From: Osbourn, Scott
To: Linero, Alvaro

Cc: <u>Bradley, Chris; Hoch, Gavin; Larocca, David</u>

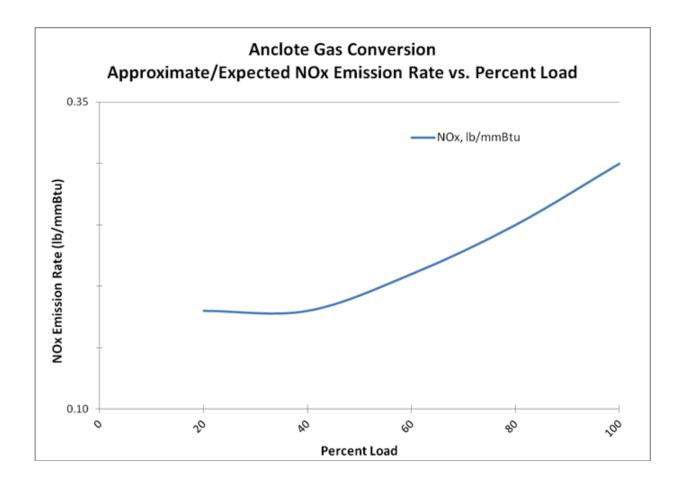
Subject: Anclote - Miscellaneous Items

Date: Wednesday, July 25, 2012 11:26:15 AM

Attachments: <u>image001.png</u>
Importance: High

In reference to our discussion yesterday, you had requested additional information with respect to several issues. A summary is provided below.

- We confirmed that the Anclote fuel conversion project will be using CCOFA and not SOFA for NOx control. It's our understanding that this will also help to minimize CO emissions from the proposed project.
- You had also inquired about the proposed increase in the heat input to the units as a result of the fuel conversion, from approximately 5,000 MMBtu/hr to 5,500 MMBtu/hr (approximately a 10% increase). PEF engineering has indicated that gas-fired boilers are typically about 4% to 5% less efficient than oil-fired boilers, which would account for part of the increase. The remaining 5% to 6% heat input increase is for capacity margin (i.e., up to 5% steam over pressure in the boiler for recovery of additional MW output, more in line with the rated capacity of the steam generator).
- Regarding expected NOx emissions, PEF is comfortable in stating that NOx emissions will be no more than 0.3 lb/MMBtu at full load and throughout the load range. In fact, PEF would expect NOx emissions to decrease with load, in accordance with the characteristics of the curve below. However, even though NOx emissions will not exceed 0.3 lb/MMBtu and are expected to decrease at lower loads, there is potential for relatively large variation in predicted NOx emissions, especially at lower loads. This is a function of how the plant is operated to make desired superheat and reheat steam temperatures relative to NOx emissions. Therefore, PEF would not expect to be held to the NOx values indicated in the curve below at lower loads.



Let me know if you have any further questions.

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