

CPUC PUBLIC MEETING COMMENT SHEET

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[Begin EE1]

Comment: This EIR should include a statement that acknowledges California will establish a hydrogen sulfide (H<sub>2</sub>S) noncancer chronic reference exposure level (REL). The State believes H<sub>2</sub>S poses a health risk to the public. The State has proposed 0.7 ppb (0.9 µg/m<sup>3</sup>) as the H<sub>2</sub>S inhalation REL. This directly effects PG&E's Geysers Power Plant.

[End EE1]

[Begin EE2]

The effects can impact in two key ways. One, the establishment of the REL follows Air Toxics "Hot Spots" Assessment Guidelines. Such a low REL, 0.7 ppb, can trigger very detailed and costly health risk assessments for the Power Plant as per "Hot Spots" requirements. The cost of such assessments could adversely effect the Plant's ability to compete in the deregulated electric generating industry.

[End EE2]

[Begin EE3]

Two, the proposed REL could substantially increase H<sub>2</sub>S abatement costs. California's ambient air quality standard is 0.03 ppm. It is based on threshold odor detection by humans. This standard plays a critical role on the mass emissions limits of H<sub>2</sub>S from the Power Plant. The relationship between the mass emissions limits and the REL could necessitate changes in those limits. Hence, modifications to equipment and operations coupled with increases in abatement chemical consumption costs imperil the Power Plant's competitive position.

[End EE3]

I believe it is imperative to address the REL issue's impact on the Geysers Power Plant's portion of the EIR.

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**EE. RONALD E. SUESS, J.D.**

- EE1 A noncancer chronic reference exposure level (REL) for hydrogen sulfide (0.7 parts per billion, ppb) was proposed in October 1997, but has not yet been approved. Presently, there is no monitoring method capable of accurately measuring hydrogen sulfide at these low levels; thus, it would be difficult to enforce compliance with such a standard if one is promulgated. If a chronic REL is approved but no ambient air standard is established, PG&E or the new owner may be required to revise the health risk assessments (HRAs) for the Geysers plants as part of the biennial update of the AB 2588 Air Toxics "Hot Spots" submission. Such an HRA would involve estimating a new chronic hazard index from plant emissions by including hydrogen sulfide in the calculations.
- EE2 All facilities that have prepared health risk assessments in California to comply with AB 2588 must submit biennial updates. These updates should include any revisions to toxics emissions from the plant and any revisions to the health risk assessment, if new reference doses are released by the California OEHHA. The cost for redoing the health risk assessment to address a new chronic exposure level that may be released by the Office of Environmental Health and Hazards Assessment (OEHHA) for hydrogen sulfide would be very small and would not affect the plant's ability to compete in the deregulated generating industry.

Typically, when a health risk assessment is carried out to comply with AB 2588, screening models are used initially using hypothetical worst-case meteorology. The cost for completing a screening approach is usually less than \$5,000. If the conservatively high screening results show significant impacts, then more detailed approaches are followed that use more realistic EPA Guideline dispersion models and meteorological data more representative of the site. Experience indicates that the cost for such a study should be no greater than \$20,000. Clearly, these costs would not affect the competitive nature of geothermal electricity generation.

- EE3 The Geysers plants are already controlling hydrogen sulfide emissions by using BACT. The residual emissions under normal operations are very small contributors to long term average (chronic) exposure levels of hydrogen sulfide in the region, and therefore would not be expected to cause any exceedances of a long term average standard. The issue that is more important is acute exposure to hydrogen sulfide from short-term releases during stacking and/or from well bleeds. These conditions are described more fully in the DEIR (pages 4.5-47 and 4.5-75). These short-term releases have occurred very infrequently in the past and are not expected to be major contributors to chronic exposure levels in the region. Furthermore, the releases are not expected to increase under divestiture. Therefore, the facilities should not require additional control over existing operations.