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 Docket No. 50-312 ACRS-10
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Mr. J. J. Mattimoe
 Assistant General Manager and
 Chief Engineer
 Sacramento Municipal Utility District
 6201 S Street
 P. O. Box 15830
 Sacramento, California 95813

Dear Mr. Mattimoe:

SUBJECT: NUREG-0737, ITEM III.D.3.4 - CONTROL ROOM HABITABILITY REQUIREMENTS

Item III.D.3.4 is concerned with the protection of control room operators against the effects of accidental releases of toxic and radioactive gases under loss-of-coolant accident conditions. Your January 16, 1981 response to this item has been evaluated by the staff, and we conclude that upon completion of the modifications and other measures described in the enclosed Safety Evaluation Report (SER), the control room habitability requirements of Item III.D.3.4 have been met.

If you will not be able to complete the nine modifications and actions described in the SER during the September 1982 refueling outage, please contact your NRC Project Manager.

Sincerely,

"ORIGINAL SIGNED BY
 JOHN F. STOLZ"

John F. Stolz, Chief
 Operating Reactors Branch #4
 Division of Licensing

Enclosure:
 SER

cc w/enclosure: See next page

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Sacramento Municipal Utility
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Rancho Seco, Docket No. 50-312

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SER INPUT FOR RANCHO SECO UNIT 1 FROM THE
ACCIDENT EVALUATION BRANCH ON NUREG-0737 ITEM
NO. III.D.3.4, "CONTROL ROOM HABITABILITY"

III.D.3.4 CONTROL ROOM HABITABILITY REQUIREMENTS (NUREG-0737)

Position

In accordance with Task Action Plan Item III.D.3.4, "Control Room Habitability," licensees shall assure that control room operators will be adequately protected against the effects of accidental release of toxic and radioactive gases and that the nuclear power plant can be safely operated or shutdown under design basis accident conditions (Criterion 19, "Control Room," of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50).

Staff Evaluation

In response to the requirements of the Task Action Plan as promulgated in NUREG-0737, the licensee submitted a response to Item III.D.3.4 dated January 16, 1981.

In its submittal, the licensee provided a comprehensive evaluation of the control room habitability for Unit 1 at Rancho Seco. The licensee proposed the following modifications:

- 1) Augmentation of the present non-redundant (train "B") emergency control room heating, ventilation and air conditioning system (HVAC) with a redundant system (train "A");
- 2) Upgrading to seismic Category I the existing normal HVAC ducting, for distribution of the emergency HVAC train "A" cooling;
- 3) Upgrading the existing train "B" emergency HVAC to include filtered recirculation and additional cooling requirements; and

- 4) Providing automatic control room isolation on detection of high concentrations of chlorine or ammonia.

These modifications will provide a control room with isolation, filtered recirculation and filtered pressurization. Both train "A" and "B" of the new design will pressurize the control room with 1000 cfm. The licensee states that the new HVAC system will be single failure proof and the guidance of Standard Review Plan Section 6.5.1 and Regulatory Guide 1.52 will be met.

The licensee also proposes the following additional features:

- 1) A critical document reference file inside the control room;
- 2) Verification that the control room can be pressurized to 1/8" water gauge;
- 3) Self-contained breathing apparatus for at least five men inside the control room and a six hour bottled air supply with unlimited offsite replenishment, along with appropriate use procedures;
- 4) Administrative control over control room access; and
- 5) A potassium iodide drug supply in the control room.

The staff concludes that upon completion of the modifications and other measures described above, that habitable conditions can be maintained under toxic gas releases. In addition, the staff concludes that occupancy of the control room can be maintained under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of an accident.

In summary, upon completion of the modifications and other measures described above, the design will meet the criteria identified in Item III.D.3.4 of NUREG-0737 and is acceptable.

Dated: April 9, 1982