

**PALOMAR ENERGY PROJECT (01-AFC-24)
CEC STAFF DATA REQUEST NUMBER 11**

Technical Area: Air Quality

Response Date: April 8, 2002

REQUEST:

Please provide information confirming that periods of turbine startups have been included in the dispersion modeling analysis for annual NO₂ impacts (AFC Table 5.2-13). If the present analysis does not include periods of startups, then the applicant must revise the modeling analysis to account for those periods of increased emissions.

RESPONSE:

To determine the worst-case annual NO₂ impacts, the NO₂ modeling analysis assumed that 100% of the NO_x emitted from the CTGs is converted to NO₂. NO_x emissions were modeled assuming that each turbine operating scenario (AFC Table 5.2-9, page 5.2-21) occurs for an entire year (i.e., 8,760 hours). The worst case annual NO₂ impacts (AFC Table 5.2-13, page 5.2-26) were predicted to occur for turbine scenario 4 (20-degree Fahrenheit, 100% load with duct firing). Assuming that this scenario occurred over an entire year would result in a theoretical NO_x emission rate of 131 tons per year (tpy).

Start-ups have been included in the annual NO_x potential to emit (PTE) for the project (AFC Table 5.2-11, page 5.2-23), which is calculated to be 124 tpy. The annual NO₂ modeling analysis was performed using a higher annual NO_x emission rate (131 tpy) than the calculated emission rate that includes start-ups (124 tpy). Since the worst case modeling scenario was associated with an annual emission rate greater than the annual emission rate that includes start-ups, the annual NO₂ modeling has implicitly included emissions from start-ups.