UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 14, 1978

Docket No.: 50-312

Mr. J. J. Mattimoe
Assistant General and
Chief Engineer
Sacramento Municipal Utility District
6201 S Street
P. O. Box 15830
Sacramento, California 95813

Dear Mr. Mattimoe:

By letters dated August 28 and October 17, 1978, you provided information relative to certain of the asterisked items of Section 3 of the Fire Protection Safety Evaluation Report (SER) for the Rancho Seco Nuclear Generating Station (see Amendment No. 19 of February 28, 1978). This information dealt with the detailed means for implementing certain of the modifications listed in the SER and scheduled for implementation by the end of the 1978 refueling outage. The above letters also described certain deviations you desired to make relative to the modifications described in the SER. The purpose of this letter is to advise you of the staff's conclusions regarding the acceptability of the asterisked modifications, based on review of the supplementary information, and the acceptability of the requested deviations.

Your letter of August 28, 1978 provided supplementary detailed information concerning the following asterisked items listed in the SER:

3.1.1(1) Install thermal insulation on functionally redundant Channel A, C and D conduits (in the Computer-Control Room).

3.1.1(7) Modify lube oil pump control circuits associated with the high pressure injection system to prevent loss due to fires in cabinet H1RC.

3.1.1(9) Development of procedure for placing the diesel generators in operation locally for fires in control room panel H2ES.

3.1.23(2) and 3.1.24(2) Provide for tripping of the fuel oil pumps by actuation of the CO_2 system (two diesel generator rooms).

You also provided additional information on the means for implementing these modifications or procedures at a meeting with the staff on September 14, 1978. We have reviewed the designs you have proposed for implementing these modifications and procedures. In particular, we have reviewed the design for modification 3.1.1(1) and find that it utilizes a design that has been adequately tested to demonstrate its fire resistance. Based on this review we conclude that the designs you have proposed for implementing these modifications and procedures will provide the protection the staff intended in its preparation of the SER and therefore are acceptable.

Your letter of August 28, 1978 also requested a deviation from the following previously approved modification:

3.1.31(1) Insulate all silver soldered pipe within fire areas 58, 50, 49, and 48 with calcium silicate insulation and stainless steel jacket.

The specific deviation you requested was to omit installation of this insulation in fire area 50, and instead, to maintain this section of cross-tie piping isolated except when the makeup pump is operating as a high pressure injection pump.

We have reviewed this request and find the deviation acceptable for the following reasons:

(1) Your commitment to maintain this uninsulated section of piping isolated except for periods when the makeup pump is aligned to also to serve as a high pressure injection pump (due to an outage of one of the two normal high pressure injection pumps) provides assurance that during most operating periods damage to this line due to fire would not affect the operability or redundancy of the associated engineered safety features.

(2) Should a fire occur in fire area 50 and damage this cross-tie piping during the period when the makeup pump is aligned to serve as a high pressure injection pump, the effect would be to disable the makeup pump. However, the capability to provide makeup to the primary system would not be affected since the operability of the remaining high pressure injection pump would not be damaged by loss of the silver soldered cross-tie piping. Although cabling associated with the B

high pressure injection pump is located in fire area 50, item 3.1.30 calls for rerouting or providing insulation to protect this cabling and thus a fire in this area will not affect the availability of high pressure injection pump B. A fire in fire area 50, therefore will not cause loss of both high pressure pumps, so that primary system makeup is available.

(3) The high radiation burden (~80 man-rem) that is estimated would be received by plant personnel while installing insulation in area 50.

Thus, based on the foregoing, we conclude that there is reasonable assurance that the deviation you requested relative to the modification described in Section 3.1.31(1) of the SER will allow the fire protection for fire area 50 to continue to conform to the guidance set forth in Section 2 of the SER and will also maintain radiation exposure of facility personnel as low as reasonable achievable. We therefore conclude that this deviation is acceptable.

Your letter of October 17, 1978 provided supplementary information concerning the following asterisked modifications listed in the SER:

3.1.33(1) Provide all cable trays which cross or which can propagate a fire across a fire zone line with a fire barrier.

3.1.39 The licensee has proposed to provide capability to communicate to the control room from the reactor building using portable radio communications units.

Based on our review of this information we find that the design proposed for modification 3.1.33(1) has been adequately tested by the licensee to demonstrate its fire resistance, and that the proposed design for the communications system will be such that a fire will not cause loss of communications between the reactor building and other areas. We therefore conclude that the designs you have proposed for implementing these modifications will provide the protection the staff intended in its preparation of the SER and therefore are acceptable.

Your letter of October 17, 1978 also requested a deviation with regard to the following modification listed in the SER:

3.1.15(2) Install a temperature detector in reactor building purge Unit A-536.

You correctly note that the requested deviation does not directly relate to the above description of the modification, but rather to the description given in Section 5.5.6 of the SER where it is stated that the temperature detectors will be installed for alarm and automatic damper actuation at charcoal filters.

You have indicated in your request that you do not believe that these detectors are needed for automatic damper actuation because very conservative analysis shows that there would be ample time for manual corrective action following receipt of an alarm signal in the control room. In discussions with the staff you have described the analysis you performed and the input assumptions. These include the loss of all gap radioactivity from one fuel assembly 72 hours after shutdown, no removal of this activity as it passes up through the pool water, all activity immediately absorbed by the filters, failure of the fans after absorption of the radioactivity and adiabatic heatup of the filter unit. Based on our review of your analysis, we agree that there would be ample time to respond to this event and therefore conclude that for modification number 1.1.15(2) a temperature detector need be provided only for the purpose of providing a timely alarm in the control room. Because this deviation does not change the bases or conclusions regarding this matter as stated in the SER, nor affect the ability of the revised modification to conform to the guidance set forth in Section 2 of the SER, we find this proposed deviation acceptable.

Sincerely,

for Gerald B. Zwetzig

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

cc: See next page

Sacramento Municipal Utility District

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