

OTAY MESA GENERATING COMPANY
99-AFC-5C
Request to Change Ambient Noise Level
Staff Analysis — July 25, 2003

I. Request

Calpine requests that the noise limit specified in Condition of Certification **NOISE-6** be increased from 39 dBA to 40 dBA.

II. Background

The Commission Decision requires that the project not produce noise, measured at the nearest sensitive receptor, more than 5 dBA louder than the pre-existing ambient noise level. The applicant's pre-application noise survey revealed an ambient level of 34 dBA; staff recommended, and the Commission adopted, a Condition of Certification, **NOISE-6**, that limits project noise, measured at that receptor, to 39 dBA, which is 5 dBA louder than the pre-existing ambient level.

Due to many delays, the original ambient noise survey, performed in May 1997, is now six years old. In the interim, development has progressed in the neighborhood of the project, and the ambient noise level is now greater than it was when the original noise survey was taken. Calpine performed a new survey in March 2003 that showed the ambient noise level has increased 1 dB, to 35 dBA. Calpine thus requests that the 39 dBA limit specified in Condition of Certification **NOISE-6** be increased 1 dB to 40 dBA.

III. Laws, Ordinances, Regulations and Standards (LORS)

Two local LORS exist that could act to limit power plant noise. The San Diego County Code sets a limit of 70 dBA L_{eq} ¹, and the San Diego County General Plan Noise Element sets a limit of 55 dBA CNEL.² The analysis performed by Energy Commission staff determined that an increase of 5 dBA above the pre-existing ambient noise level would present an insignificant impact.

IV. Analysis

The Commission's decision correctly determined that the project must limit its noise levels to no more than 5 dBA above ambient at the nearest sensitive receptor. Staff agrees with the applicant's amendment request, increasing the noise limit in Condition of Certification **NOISE-6** from 39 dBA to 40 dBA. However, other development in the neighborhood of the project continues, increasing the ambient noise level. Staff recommends that Condition of Certification **NOISE-6** be amended to allow the project to produce noise no more than 5 dBA louder than the ambient noise level prior to project

¹ Equivalent noise level, the energy average noise level during the measurement period.

² Community Noise Equivalent Level, the average noise level during a 24-hour day, obtained after addition of 4.8 decibels to levels in the evening (from 7 p.m. to 10 p.m.), and addition of 10 decibels to levels in the night (from 10 p.m. to 7 a.m.).

operation. This would allow the applicant, if they wish, to perform an ambient noise survey at any time prior to project operation, in order to determine an appropriate project noise level. As long as such ambient noise survey is performed when no project construction is audible, staff believes this will preserve the intent of the Commission Decision and afford the appropriate protection from noise impacts.

V. Mitigation Measures and Conditions

The mitigation measures necessary to limit project noise emissions to the level specified in Condition of Certification **NOISE-6** were described in the Application for Certification and analyzed by staff prior to the Commission Decision. The only Condition of Certification that need be modified to satisfy this Amendment Petition is **NOISE-6**. A revised **NOISE-6** is appended to this analysis, showing the requisite changes in underline and strikeout.

VI. Conclusions

The applicant's request to increase the noise limit in Condition of Certification **NOISE-6** is acceptable to staff. Staff recommends that the attached modifications to Condition of Certification **NOISE-6** be adopted. These modifications specify that the project may produce noise, measured at the nearest sensitive receptor, that does not exceed the pre-existing ambient noise level by more than 5 dBA. This recommendation is based on the following:

1. Staff has analyzed the situation from the standpoint of noise, and concludes there will be no new or additional significant environmental impacts associated with this action.
2. Staff concludes that the amendment is based on new information that was not available during previous proceedings.
3. Staff concludes that the proposed change retains the intent of the original Commission Decision and Conditions of Certification.

Otay Mesa Generating Project (99-AFC-5C)
Proposed amendment to Condition of Certification NOISE-6

NOISE-6 Prior to initial operation of the project, the project owner will conduct a 25-hour community noise survey at the nearest sensitive receptor. This survey will be conducted at a time when no audible project-related construction work is in progress.

Upon the OMGP first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. The survey shall also include the octave band pressure levels to ensure that no new pure-tone noise components have been introduced. No single piece of equipment shall be allowed to stand out as a dominant source of noise that draws complaints. Steam relief valves shall be adequately muffled to preclude noise that draws complaints. The noise contributed by the OMGP operation at the nearest residence sensitive receptor shall not exceed ~~39 dBA~~the ambient background noise level (L₉₀), measured at the receptor during the pre-operational community noise survey, by more than 5 dBA under normal operating conditions including startups and shutdowns. If the results from the survey two noise surveys (pre-operational vs. operational) indicate that, during power plant operation, power plant noise levels ~~are in excess of 39 dBA~~exceed the ambient background noise level by more than 5 dBA at the nearest residence sensitive receptor, additional on-site mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.

Protocol: The measurement of power plant noise for purposes of demonstrating compliance with this Condition may alternatively be made at an acceptable location closer to the plant (e.g. 400 to 1,000 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the nearest sensitive receptor. However, notwithstanding the use of this alternative method for determining the noise level, the character of plant noise shall be evaluated at the nearest sensitive receptor to determine the presence of pure tones or other dominant sources of plant noise.

Within 30 days after completing the pre-operational survey, the project owner shall submit a summary report of the survey to San Diego County and the CPM. Within 30 days after completing the operational survey, the project owner shall submit a summary report of the survey to San Diego County and the CPM. Included in the report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. Within 30 days of completion of installation of these measures, the project owner shall submit to the CPM a summary report of a new operational noise survey, performed as described above and showing compliance with this condition.