



**San Joaquin Valley Unified
Air Pollution Control District**

**Aera Energy Belridge Oilfield Complex
Steam Generators Project**

Project Numbers

S-1084210, S-1084406

S-1084433, S-1084434

S-1121401, S-1121402

**Belridge Oil Field
Kern County**

**Addendum to the Initial Study and
Mitigated Negative Declaration
Adopted May 26, 2011**

March 2014

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**ADDENDUM TO THE INITIAL STUDY AND
MITIGATED NEGATIVE DECLARATION
ADOPTED MAY 26, 2011**

**Aera Energy Belridge Oilfield Complex
Steam Generators Project**

Project Numbers:

**S-1084210, S-1084406, S-1084433
S-1084434, S-1121401, S-1121402**

March 2014

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A. OVERVIEW

Aera Energy LLC (Aera) is a Title V oil production company with facilities located in Kern County, California. The San Joaquin Valley Unified Air Pollution Control District (District) received four (4) Authority to Construct (ATC) application packages from Aera to install and operate up to twenty two (22) natural gas fired steam generators in two (2) general project areas, each with two (2) buildout alternatives, collectively referred to as the "Project". These project areas are located within the existing South Belridge Oilfield within Aera's Heavy Oil Western stationary source. The District prepared an Initial Study and Mitigated Negative Declaration (MND) in March 2011 for the Aera Energy Belridge Oilfield Complex Steam Generators Project which evaluated the potential environmental impacts associated with the proposed twenty two (22) steam generators. The MND was circulated for a 30-day public review beginning on March 23, 2011 and ending on April 27, 2011. The MND was adopted by the District on May 26, 2011 and the ATC permits were issued on June 2, 2011. The District filed the Notice of Determination with the County of Kern on June 6, 2011.

Following the adoption of the MND and issuance of the ATC permits, the applicant has proposed some minor changes to the Project. As these changes constitute discretionary approvals by the District, the changes to the Project are subject to the California Environmental Quality Act (CEQA) (CCR §15060(c)). The District has reviewed the proposed changes to the Project and concludes that no substantial changes have occurred that warrant preparation of a Subsequent or Supplemental MND (CCR §15162). The District further concludes that an Addendum should be prepared to present the minor technical changes to the adopted MND required as a result of the proposed changes (CCR §15164). This document constitutes the Addendum to the MND adopted by the District on May 26, 2011.

B. PROPOSED MODIFICATION TO THE APPROVED PROJECT

As discussed in the previously approved MND, twenty two (22) 85 MMBtu/hr steam generators would be installed in two (2) project locations. The northern project location was evaluated in the District's engineering evaluation for ATC projects S-1084210 and S-1084433, while the southern project location was evaluated in the District's engineering evaluation for ATC projects S-1084406 and S-1084434. As discussed in the MND, nineteen (19) ATCs would be issued for each project area for a total of thirty eight (38) ATCs for the project. Although thirty eight (38) ATCs would be issued, only twenty two (22) steam generators would be authorized to be installed.

The proposed changes to the Project consist of the replacement of one (1) 85 MMBtu/hr steam generator with one (1) 100 MMBtu/hr steam generator in the northern project



area and the cancellation of various ATCs previously issued. Specifically, the project will result in the following actions to be taken by the District:

- Issuance of ATC permits for one (1) 100 MMBtu/hr steam generator(ATC Project S-1121401)
- Cancellation of twenty two (22) previously issued ATCs permits;
- Reduce the number of overall Project related ATCs permits from thirty eight (38) to seventeen (17); and
- Reduce the number of steam generators authorized under the Project from twenty two (22) to seventeen (17).

Table 1 – ATCs, Generators, and Project Locations of Approved Project

ATC Project	# of ATC to be issued	Steam Generators	Section	Township	Range
S-1084210 S-1084433	19	11	SW/4 S.20 NE/4, SE/4 S.29 NW/4, SW/4, SE/4 S.28	28 S 28 S 28 S	21 E 21 E 21 E
S-1084406 S-1084434	19	11	SE/4 S. 33 SE/4 S. 34 SW/4 S. 2 NE/4, NW/4, SE/4, SW/4 S. 3	28 S 28 S 29 S 29 S	21 E 21 E 21 E 21 E

Table 2 – ATCs, Generators, and Project Locations of Modified Project

ATC Project	# of ATC to be issued	Steam Generators	Section	Township	Range
S-1084210 S-1084433	10	10	SW/4 S.20 NE/4, SE/4 S.29 NW/4, SW/4, SE/4 S.28	28 S 28 S 28 S	21 E 21 E 21 E
S-1084434	6	6	SE/4 S. 33 SE/4 S. 34 SW/4 S. 2 NE/4, NW/4, SE/4, SW/4 S. 3	28 S 28 S 29 S 29 S	21 E 21 E 21 E 21 E
S-1121401	1	1	NE/4 S. 29	28 S	21 E



The Project as previously approved and the proposed modifications are summarized in Table 1 and Table 2 above. As discussed further in Section C of this Addendum, the proposed changes to the Project will result in an overall reduction of project related criteria pollutant emissions.

C. CHANGES AND AMENDMENTS TO THE ADOPTED MND

The proposed modifications to the approved Project were evaluated to ensure that the MND would still address all potential environmental impacts associated with the modified Project. Minor changes and amendments to the MND are discussed by the resource areas below.

AIR QUALITY

As discussed in the MND, the District concluded that the Project would not have a significant impact on air quality. As discussed further below the District concludes that the modifications to the Project would result in a decrease in Project related criteria pollutant emissions. Therefore, the changes to the Project would not have a significant impact on air quality.

Construction Related Criteria Pollutant Emissions

Construction emissions will be generated from mobile sources. Offsite construction emissions will be generated from the transportation of construction material (heavy duty trucks) and construction worker trips. Onsite construction emissions will be generated by mobile source equipment used for site preparation, and installation of the steam generators. The MND concluded that construction of twenty two (22) steam generators would not exceed the District's thresholds of significance (10 tons per year NO_x, 10 tons per year VOC, and 15 tons per year PM₁₀) and would not require mitigation to reduce impacts on air quality.

The modifications to the Project reduce the number of steam generators to be constructed and, therefore, results in reduced construction activities. As such, construction related emissions from the modified Project are less than the emissions presented in the MND. No new mitigation measures are required to reduce construction related impacts on air quality.

Operation Related Criteria Pollutant Emissions

Mobile Source Emissions: The Project will be maintained and manned by existing Aera personnel and contractors. Therefore, the Project will not result in any new mobile source emissions.



Stationary Source Emissions: Aera is a major stationary source with a Title V permit and, therefore, required to offset, in the form of emission reduction credits (ERCs), all Project related increases in stationary source emissions. The MND concluded that operation of twenty two (22) steam generators would exceed the District's thresholds of significance (10 tons per year NOx, 10 tons per year VOC, and 15 tons per year PM10) and would require the surrendering of ERCs to mitigate impacts on air quality to less than significant. Project related stationary source criteria pollutant emissions as evaluated under the MND are identified below in Table 3.

Table 3 – Generators and Emission Presented in MND Approved May 2011

ATC Project	# of Steam Generators	NOx (tons/yr)	CO (tons/yr)	PM10 (tons/yr)	SOx (tons/yr)	VOC (tons/yr)
1084210	11	25.00	75.81	31.14	8.61	12.29
1084433	8	23.36	54.02	22.19	6.13	8.76
1084406	11	25.00	75.81	31.14	8.61	12.29
1084434	8	23.36	54.02	22.19	6.13	8.76
Project Total *	22	49.99	151.61	62.28	17.22	24.59

* The project included two (2) options for development. The project total represents the worst-case scenario of the development of twenty two (22) steam generators.

Table 4 – Generators and Emission of Modified Project

ATC Project	# of Steam Generators	NOx (tons/yr)	CO (tons/yr)	PM10 (tons/yr)	SOx (tons/yr)	VOC (tons/yr)
1084210	3	6.82	20.67	8.49	2.35	3.35
1084433	7	20.44	47.27	19.42	5.37	7.63
1084434	6	17.52	40.52	16.64	4.60	6.57
1121401	1	3.50	8.10	2.19	0.92	1.31
Project Total	17	48.28	116.56	46.75	13.23	18.90



Aera is modifying the project to replace one (1) 85 MMBtu/hr steam generator with one (1) 100 MMBtu/hr steam generator in the northern project area, reduce the number of ATCs from thirty eight (38) to seventeen (17); and reduce the number of steam generators authorized from twenty two (22) to seventeen (17). The District has evaluated and quantified operational stationary source criteria pollutant emissions resulting from the modifications to the Project (see Attachment 1). As seen in Table 4 above, the proposed modifications result in a decrease in Project related criteria pollutant emissions, specifically 1.71 tons/yr NO_x, 35.05 tons/yr CO, 15.52 tons/yr PM₁₀, 3.99 tons/yr SO_x, and 5.69 tons/yr VOC.

Aera will surrender ERCs to offset emissions from the 100 MMBtu/hr steam generator (ATC project S-1121401). Although fewer ERCs will be required, the surrendering of these ERCs is consistent with and is not considerably different than the mitigation measures previously addressed in the MND. Therefore, the District concludes that the proposed modifications to the Project would not result in new significant impacts, nor would the modifications increase the severity of impacts on air quality beyond those identified in the MND.

Toxic Air Contaminants and Health Risk Impacts

Toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs can be separated into carcinogens and non-carcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals. Non-carcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed by using a Hazard Index, which is the ratio of expected exposure levels to acceptable health-acceptable exposure levels.

The District's thresholds of significance for determining whether project emissions would expose sensitive receptors to substantial pollutant concentrations are:

Carcinogens: Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds ten (10) in one million.

Non-Carcinogens: Ground Level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than one (1) for the MEI.



The District prepared an Ambient Air Quality Analysis (AAQA) and Risk Management Review (RMR) for the previously approved Project. The AAQA and RMR evaluated Project related health impacts from the development of up to eleven (11) steam generators at each project site. The analysis indicated that the highest prioritization score for any site is less than one (1) and the cancer exposure risk for the facility is less than ten (10) in a million. Therefore, the District concluded that the Project would not expose nearby sensitive receptors to significant health risks.

The modifications to the Project would reduce the total number of steam generators authorized to be operated within the project sites. However, the substitution of the 100 MMBtu/hr steam generator would allow the number of steam generators in the northeast quarter of Section 29, Township 28S, Range 21E to increase from eleven (11) to twelve (12). As such, the District re-evaluated potential health risks and prepared a new AAQA and RMR for the modified Project (see Attachment 2). The new analysis indicates that cancer risk for the facility would still be less than ten (10) in a million and the Project would not cause or contribute to an exceedance of any state or national ambient air quality standard. As such, the District concludes that the proposed modifications to the Project would not result in new significant impacts, nor would the modifications increase the severity of impacts on air quality beyond those identified in the MND.

BIOLOGICAL RESOURCES

Aera is modifying the approved Project to replace one (1) 85 MMBtu/hr steam generator with one (1) 100 MMBtu/hr steam generator in the northern project area and to reduce the number of steam generators authorized from twenty two (22) to seventeen (17). The 100 MMBtu steam generator will be constructed in a location that was identified in the MND and will not require any additional disturbance of land beyond what was previously evaluated.

As discussed in the MND, Aera implements a biological species training program for employees as part of their Endangered Species Program, which applies to all Aera employees or contractors involved in activities in which there may be contact with endangered species. The program includes avoidance and minimization measures for daily operations, as well as precautionary measures for species identification prior to construction activities. Aera makes available to employees a handbook detailing the endangered plants and animals within Aera's property, and provides information on endangered species in their internal Emergency Action Plan document. In addition to implementation of the Endangered Species Program, Aera incorporated mitigation measures BIO-1 through BIO-8, as identified in the MND, to ensure that potential impacts on biological resources are fully mitigated to a level of insignificance. As such, mitigation measures BIO-1 through BIO-8 will also be included as conditions in the ATC



permit for the 100 MMBtu/hr steam generator (ATC project S-1121401). Therefore, the District concludes that the proposed modifications to the Project would not result in new significant impacts, nor would the modifications increase the severity of impacts to biological species beyond those identified in the MND.

CULTURAL RESOURCES

As discussed in the MND, the District concluded that the Project would have a less than significant impact on historical, archaeological, and paleontological resources or human remains. As discussed further below the District concludes that the modifications to the Project would not have a significant impact on the environment or global climate change.

Aera is modifying the approved Project to replace one (1) 85 MMBtu/hr steam generator with one (1) 100 MMBtu/hr steam generator in the northern project area and to reduce the number of steam generators authorized from twenty two (22) to seventeen (17). The 100 MMBtu steam generator will be constructed in a location that was identified in the MND and will not require any additional disturbance of land beyond what was previously evaluated. Aera incorporated mitigation measures CUL-1 through CUL-3, as identified in the MND, to ensure that potential impacts on historical, archaeological, and paleontological resources or human remains are fully mitigated to a level of insignificance. As such, mitigation measures CUL-1 through CUL-3 will also be included as conditions in the ATC permit for the 100 MMBtu/hr steam generator (ATC project S-1121401). Therefore, the District concludes that the proposed modifications to the Project would not result in new significant impacts, nor would the modifications increase the severity of impacts to biological species beyond those identified in the MND.

GREENHOUSE GAS EMISSIONS

As discussed in the MND, the District concluded that the Project would not have a significant impact on the environment and would not conflict with any applicable plans or policies to reduce greenhouse gas (GHG) emissions.

The modifications to the Project reduce the number of steam generators to be constructed from twenty two (22) to seventeen (17) and, therefore, results in reduced construction and operational activities. As such, no new mitigation measures are required to reduce Project related GHG impacts. Therefore, the District concludes that the proposed modifications to the Project would not result in new significant impacts, nor would the modifications increase the severity of impacts on air quality beyond those identified in the MND.



HAZARDS AND HAZARDOUS MATERIALS

As discussed in the MND, the District concluded that the Project would not expose the public to hazards or hazardous materials.

The modifications to the Project replace one (1) 85 MMBtu/hr steam generator with one (1) 100 MMBtu/hr steam generator in the northern project area and reduces the number of steam generators authorized from twenty two (22) to seventeen (17). Aera incorporated mitigations measures HAZ-1 through HAZ-3, as identified in the MND, to ensure that potentially hazardous conditions be identified and that potential impacts to the public are mitigated to a level of insignificance. As such, mitigation measures HAZ-1 through HAZ-3 will also be included as conditions in the ATC permit for the 100 MMBtu/hr steam generator (ATC project S-1121401). Furthermore, the District re-evaluated potential health risks and prepared a new AAQA and RMR for the modified Project (see Attachment 2). The new analysis indicates that cancer risk for the facility would still be less than ten (10) in a million and the project would not cause or contribute to an exceedance of any state or national ambient air quality standard. Therefore, the District concludes that the proposed modifications to the Project would not result in new significant impacts from hazards and hazardous material, nor would the modifications increase the severity of impacts beyond those identified in the MND.

D. DETERMINATION

Based on the information presented in this Addendum and in the attached memoranda, pursuant to CCR §15162, the District has made the following determinations.

1. There are no substantial changes to the Project that would require major revisions to the previous MND due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified significant effects.
2. Substantial changes have not occurred with respect to the circumstances under which the Project is being undertaken which would require major revisions to the previous MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
3. There is no new information of substantial importance revealed since the MND was adopted that shows the Project would have any new significant effects or a substantial increase in the severity of the impacts previously identified in the MND. Nor is there new information that shows mitigation measures or



alternatives previously found not feasible, or that are considerably different from those analyzed in the MND, would substantially reduce one or more significant effects.

Signature:  Date: APR 11 2014

Printed Name: David Warner

Title: Director of Permit Services

E. ATTACHMENTS

Attachment 1. Project Emissions

Attachment 2. AAQA and RMR

ATC To Be Issued - Approved Project, MND Approved May 2011

Project Unit #	ATC Project #	Description	NOx (lbs/yr)	CO (lbs/yr)	PM10 (lbs/yr)	SOx (lbs/yr)	VOC (lbs/yr)
NORTH							
S 1547 1162 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1163 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1164 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1165 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1166 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1167 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1168 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1169 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1170 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1171 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1172 0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
Total			49,995	151,613	62,282	17,215	24,585

NORTH ALTERNATIVE							
S 1547 1173 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1174 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1175 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1176 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1177 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1178 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1179 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1180 0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
Total			46,720	108,040	44,384	12,264	17,520

SOUTH							
S 1547 1182 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1183 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1184 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1185 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1186 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1187 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1188 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1189 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1190 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1191 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547 1192 0, 1	1084406	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
Total			49,995	151,613	62,282	17,215	24,585

SOUTH ALTERNATIVE							
S 1547 1193 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1194 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1195 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1196 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1197 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1198 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1199 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 1200 0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
Total			46,720	108,040	44,384	12,264	17,520

ATC totals			99,990	303,226	124,564	34,430	49,170
ATC totals (tons per year)			50.00	151.61	62.28	17.22	24.59
MND totals			99,980	303,216	124,564	34,420	49,270
MND totals (tons per year)			49.99	151.61	62.28	17.22	24.59

NOTE: Difference In ATC and MND totals are due to rounding

ATC To Be Issued - Modified Project, Addendum to MND

Project Unit #	ATC Project #	Description	NOx (lbs/yr)	CO (lbs/yr)	PM10 (lbs/yr)	SOx (lbs/yr)	VOC (lbs/yr)		
NORTH									
S 1547	1162	0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547	1163	0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
S 1547	1164	0	1084210	85 MMBtu/hr @ 5 ppmvNOx	4,545	13,783	5,662	1,565	2,235
Total					13,635	41,349	16,986	4,695	6,705
NORTH ALTERNATIVE									
S 1547	1173	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1174	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1175	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1176	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1177	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1178	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1180	0, 1	1084433	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547 / 1548	1261 / 554	0 / 0	1121401	100 MMBtu/hr	7,008	16,206	4,380	1,840	2,628
Total					47,888	110,741	43,216	12,571	17,958
SOUTH ALTERNATIVE									
S 1547	1193	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1194	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1195	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1196	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1197	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
S 1547	1198	0, 1	1084434	85 MMBtu/hr @ 7 ppmvNOx	5,840	13,505	5,548	1,533	2,190
Total					35,040	81,030	33,288	9,198	13,140
Addendum totals					96,563	233,120	93,490	26,464	37,803
Addendum totals (tons per year)					48.28	116.56	46.75	13.23	18.90
MND totals					99,980	303,216	124,564	34,420	49,270
MND totals (tons per year)					49.99	151.61	62.28	17.21	24.64

ATTACHMENT 2. AAQA AND RMR

San Joaquin Valley APCD Inter-Office Memorandum

To: File

From: Leland Villalvazo – Supervising AQS

Subject: S-1547 (Revised CEQA Modeling)

AERA has requested a revision to the District's CEQA HRA performed for the 22 85MMBTU/HR steam generators. The New proposal would allow 17 85MMBTU/HR steam generators and 1 100MMBTU/HR steam generator to operate at the above facility.

No changes to conditions of the proposed ATCs have been requested that would not limit the number of steam generators. AERA has indicated no more than 11 steam generators plus the pilot would operate in any one location based on the updated proposal. The original proposal only considered 11 steam generators at any one location. Therefore, for the purposes of the HRA and AAQA there is a potential change in impact that must be assessed.

The District used modeling data generated from the previous modeling runs of the 85MMBTU/HR and the 100MMBTU/HR steam generators to evaluate the potential increase in impact to both the nearest receptor for the HRA and the nearest offsite location for the AAQA. Based on this evaluation, the impacts from both the HRA and AAQA are below the District's significance thresholds. Therefore, the project would not cause or contribute to an exceedance to a NAAQS or CAAQS. See the attached spreadsheet for a detailed listing of results.

Primary Sites

Pollutant	1 hour	Annual
NOx	47.43	0.34
Background	66	28.70
Total	113.43	29.03
NAAQS	188	100
CAAQS	339	57
Significant	No	No

Pollutant	1 hour	3 hour	24 hour	Annual
SOx	12.45	6.80	1.14	0.21
Background	6.8	0	10.66	0
Total	19.25	6.80	11.80	0.21
NAAQS	196	1300	373	80
CAAQS	655	---	105	---
Significant	No	No	No	No

Pollutant	24 hour	Annual
PM10	2.72	0.21
Background	125.8	41.4
Total	128.52	41.61
NAAQS	150	---
CAAQS	50	20
Significant	Yes	Yes
SIL	5.00	1.00
Above SIL	No	No

Pollutant	24 hour	Annual
PM 2.5	2.72	0.21
Background	86.5	15.6
Total	89.22	15.81
NAAQS	35	12
CAAQS	---	12
Significant	Yes	Yes
SIL	5.00	1.00
Above SIL	No	No

Pollutant	1 hour	8 hour
CO	109.69	27.28
Background	1.3	0.9
Total	110.99	28.18
NAAQS	40,000	10,000
CAAQS	23,000	10,000
Significant	No	No

Max	Cancer	Chronic	Acute
Risk	0.023	0.003	0.043
Threshold	10	1	1
Significant	No	No	No