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SACRAMENTO MUNICIPAL UTILITY DISTRICT 6201 S Street, Box 15830, Sacramento, California 95813; (916) 452-3211

November 8, 1982

DIRECTOR OF NUCLEAR REACTOR REGULATION
ATTENTION JOHN F STOLZ CHIEF
OPERATING REACTORS BRANCH 4
US NUCLEAR REGULATORY COMMISSION
WASHINGTON DC 20555

DOCKET 50-312
RANCHO SECO NUCLEAR GENERATING STATION, UNIT NO. 1
ADEQUACY OF STATION ELECTRICAL DISTRIBUTION VOLTAGES REQUEST FOR INFORMATION

As requested in your letter of September 20, 1982, and previously stated in our letter of February 17, 1982 (Walbridge to Reid), the District will perform the required verification tests during the refueling outage, now scheduled to begin January, 1983. Results of the analysis will be submitted within 60 days of completion of the test.

In reviewing your minimum acceptable test criteria, we have the following comments. Our Class 1E buses at the 120/208 volt levels are part of a four channel 120V AC/125V DC system. Each channel has a 125 volt battery, a battery charger fed from a diesel backed Class 1E 480 volt bus, a 125V DC panel, an inverter, and a 120V AC panel. This system is isolated from voltage fluctuation on the AC system by the battery charger. The only Class 1E, 120V AC bus that is transformed down from a 480 volt bus is used exclusively for heat tracing and freeze protection. Since low voltage operation and protection of these piping systems has been adequately addressed in our analysis, the District does not propose to load, monitor, or analyze this bus as part of our verification test.

In validating our computer program, we accept that the correlation between results should be within 3% and that an error analysis must be performed; however, we do not accept your method of accounting for that error. You have assumed that the magnitude of the error is constant. We think the error is non-linear and dependent on input voltage. Further, the District contends that its analytical model is more conservative than the actual operating condition and that any error would result in higher voltages than calculated. Therefore, the District commits only to demonstrate to your satisfaction that our safety related equipment can perform its required function when the program error is applied to the results of our analysis for the degraded voltage situation.

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John F. Stolz

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Since we anticipate performing this test on or about January 22, 1983, we require that you submit any comments that may impact the test by December 17, 1982.

John J. Mattimoe

John J. Mattimoe
General Manager