

DOCKETED

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Eldon Heaston, Executive Officer
Mojave Desert Air Quality Management District
14306 Park Avenue
Victorville, CA 92392-2310

Subject: Comments on the Preliminary Determination of Compliance
Sonoran Energy Project

Dear Mr. Heaston:

On behalf of AltaGas Sonoran Energy Inc., we are pleased to submit these comments on the December 18, 2015 Preliminary Determination of Compliance for the Sonoran Energy Project.

Comments on the Engineering Evaluation

Page 8, table of emissions during startups and shutdowns:

The CO, VOC, and PM₁₀/PM_{2.5} values in this table are emissions in pounds per event, not pounds per hour. The correct pounds per hour value are shown in the markup below.

Event	Duration, minutes	Emissions, lb/hr			
		NOx	CO	VOC	PM10/PM2.5
Cold Start	45	188	132 <u>136</u>	10 <u>12</u>	6.6 <u>9.1</u>
Warm Start	40	155	130 <u>135</u>	10 <u>13</u>	5.9 <u>9.2</u>
Hot Start	21	114	123 <u>133</u>	9 <u>15</u>	3.1 <u>9.6</u>
Shutdown	14	25	136 <u>148</u>	28 <u>35</u>	2.1 <u>9.8</u>

Page 22, table of modeling inputs and methods

At the request of the California Energy Commission (CEC) staff, the ambient air quality modeling analysis submitted with the application for amendment was revised to reflect different NO₂/NO_x ratios for the gas turbine/HRSG during its various operating modes. A copy of the revised modeling analysis was provided to the District on December 17, too late to be reflected in the PDOC. The “NO₂/NO_x ratios” used in the revised modeling analysis are shown below.

NO ₂ /NO _x ratios	<ul style="list-style-type: none"> • Vendor data for turbine and boiler <ul style="list-style-type: none"> ○ Turbine, normal 13 <u>30</u>% ○ Turbine, SUSD 24 <u>40</u>% ○ Turbine, commissioning 24 <u>40</u>% ○ Boiler, normal 29% ○ Boiler, <25% load 12.5% • Emergency fire pump 20%
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Page 23, SEP Worst Case Ambient Air Quality Impacts

As indicated above, the worst case air quality impacts for NO₂ were revised and other minor changes were made to the modeling analyses in December at the request of the CEC staff. The updated impacts for the project have been revised in the following version of the PDOC table:

<i>SEP Worst Case Ambient Air Quality Impacts</i>					
	Project Impacts	Background	Total Impact	Federal Standard	State Standard
Pollutant	<i>All values in µg/m³</i>				
NO ₂ (annual)	0.4	13.2	13.6	100	57
NO ₂ (1-hour)	123.0 <u>151.1</u>	77.1 <u>97.8</u>	200.1 <u>249</u>		339
NO ₂ (federal 1-hour)	64.9 <u>65.5</u>	77.1	142.0 <u>115</u>	188	
SO ₂ (1-hour)	7.0	22.9	29.9		655
SO ₂ (federal 1-hour)	7.0	13.0	20.0	196	
SO ₂ (3-hour)	3.4 <u>3.2</u>	22.6	26.0	1300	
SO ₂ (24-hour)	1.0 <u>0.8</u>	2.6	3.6 <u>3.4</u>	365	105
CO (1-hour)	144.6 <u>140.9</u>	4,000	4,144.6 <u>4,141</u>	40,000	23,000
CO (8-hour)	16.4 <u>13.2</u>	1,698	1,714.4 <u>1,711</u>	10,000	10,000
PM ₁₀ (24-hour)	8.1 <u>5.4</u>	127	135.1 <u>132</u>	150	50
PM ₁₀ (annual)	0.9 <u>0.7</u>	22.1	23.0		20
PM _{2.5} (24-hour)	8.1 <u>5.4</u>	13.8	21.9	35	
PM _{2.5} (annual)	0.9 <u>0.7</u>	6.5	7.4 <u>7.2</u>	15	12

Requested Changes to Permit Conditions

We are also requesting minor corrections and clarifications to several of the proposed permit conditions, as summarized below.

Gas Turbine Condition 6.b. Please correct the CO emissions limit during cold starts to 136 pounds per hour.

6. Emissions of CO and NO_x from this equipment, including the duct burner, may exceed the limits contained in Condition 4 during startup and shutdown periods as follows:

b. During a cold startup emissions shall not exceed the following, verified by CEMS:

i. NO_x – 187.5 lb

ii. CO – ~~134.0~~ 136.0 lb

Gas Turbine Condition 17. Please include language in this condition reflecting the District's determination that NOx ERCs may be used to offset the VOC emissions from the project at a ratio of 1:1. Proposed language is provided below.

17. The o/o must surrender to the District sufficient valid Emission Reduction Credits for this equipment before the start of construction of any part of the project for which this equipment is intended to be used. In accordance with Regulation XIII the operator shall obtain 85.6 tons of NO_x and 23.3 tons of VOC offsets. NOx ERCs may be used to meet the VOC offset obligation at a ratio of 1:1.

Gas Turbine Condition 21.a. As part of the revised one-hour NO₂ modeling assessment provided in the December 17, 2015 submittal, the maximum hourly NOx emission rate during commissioning was reduced from 625 pounds per hour to 550 pounds per hour and the maximum daily NOx emissions during the commissioning period were revised accordingly. Please revise the hourly and daily NOx limits in Condition 21 to reflect these new, lower limits as follows:

21. During the commissioning period, the emission rates from the gas turbine system shall not exceed any of the following limits:
 - a. NOx (as NO₂) – ~~625~~ 550 lb/hr and ~~15,610~~ 13,750 lb/day;

Auxiliary Boiler Conditions 5.d and 6.d. Please correct the hourly SO_x (as SO₂) emission limits in both conditions to 0.9 lb/hr. The 0.5 lb/hr values shown are based on the annual average sulfur content of 0.25 gr/100 scf, while these short-term limits should instead be based on the 24-hour average fuel sulfur content of 0.5 gr/100 scf. (Auxiliary Boiler Condition 7 shows the correct hourly SO₂ limit.)

We appreciate the opportunity to review the document and provide these comments. If you have any questions regarding these requested changes, please do not hesitate to call.

Sincerely,


Gary Rubenstein
Senior Partner

cc: Chris Doyle, AltaGas
Melissa Foster, Stoel Rives
Mary Dyas, CEC