables? **Yes.** Start up and shut down emissions are included in the emission limits in Table 2-E for the boilers and turbine.

9.0 Modeling:

El Paso Electric's modeling shows that ambient air quality standards for NOx, CO, TSP, PM10, PM2.5, and SO2 will be met. Ambient impacts of ammonia emissions (NH3) are less than 1/100th of the occupational exposure limit (OEL) in 20.2.72.502 NMAC. NH3 is a New Mexico TAP and if modeling shows that the 8-hour average ambient concentration of the toxic air pollutant exceeds 1/100th of its OEL, a health assessment is required. For NH3 the OEL is 18mg/m^3 and so 1/100 of the OEL is 0.18mg/m^3. The maximum impact of NH3 emissions from Rio Grande Generating Facility is 0.0286 mg/ m^3.

El Paso Electric modeled NOx, CO, TSP, PM10, PM2.5, and NH3 emissions. AQB determined that modeling SO2 emissions was not required to show compliance with SO2 standards as these emissions are less than 1 pph and were previously modeled at a much higher emission rate. Modeling included emissions from surrounding stationary sources in NM and Texas within 65 km of the facility and included background concentrations for NO2, CO, TSP, PM10, and PM2.5 for Doña Ana County.

20 NMAC	Title	Applies (Y/N)	Comments
2.61	Smoke and Visible Emissions	Y	**Boilers 6, 7, 8, and turbine GT-9** **20.2.61.109 limits opacity** from emissions stacks to 20%. **20.2.61.114 Opacity is determined** using 40 CFR 60, Appendix A Method 9 for a minimum of 10 minutes.
2.70	Operating Permits	Y	PTE is > 100 TPY. Source is TV major for NOx, CO, TSP, PM10, and PM2.5 as defined at 20.2.70.200 NMAC.
2.71	Operating Permit Fees	Y	Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC.
2.72	Construction Permits	Y	20.2.72.200.A(2) NMAC
2.73	NOI & Emissions Inventory Requirements	Y	Applicable to all facilities that require an NSR and/or a TV permit.
2.74	Permits-Prevention of Significant Deterioration	N	Project emissions from addition of new turbine, cooling tower, and ancillary equipment are not significant (20.2.74.502 NMAC) and therefore the project is not a major modification as defined in 20.2.74.7.AD NMAC. According to the applicant, all units, before addition of turbine GT-9, were constructed before and have not been modified since the effective date of this NMAC (7-20-95) and the 1977 CAA Amendments when PSD was first implemented (40 CFR 52.21, 6-19-78). Source is listed in Table 1 of 20.2.74.501 and is a major source as defined in 20.2.74.7.AF(1) but has never undergone a PSD review. Any major modifications to this facility (as defined in 20.2.74.7.AD) will be subject to PSD review.
2.75	Construction Permit Fees	Y	Facility is subject to 20.2.72 NMAC so is subject to permit fees. Since it is a TV source, is not subject to NSR annual fees in accordance with 20.2.75.11.E an annual NSR enforcement and compliance fee shall not apply to sources subject to 20.2.71 NMAC.
2.77	New Source Performance	Y	Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60, as amended through December 31, 2009.
2.78	Emissions Standards for HAPs,	N	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61.
2.79	Permits – Nonattainment Areas	N	The facility is not subject to non-attainment permitting.

20 NMAC	Title	Applies (Y/N)	Comments
2.84	Acid Rain Permits	Y	**Boilers 6, 7, 8 and turbine GT-9.** This facility is subject to Title IV of the federal act and federal acid rain permitting requirements adopted here by reference. **20.2.84.8 ADOPTION BY REFERENCE OF FEDERAL ACID RAIN PERMITTING REQUIREMENTS:** Except as otherwise provided in 20.2.84.10 NMAC, the portions of the federal acid rain program promulgated by the United States environmental protection agency under 40 CFR Part 72 (including all portions of Parts 73, 74, 75, 77 and 78 referenced therein) and 76, and amended in the federal register through May 18, 2005, to implement Sections 407 (nitrogen oxides emission reduction program), 408 (permits and compliance plans) and 412 (monitoring, reporting and recordkeeping requirements) of the federal act, are hereby incorporated into this part. **20.2.84.10 MODIFICATIONS AND EXCEPTIONS:** The following modifications or exceptions are made to the incorporated federal rules: **A.** for purposes of this part, the term **"permitting authority" shall mean the department**; and **B.** requirements imposed on affected sources under the federal Act shall not be subject to NMSA 1978, Section 74-2-8 [Variances].
2.85	Mercury Emission Standards and Compliance Schedules for Electric Generating Units	N	This applies to electric power generation units that combust coal or coal-derived fuel. This facility does not combust coal or coal-derived fuel.
2.86	Best Available Control Technology for Mercury At New Power Plants	N	This facility does not combust coal or coal-derived fuel. The part applies to all coal-fired power plants within the jurisdiction of the environmental improvement board, except for coal-fired power plants constructed and generating electric power and energy before July 1, 2007.
2.87	Greenhouse Gas Emissions (GHG) Reporting	N/A	**Regulation repealed November 10, 2010 and replaced with 20.2.300 Reporting of Greenhouse Gas Emissions NMAC. Change effective January 1, 2010. 20.2.300 does not yet include the most recent amendments to the federal rule.** **Under old 20.2.87: Boilers 6, 7, 8** emissions were previously reported. Permittee was required to determine if any trivial, insignificant activities, or any other sources may be subject to 20.2.87 2009 and 2010 GHG reporting years as the reporting requirements changed for the second (2009), third (2010) years.

NSPS Subpart (40 CFR 60)	Title	Applies (Y/N)	Comments
emission monitoring systems (CEMS) at the time of installation or soon after. Permittee will need to determine the applicable performance specification for the GT-9 CO CEMS: Performance Specification 4—Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources Performance Specification 4A—Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources Performance Specification 4B—Specifications and Test Procedures for Carbon Monoxide and Oxygen Continuous Monitoring Systems in Stationary Sources			
40 CFR 60, Appendix F	Quality Assurance Procedures for CEMS	N/A	**CO CEMS Turbine GT-9:** The permittee is not subject to this part due to a federal NSPS, but uses this procedure to audit the CO CEMS.
1.1 Applicability. Procedure 1 is used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by any continuous emission monitoring system (CEMS) that is used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation. The CEMS may include pollutant (e.g., $S0_2$and $N0_x$) and diluent (e.g., 0_2or $C0_2$) monitors.			
40 CFR 60, Subpart D	Subpart D--STANDARDS OF PERFORMANCE FOR FOSSIL-FUEL-FIRED STEAM GENERATORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER AUGUST 17, 1971	N	Per Applicant: EPN-3/boiler 6 constructed 1-1-57 EPN-2/boiler 7 constructed 1-1-58 EPN-1/boiler 8 constructed 1-10-68 Per applicant, no units have been reconstructed or modified as defined. All units were constructed before 1971
40 CFR60.40a, Subpart Da	Performance Standards for Electric Utility Steam Generating Units, for which construction commenced after 9-18-78.	N	All units constructed before 1978 Per applicant no units have been reconstructed or modified.
40CFR60.40b, Subpart Db	Electric Utility Steam Generating Units (after 6-19-84)	N	All units constructed before 1984. Per applicant no boilers have been reconstructed or modified.
40 CFR 60.40c, Subpart Dc	PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	N	Applies to units with less than maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less. Each of these units has a capacity greater than that.
40 CFR 60, Subpart KKKK	Subpart KKKK--STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES	Y	**Turbine GT-9.**

MACT Subpart (40 CFR 63)	Title	Applies (Y/N)	Comments
	Stationary Combustion Turbines		
Proposed NESHAP	Emission standards for Area Source Industrial Commercial & Institutional Boilers: Proposed Rule 4-30-10	N according to 4-30-10 Proposed Rule	**Link to 4-30-10 FACT Sheet** **Link to 4-30-10 Proposed Rule** The facility no longer combusts diesel fuel as a back up fuel, therefore, it is not subject to the new rule as proposed on 4-30-10. Proposed area source NESHAP applies to large or small boilers that combust coal, oil, or biomass boilers. Area source boilers operating with natural gas are not subject to the proposed NESHAP dated 4-30-10.
Proposed NESHAP	Emission Standards for Major Source Industrial, Commercial, and Institutional Boilers & Process Heaters: Proposed Rule 4-30-10	N according to 4-30-10 Proposed rule	Link to 4-30-10 FACT Sheet Link to 4-30-10 Proposed Rule The facility is not a major HAP source, therefore, it is not subject to the rule as proposed on 4-30-10. The proposed major source NESHAP applies to large and small boilers at major HAP sources that combust natural gas, fuel oil, coal, biomass, refinery gas or other gas to produce steam. The proposed rule also applies to process heaters.
40 CFR 63 Subpart DDDDD	Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	N	This is not a major HAP source and according to 63.7491(c) **Boilers 6, 7, and 8** are exempt from this vacated MACT.
The facility is exempt from the vacated MACT since they consist of electric utility steam generating units. Also, the NESHAP applies to major HAP sources only. EPA has completed promulgation of NESHAP for all listed categories in 2005 (per EPA fact sheet Proposed Amendments Outlining Requirements for States to Set Case-by-Case Emission Standards When NESHAP are Not in Place (CAA Section 112(J) Rule) on TTN OAR website 2-17-10). Therefore, the facility is not subject to Case-by-Case MACT per 112(J) (listed source with no MACT promulgated or vacated) or to Case-by-Case MACT per 112(g) (Major HAP source not on list but with no EPA MACT).			

Miscellaneous	Title	Applies (Y/N)	Comments
	Permit Programs		full SIP approved authority and Title V is administered under 20.2.70 NMAC.
40 CFR 72	Title IV – Acid Rain Program	Y	**Boilers 6, 7, and 8 and turbine GT-9 are subject.** [AQB is the permitting authority and EPA is the administrator] **Note:** Acid Rain program identifies units as boilers 6, 7, and 8 and not by EPN-1, 2, and 3. **Turbine GT-9** will be a new unit per 72.6(a)(3)(i). **Note: The permittee is removing the option to operate with diesel fuel. The facility will only operate using natural gas.**
72.6(a) Applicability Boilers 6, 7, and 8 are "existing utility units" (72.2 definitions) and listed in Table 2 – Phase II Allowance Allocations in Subpart 73.10 and are not exempt per 72.6(b). 72.6(a) Each of the following units shall be an affected unit, and any source that includes such a unit shall be an affected source, subject to the requirements of the Acid Rain Program: (2) A unit that is listed in table 2 or 3 of §73.10 of this chapter and any other existing utility unit, except a unit under paragraph (b) of this section. Upon application submittal, permittee certified that they hold SO2 allowances in accordance with 72.9(c)(1). **72.2 Definitions.** ***Acid Rain Program*** means the national sulfur dioxide and nitrogen oxides air pollution control and emissions reduction program established in accordance with title IV of the Act, this part, and parts 73, 74, 75, 76, 77, and 78 of this chapter. ***Administrator*** means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative. ***Permitting authority*** means either: **(1)** When the Administrator is responsible for administering Acid Rain permits under subpart G [phase II implementation] of this part, the Administrator or a delegatee agency authorized by the Administrator; or **(2)** The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to administer Acid Rain permits under subpart G of this part and part 70 of this chapter.			
40 CFR 73	Title IV – Acid Rain Sulfur Dioxide Allowance Emissions	Y	**Boilers 6, 7, and 8 are subject** [EPA is the administrator]
73.2(a) applies to owners, operators, & designated representatives of affected sources subject to 72.6. **73.1 Scope:** 40 CFR 73 establishes requirements and procedures for allocating sulfur dioxide allowances and their tracking, holding, transferring, offsetting, selling, and other requirements. **Phase II SO2 allowances are found in 73.10 (b) Table II: Phase II allowances (2)** The Administrator will allocate allowances to the compliance account for each source that includes a unit listed in table 2 of this section in the amount specified in table 2 column F to be held for the years 2010 and each year thereafter.			
40 CFR 75	Title IV – Acid Rain Continuous Emissions Monitoring	Y	**Boilers 6, 7, and 8 and Turbine GT-9** Applicant defines, boilers as a gas-fired non-peaking units so Part 75 only requires SO2, NOx, and CO2 emissions monitoring. Although NOx emission reduction (Part 76) is not required for gas-fired units, NOx monitoring is still

Miscellaneous	Title	Applies (Y/N)	Comments
and record NOx **in ppm**, O2 or CO2 in percent, **and** NOx emission rate **in lb/MMbtu. 75.12** are the specific provisions for monitoring NOX emission rate. **CO2 monitoring** **75.10(a)(i)** Permittee measures CO2 emissions using the first of 3 options which requires a CO2 CEMs and flow monitoring system with an automated DAHS to measure and record CO2 concentration in ppm, volumetric gas flow in scfh, and CO2 mass emissions in tons/hr. **Note: 75.10(d)(1)** CEMs must be capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-min interval. The owner/operator shall reduce all emissions & volumetric flow data collected by the monitors to hourly averages. Hourly averages shall be computed using at least one data point in each fifteen minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. **Consent decree requires 20.2.33 NOx lb/MMbtu boiler 6, 7, & 8 emissions be limited as 3-hr averages rather than 1-hour ave (requested by El Paso Electric), 40 CFR 75 requires NOx lb/MMbtu emissions be reported as hourly averages, and maximum lb/hr (not 3-hr ave) emission limits are required to demonstrate compliance with ambient standards. El Paso Electric calculated the lb/hr emissions for the boilers used in modeling by converting from 0.30 lb/MMbtu. Permit writer verified with Robert Samaniego Feb 2010, that due to the requirements of the consent decree, the permit must include the 3-hr average NOx emission limit (lb/MMbtu) for boilers 6, 7, and 8. Since a 1-hour NOx emission limit (lb/hr) is also required, the permit will have two short term NOx limits, 1-hr and 3-hr for boilers 6, 7, and 8.**			
40 CFR 76	Title IV – Acid Rain Nitrogen Oxides Emission Reduction Program	N	Title IV NOx emission reduction program applies to coal-fired units. This facility does not combust coal, but combusts natural gas.
40 CFR 77	Title IV – Acid Rain Offset Plans for Excess Emissions SO2	Y	**Applies to boilers 6, 7, & 8 and turbine GT-9. Currently, the boilers 6, 7, and 8 have SO2 Phase II Allowance.** [EPA is the administrator] (a) *Applicability.* The owners and operators of any affected source that has excess emissions of sulfur dioxide in any calendar year shall be liable to offset the amount of such excess emissions by an equal amount of allowances from the source's compliance account.
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	N	According to the applicant, the facility does not "service", "maintain" or "repair" class I or class II appliances nor "disposes" of the appliances.
40 CFR 98	PART 98--MANDATORY GREENHOUSE GAS REPORTING	Y	**Boilers 6, 7, 8, and turbine GT-9** are subject. (40 CFR 98.2(a)(1)). EPA, not AQB, is the administrator of this regulation.
Boilers 6, 7, 8, and turbine GT-9 are subject per **98.40(a), Subpart D** electricity generating units subject to the requirements of the Acid rain Program and any others that are required to monitor and report EPA CO2 emissions year round according to 40 CFR 75. **GHGs to Report 98.42 (a)** must report the annual mass emissions of CO2, N2O, and CH4			

Table 103A Applicable Requirements – Requirements applicable to units subject to NSR.

A104.B – The applicant requested 45 days from source start up, rather than 15 days from source installation, to submit the TBD values in Table 104.A. Permit writer verified with enforcement that extending the deadline submit TBD values should not cause enforcement issues due to the source type (not portable or allowed to replace units). Except for submitting the serial numbers of the new units, the permittee is still required to meet the 15 day requirement in Condition B110 since the other deadlines are required by 20.2.72.212 NMAC.

Table 105 Control Equipment – Controls subject only to NSR units.

A106 Allowable Emissions – Includes emission limits applicable only to unit subject to NSR.

A106.C – Changed NSPS KKKK sulfur requirements from a specific lb/MMBtu to just referencing the sulfur limits in 40 CFR 60.3440(a). The reference to the lb/MMBtu limit confuses the issue with general condition B112.C especially since the permittee will most likely meet the sulfur monitoring exemption in NSPS KKKK since the fuel sulfur content is so low.

A108.A - Compliance with Ton Per Year Emissions – Turbine and cooling tower may operate during any hour of the day, however, operating at 8760 hrs/yr would put emissions over the allowable tpy limits. Therefore, the permittee must track ton per month and ton per year emissions to stay in compliance with emission limits.

A115.A – Revisions to general conditions B111(7) and (8) requiring sampling lines be installed. Applicant requested that these conditions be deleted since sampling lines require maintenance and due to other issues and it would be unlikely that the department would ever use them for a facility with periodic emissions testing and CEMS. Permit writer verified with enforcement section that the sampling lines are typically used for portable analyzers so would never be required for this facility. Therefore, conditions B111(7) and (8) were revised to require the sampling lines only if requested by the department and within 30 days of request.

A401B – Turbine CO and VOC Control device: Operational requirements of the oxidation catalyst to reduce turbine CO and VOC emissions. The oxidation catalyst is not fully functional at operating temperatures lower than 700 deg F which takes up to 10 minutes. The permittee calculated emissions assuming that CO and VOC emissions are not reduced with the oxidation catalyst for the first 7 minutes. Therefore, the condition states that the oxidation catalyst does not need to be reducing CO and VOC emissions the first 7 minutes after startup of the turbine. These additional uncontrolled emissions are included in the pph emission limit in Table 106.

A401C – Turbine NOx Control – Operational requirements for SCR and meeting NH_3 emissions (ammonia slip). Anhydrous ammonia is more toxic than aqueous ammonia, and aqueous ammonia at a concentration of 20% or more is subject to 40 CFR 68, therefore, there are limits on the type and concentration of ammonia to that reported in the application.

Emission unit Nos.	Parameters To Monitor	To Comply With	Monitoring Required	Monitoring Conditions
N/A, this is not a TV permit				

14.0 **<u>For Title V action: Cross Reference Table between NSR Permit 1554 and TV Permit P127R1M1. NSR permit conditions cross referenced to the TV permit are federally enforceable conditions, and therefore brought forward into the TV permit:</u>**

NSR Changed by TV*	NSR Condition #	TV Section #
N/A, this is not a TV permit		

15.0 **Permit specialist's notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.**

The Environmental Department has determined that there is significant public interest in this permit application, therefore if this permitting action proceeds, a hearing will be held in Spring or Summer 2011.