## Miller, Taylor

From: Sent: To: Cc: Subject: Miller, Taylor Monday, November 26, 2007 3:58 PM PDavid@energy.state.ca.us Docket@energy.state.ca.us Air Chiller Project; Palomar 01-AFC-24C



Paula --

Here is some additional information concerning the inlet air chiller project:

## Schedule

If we expect to get the chillers in service before the summer peak (June - July) then we need to begin construction near the first of the year. About a month is necessary to mobilize contractors, particularly during the holiday season. Another major driver is the need to take the plant out of service for 3 weeks to install the chiller coils in the air inlet filter houses. This must be done before the peak season since SDG&E will not take the plant down to perform this work during the summer. Pushing the approval out to January or February will delay this project for another year.

A further break down is as follows:

December 2007 - Complete detailed engineering of the project, while simultaneously submit drawings to the CBO. Order major equipment.

January 2008 Mobilize construction at the site, complete the CBO design review process, and order minor equipment.

February and March 2008. Construction of chiller building, cooling tower pump bay and chiller piping systems. Prepare for April inlet filter house construction and cooling tower bay tie-in.

April 2008 Three week full plant outage for filter house construction, electrical power tie-in and pump bay tie-in to the cooling tower.

May 2008 Complete all construction activities. Install equipment that arrives late due to long lead times. Start preliminary commissioning activities.

June 2008 Commissioning activities to achieve initial chiller operation.

July 2008 Complete commissioning activities, test system, and start commercial operation.

August 2008 through May 2009 Construct and commission chiller tank.

<u>Claimed increase in moisture emissions related to the chiller</u>. The Bimbo comment letter attachment posits a case where the chiller would add 10% additional moisture to cooling tower emissions for a short period. Bimbo hasn't established why a small 10% change would cause a significant environmental effect but has just speculated that this could be important. Without investing this claim with more relevance than it deserves, we can in any case comment that such a change would likely occur less than 3 percent of the time and only for a few hours when it does occur.

A 10% increase in the moisture from the chiller will only occur when the chiller is at full capacity at the same time that the duct burners are also at full capacity. The chiller will only be at full capacity on the very hottest, most humid days of the

year. For most hours of the year the combustion turbines will be able to provide full output while the chiller is at a very reduced load because it doesn't require full capacity to reduce the temperature of relatively cool dry air to 50 F. The duct burners will not be operated unless the combustion turbines are at full load with the chillers operating a maximum capacity, because the chiller is a much more efficient method of achieving the increased power.

The simultaneously operation of the chiller system at full load and the duct burners at full load will be a very rare occurrence primarily because the weather conditions rarely are hot enough and humid enough to necessitate full load operation. This simultaneous operation is further reduced because the duct burners are often not required to achieve the requested plant load. For example, since April 1, 2006 there were 339 hours (2.4%) of duct burner operations greater than 75% while ambient temperatures were greater than 80 degrees F. There were 36 (0.25%) hours of duct burner operation greater than 75% and ambient temperatures greater than 90 degrees F. Note that high temperatures in the Escondido are typically (a) during the summer when evaporative capacity of the atmosphere is high, and (b) when east to west Santa Ana wind conditions prevail, away from the bakery.

Taylor O. Miller Senior Environmental Counsel Sempra Energy 925 L Street, Suite 650 Sacramento, CA 95814 Phone: 916-492-4248 Fax: 916-448-1213 Cell: 916-203-3399