



**SMUD**

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

August 31, 1982

RICHARD C DE YOUNG DIRECTOR  
OFFICE OF INSPECTION AND ENFORCEMENT  
U S NUCLEAR REGULATORY COMMISSION  
WASHINGTON DC 20555

OPERATING LICENSE NO. DPR-54  
DOCKET NO. 50-312  
RANCHO SECO NUCLEAR GENERATING STATION UNIT NO. 1  
RESPONSE TO NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTIES

Licensee Sacramento Municipal Utility District hereby submits its response to the Notice of Violation and Proposed Imposition of Civil Penalties appended to Mr. Engelken's letter of June 24, 1982. Mr. James Lieberman of your Office, by telephone conversation of July 12, 1982 with Licensee's counsel, granted Licensee an extension until August 31, 1982 to submit our response.

Attachment 1 hereto constitutes Licensee's response, pursuant to 10 C.F.R. § 2.201, to the June 24, 1982 Notice of Violation. Additionally, pursuant to the provisions of 10 C.F.R. § 2.205, Attachment 2 hereto presents Licensee's answer to the Proposed Imposition of Civil Penalties. Our answer requests mitigation of the proposed civil penalties. The District disputes the NRC's position that the two subject violations constitute an overall breakdown in our control of the operable status of safety-related equipment. Rather, as set forth more particularly in our Responses, we view the subject violations as isolated occurrences, not indicative of the District's management control system.

We would be pleased to meet with you and your staff, after you have reviewed our Responses, to discuss these matters and any potential compromise of the proposed civil penalties pursuant to 10 C.F.R. §§ 2.203 and 2.205(g).

John J. Mattimoe  
Assistant General Manager  
and Chief Engineer

cc: R. H. Engelken 8209090019 820831  
J. Lieberman PDR ADOCK 05000312  
T. A. Baxter G PDR

IE-14

AFFIDAVIT OF JOHN J. MATTIMOE

City of Sacramento )  
                          ) ss.  
State of California )

JOHN J. MATTIMOE, being duly sworn according to law,  
deposes and states as follows:

1. I am Assistant General Manager and Chief Engineer  
of Licensee Sacramento Municipal Utility District.

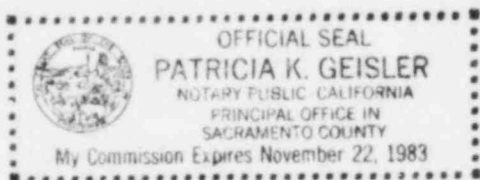
2. I have read Licensee's Responses to the NRC  
Notice of Violation and Proposed Imposition of Civil  
Penalties, know the contents thereof; and certify that said  
contents are true and accurate to the best of my knowledge and  
belief.

*John J. Mattimoe*  
\_\_\_\_\_  
JOHN J. MATTIMOE

Subscribed to and sworn before  
me this 31st day of August, 1982

*Patricia K. Geisler*  
\_\_\_\_\_  
NOTARY PUBLIC

My commission expires: 11-22-83



ATTACHMENT 1

SACRAMENTO MUNICIPAL UTILITY DISTRICT'S  
RESPONSE TO NRC NOTICE OF VIOLATION

Pursuant to 10 C.F.R. § 2.201, Sacramento Municipal Utility District ("Licensee" or "the District") hereby responds to the NRC Notice of Violation dated June 24, 1982.

NRC Allegation -- ITEM I

Technical Specification 3.7.2 C requires, "Both diesel generators shall be operable except that from and after the date that one of the diesel generators is made or found to be inoperable for any reason, reactor operation is permissible for the succeeding 15 days provided that during such 15 days the operable diesel generator shall be load tested daily and both startup transformers are available. If the diesel is not returned to service at the end of 15 days, the other diesel will be started and run with at least minimum load continuously for an additional 15 days. If at the end of the second 15 days the diesel is not returned to service, the reactor shall be brought to the cold shutdown condition within an additional 24 hours."

Contrary to the above requirements, from 8:20 a.m. on February 10, 1982 to 1:40 p.m. on February 11, 1982, the Train "B" diesel generator was inoperable for a period of 29 hours and 11 minutes with no load testing of the "A" diesel generator.

Additionally, several procedural errors contributed to exceeding the diesel generator limiting condition for operation. Upon returning the diesel generator to service subsequent to surveillance testing, the improper status of the reverse current relay was not identified and corrected, i.e. the diesel generator was not properly placed in the standby condition. On each subsequent shift during the 29-hour period, the auxiliary operators examined the status of the diesel generator and reported that the fault flag was not tripped. Also, the

shift turnover checklists for the shift supervisor and control room operator reported the diesel generator to be normal. In addition, the diesel generator trouble alarm was continually annunciated for the 29-hour period without the cause being identified and corrected.

Response to Item I

(1) Admission or Denial of the Alleged Violation. The District admits that the "B" diesel generator was inoperable for the time period described in the Notice of Violation and, further, admits that the operations staff failed to discover the tripped fault flag which indicated that the output breaker was not closed, thereby rendering the diesel generator inoperable. Licensee, however, disputes the NRC Staff's implication that the operations staff failed to respond promptly to the diesel generator trouble alarm.

Following the completion of monthly surveillance for the "B" diesel generator on February 10, 1982, a "B" diesel trouble alarm was received in the control room. This trouble alarm was immediately investigated and a high fuel filter differential pressure alarm was discovered on the Engine Control panel in the "B" diesel generator room. Because high fuel filter differential pressure will actuate the trouble alarm, it was assumed that this function had initiated the trouble alarm. The fuel filters were replaced on February 11, 1982; however, this action did not clear the diesel generator trouble alarm. Therefore, an investigation of a possible annunciator problem was initiated, and it was at this time

shift turnover checklists for the shift supervisor and control room operator reported the diesel generator to be normal. In addition, the diesel generator trouble alarm was continually annunciated for the 29-hour period without the cause being identified and corrected.

Response to Item I

(1) Admission or Denial of the Alleged Violation. The District admits that the "B" diesel generator was inoperable for the time period described in the Notice of Violation and, further, admits that the operations staff failed to discover the tripped fault flag which indicated that the output breaker was not closed, thereby rendering the diesel generator inoperable. Licensee, however, disputes the NRC Staff's implication that the operations staff failed to respond promptly to the diesel generator trouble alarm.

Following the completion of monthly surveillance for the "B" diesel generator on February 10, 1982, a "B" diesel trouble alarm was received in the control room. This trouble alarm was immediately investigated and a high fuel filter differential pressure alarm was discovered on the Engine Control panel in the "B" diesel generator room. Because high fuel filter differential pressure will actuate the trouble alarm, it was assumed that this function had initiated the trouble alarm. The fuel filters were replaced on February 11, 1982; however, this action did not clear the diesel generator trouble alarm. Therefore, an investigation of a possible annunciator problem was initiated, and it was at this time

that the dropped fault flag on the "B" diesel generator output breaker was discovered.

(2) The Reasons for the Violation if Admitted. The reason for the violation cannot be laid to error or neglect on the part of the operations staff, as implied by the Notice of Violation. Rather, as discussed below, this violation was caused by equipment design and insufficient training regarding interpretation of system status.

At the time of the occurrence, the diesel generator reverse current (which prevented the closure of the output breaker) was connected to the diesel generator trouble alarm. Operating procedures and training received by the operations staff led to the understanding that actuation of the diesel generator trouble alarm did not indicate that the diesel generator was inoperable. Obviously, in this situation, this understanding was incorrect as failure of the output breaker to close did render the diesel inoperable.

Beyond this, the dropped fault flag indicating the failure of the output breaker to close was not discovered by the operations staff, despite routine checks of the diesel generator operability by each shift. This failure to identify the dropped fault flag was caused in part by the difficulty in locating the flag itself and by insufficient attention in training the staff regarding the location of these indicators.

(3) The Corrective Steps Which Have Been Taken and the Results Achieved. In order to correct the deficiencies which led to this violation, white indicating boxes have been added to each relay cover where the trip flag indicator is located.

This modification assures that the operator has checked the proper location and has identified the circuit condition then present. Additional training for operations personnel has been conducted to ensure that the location and meaning of target flags was understood.

(4) The Corrective Steps Which Will Be Taken to Avoid Further Violations. The diesel generator reverse current will be disconnected from the diesel generator trouble alarms and properly put on the diesel generator "auto start inoperable" alarms. Other diesel generator trouble alarm initiators are being reviewed to assure that conditions which render the diesel generators inoperable are properly annunciated.

(5) The Date When Full Compliance Will Be Achieved. The diesel generator alarm modification described above will be completed by September 17, 1982.

#### NRC Allegation -- ITEM II

Technical Specification 3.3.1.A.2 states in part, "The reactor shall not remain critical, unless the following conditions are met: ...Two out of three high pressure injection pumps shall be operable..."

Technical Specification 3.3.2 states that, "Maintenance shall be allowed during power operation on any component(s) in the high pressure cooling system..., which will not degrade safety features system A or B below the level of performance with the single subsystem removed from service... If the system being repaired is not restored to meet the requirement of specification 3.3.1 within 48 hours, the reactor shall be placed in a hot shutdown condition within 12 hours."

Contrary to the above, while the makeup pump was out of service, the "B" High



Pressure Injection (HPI) Pump was made inoperable at 7:05 p.m. on February 26, 1982, and continued in that condition unknown to the operating personnel until 1:17 p.m. on March 1, 1982.

Additionally, several procedural errors contributed to exceeding the emergency core cooling system limiting condition for operation (3.3.1.A.2). Upon returning the HPI pump to service, the circuit breaker charging spring motor disconnect switch for the pump motor was not returned to the correct position. On each subsequent shift during the 66-hour period, the auxiliary operators examined the status of the HPI pump and reported that the switch was in the correct position. Also, the shift turnover checklists for the shift supervisor and control room operator reported the HPI pump to be operable.

#### Response to Item II

(1) Admission or Denial of the Alleged Violation. The District admits that the "B" HPI pump was inoperable during the time period described in the Notice of Violation in contravention of the station Technical Specifications.

(2) The Reasons for the Violation if Admitted. As with Item I above, the failure to detect the inoperable status of the "B" HPI pump is not due solely to error or neglect on the part of the operations staff.

Following maintenance on the "B" HPI pump, the power for the DC charging motor (which maintains the supply breaker closing spring) was not reenergized as required. This resulted in an inability to close the breaker, rendering the "B" HPI pump inoperable.

Subsequent surveillance of HPI system status failed to detect the inability to close the breaker because the HPI



indicator light showed the availability of electric power to the system. Although the operators assumed that this indicator meant that the breaker was operable, in reality this light does not indicate the position of the closing spring or its uncharged state.

(3) The Corrective Steps Which Have Been Taken and the Results Achieved. Licensee has taken several actions, described below, designed to prevent the recurrence of this event.

a. Immediately following the discovery of this situation, the District initiated augmented training of its operators clarifying the breaker racking procedures and emphasizing the significance of those steps. This additional training provides assurance that breakers will be properly energized following routine maintenance.

b. Additional training has been provided emphasizing that the position of the charging spring itself must be observed in order to verify the operability of safety-related equipment.<sup>1/</sup> The recording log and associated procedure have been clarified to properly state the conditions as encountered by the operators when equipment is taken out or returned to service and for recording equipment status during the shift.

---

<sup>1/</sup> In order to determine the position of the charging spring itself, an equipment door must be opened to provide a view of the spring behind other components. Since this action could increase the possibility of a trip, this procedure will be performed only until the permanent modification described in (4) below has been implemented.

(4) The Corrective Steps Which Will Be Taken to Avoid Further Violations. Indicator lights will be installed on each safety-related breaker in order to provide the operators with an easily identifiable, positive indication of charging spring position.

(5) The Date When Full Compliance Will Be Achieved. The modification, described in (4) above, to provide positive indication of charging spring position, will be completed during the next refueling outage (scheduled for January, 1983).

Additional Information Requested

Mr. Engelken's letter requested that, in addition to the items enumerated in 10 C.F.R. § 2.201, Licensee's response should include our specific corrective actions and implementation dates relating to the following:

(1) Clarification of Our Control of the Operable Status of Safety-Related Equipment. Licensee's actions, described above, to correct the deficiencies and to avoid further violations, provides the requisite clarification of control of the operable status of the relevant safety-related equipment. In addition, Licensee hired an independent consultant to review the non-licensed operator training program and to review management controls for their effectiveness in supplying information to the Shift Supervisors responsible for operating the plant. A copy of the consultant's report was forwarded to R. H. Engelken at Region V on June 9, 1982. The consultant's recommendations are now in the process of implementation.

(2) Steps Taken To Ensure that Dual Verification as Prescribed by NRC's April 10, 1980 Order is Sufficient to Ensure Operability of Safety-Related Equipment. As explained in Attachment 2 of Licensee's Response, we do not view this NRC Order to be relevant to the instant violations. The policy of providing dual verification of valving and equipment line-ups remains in place, however, and has proven to be effective in assuring equipment operability.

(3) Action Planned or Taken to Assure that Auxiliary Operators' Duties and Responsibilities are Clearly Defined and that the Operators are Appropriately Trained in Their Duties. Licensee's corrective actions, which are fully described above, include additional operator training, improved display information, and clarification of relevant procedures. As explained in (1) above, the independent consultant hired by Licensee made several recommendations to improve non-licensed operator training and supervisor information. Those recommendations are now in the process of implementation.

(4) Actions Planned or Taken to Ensure That Licensed Operators Follow Procedures for Trouble Annunciators as Well as Alarm Annunciators. As explained above in response to NRC Item (or Violation) I, the operators did pursue the diesel generator trouble alarm. The cause of the alarm, however, was misdiagnosed initially due to the operating procedures and training received, as well as the display indications. The corrective actions undertaken by Licensee, and described above, are responsive to these deficiencies.

ATTACHMENT 2

SACRAMENTO MUNICIPAL UTILITY DISTRICT'S  
RESPONSE TO NRC PROPOSED  
IMPOSITION OF CIVIL PENALTIES

---

In accordance with the provisions of 10 C.F.R. § 2.205(b), Sacramento Municipal Utility District ("Licensee" or "the District") herein presents its answer to the NRC's Proposed Imposition of Civil Penalties requesting, inter alia, mitigation of the proposed civil penalties to a level below the base civil penalty for Severity Level III violations.<sup>2/</sup>

In its June 24, 1982 Notice of Violation and Proposed Imposition of Civil Penalties, the NRC proposes to impose civil penalties totalling \$120,000 against the District on the basis of two Severity Level III violations. According to the provisions of Appendix C to 10 C.F.R. Part 2, the penalties which the NRC seeks to assess against the District represent an increase of 50% over the base penalty for Severity Level III violations. Licensee understands that Section IV.B. of Appendix C sets out those factors that the NRC considers in determining whether to increase or decrease the base penalty for each violation. While the June 24, 1982 Notice of Violation does not state specifically the factors upon which the NRC based its decision to propose a 50% increase above the base penalty, Licensee assumes that this increase is based upon the NRC's perception of the subject violations as repetitive

---

<sup>2/</sup> Tables 1A and 1B of Appendix C to 10 C.F.R. Part 2 establish the base civil penalty for a Severity Level III violation at a power reactor to be \$40,000.

in nature and as an indication of the District's purported failure to take effective corrective actions, as described in Mr. Engelken's cover letter. As noted in Licensee's response to the Notice of Violation (Attachment 1), the District has admitted that the subject violations occurred. However, as set forth more particularly below, Licensee disputes the basis for the Staff's proposed increased civil penalty and, further, believes that Licensee's actions subsequent to discovery of the violations should result in a reduction of the proposed penalties below the base levels.

Mr. Engelken, in his letter of June 24, 1982, has cited several previous reportable occurrences and a previous enforcement action against the District as support for the allegation that the subject violations are repetitive in nature. With respect to the first violation, regarding the inoperability of the "B" diesel generator, Licensee agrees that the circumstances involved are similar to those reported in LER 81-33. Following the LER 81-33 occurrence, Licensee committed to move the open relay condition from the diesel trouble alarm to the diesel not ready for auto start alarm and, further, to investigate better relay marking techniques to assure that inabling conditions would be identified. At the time that the event occurred which led to the subject violation, these modifications had not yet been implemented due, in part, to the heavy workload involved in implementing post-TMI modifications. Presently, as described in Attachment 1, a portion of these modifications has been completed

with the remainder scheduled for implementation by September 17, 1982. Since Licensee was in the process of implementing these corrective actions at the time that the subject violation occurred, we do not believe an increased penalty for inadequate corrective action is proper or necessary.

The second violation described in the NRC Notice of Violation dealt with the unavailability of the "B" HPI pump. The District understands, on the basis of Mr. Engelken's letter, that the NRC views this event as similar to those which led to the 1980 Enforcement Action and Order and to a Licensee Event Report (LER 79-11) submitted by the District in 1979. As set forth below, the District disagrees with the NRC perception of this event as repetitive of the previous occurrences.

LER 79-11 reported an event in which the Reactor Building Emergency Cooling Unit A-500C and its associated breaker were rendered inoperable due to a mispositioned toggle switch which disconnected the charging spring. As we discussed in our submittal of September 13, 1979 regarding this LER, the District believes that, due to the location of the toggle switch, its position may have been inadvertently changed due to an individual brushing against the switch. The corrective action taken to prevent this event recurring was the institution of a log sheet on which the proper position of the disconnect switch is verified every eight hours. In contrast to the above, the present violation, while involving the incorrect position of a charging spring, was not due to the inadvertent mispositioning of a toggle switch, but rather to the failure



to reenergize a charging motor following surveillance. Further, we would note that the corrective action taken following LER 79-11 (verifying toggle switch position) would not have prevented the event which resulted in the present violation. The District, then, disputes that this violation is similar to LER 79-11.<sup>3/</sup>

Mr. Engelken also relies upon the reportable occurrences which led to the 1980 Enforcement Action as instances which are similar to the Item II violation. These instances, which involved the inoperability of various components within the HPI system on different occasions, led the District to institute a policy of dual verification of valving and equipment line-ups when safety-related equipment is removed from or placed into service.

The policy of providing dual verification of valving and equipment line-ups remains in place and has proven to be effective in assuring equipment operability. However, as described in Attachment 1, the failure to identify the inoperable status of the "B" HPI pump was not due to a failure to review the status of the equipment, but to an incomplete understanding of exactly with what subcomponents the indicator light was associated. Corrective action taken by the District will preclude the recurrence of this type of event. Again, the District believes that these events are not truly similar,

---

<sup>3/</sup> In this regard, we would note that the NRC has defined "similar" as "...those violations which could have been reasonably expected to have been prevented by the licensee's corrective action for the previous violation." 10 C.F.R. Part 2, Appendix C at n. 4.



as described by Appendix C to 10 C.F.R. Part 2, and, therefore, fines beyond the base civil penalty should not be imposed.

Finally, with respect to the other Appendix C, Section IV.B. factors which are considered in determining whether to increase or decrease the civil penalty, the District would emphasize that both violations were discovered, promptly reported to the NRC, <sup>4/</sup> and corrective action initiated prior to the issuance of the Notice of Violation and that neither violation represented multiple examples of a particular violation during the inspection period. Rather than limiting corrective action to the specific violations alone, the District hired an independent consultant to investigate the two general areas of concern raised by the violations, non-licensed operator training and supervisor information controls, and is now in the process of implementing that consultant's recommendations. This comprehensive response of the District to the noted violations is entitled to consideration under the Commission's enforcement policy.

---

<sup>4/</sup> Reduction of up to 50% of the base civil penalty may be given when a licensee identifies the violation and promptly reports the violation to the NRC. Section IV.B.1, Appendix C to 10 C.F.R. Part 2.