

The Petition was subsequently referred to the Office of Nuclear Reactor Regulation for response. By letter dated June 22, 1987, the Director, Office of Nuclear Reactor Regulation, advised the Petitioners that the issues raised in the Petition were under consideration, and that the NRC would respond within a reasonable time. For the reasons set forth below, I have determined that the Petition should be denied.

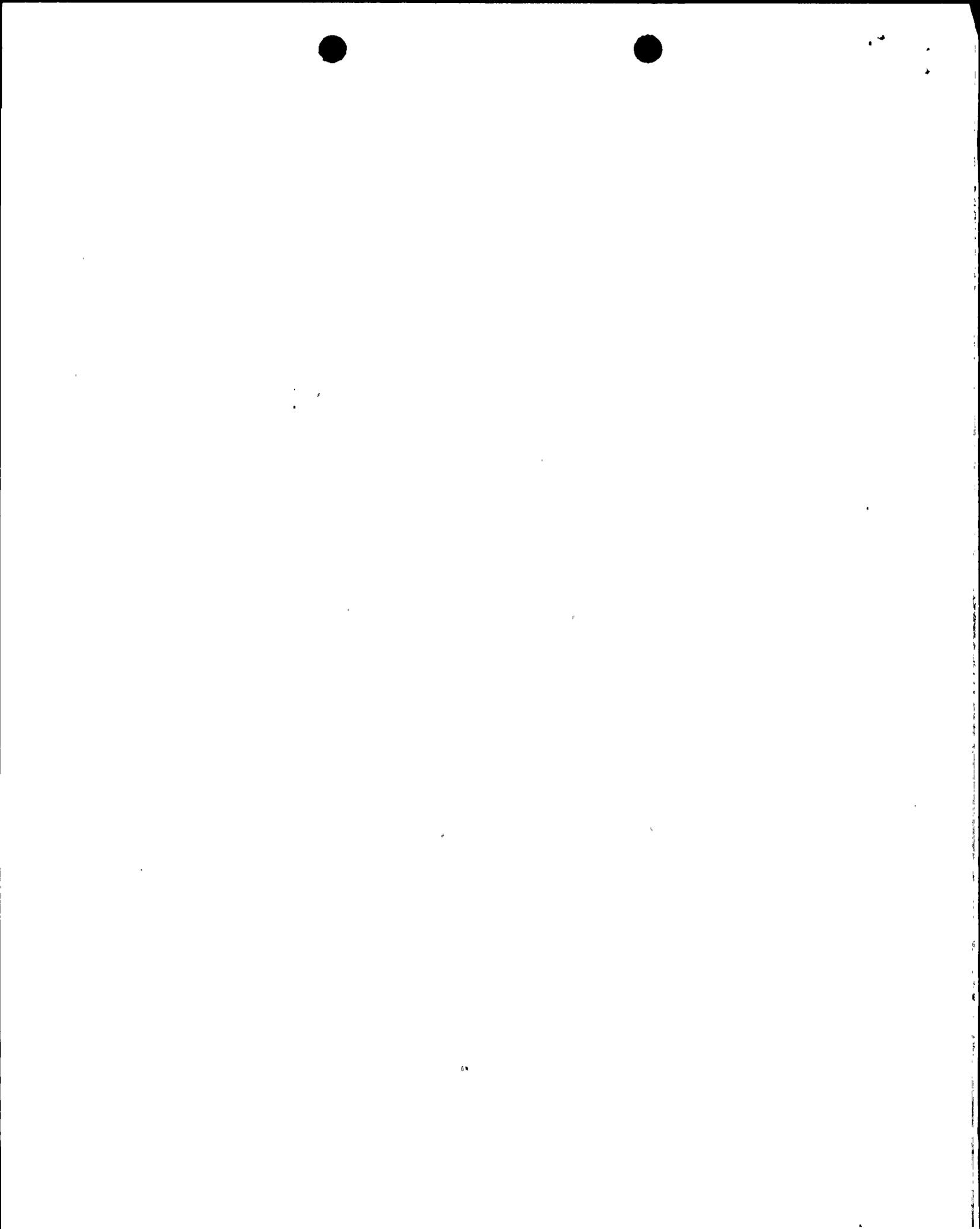
#### DISCUSSION

This Petition concerns an event that occurred on January 20, 1987 at the Licensees' Palo Verde Nuclear Generating Station, Unit 1. During the event, a Control Room Shift Supervisor intentionally overrode an automatic trip function (which is to actuate on low steam line pressure) of the main steam isolation system (MSIS). The MSIS is an engineered safety system.

The Petitioners allege that disabling of this engineered safety system was unauthorized, and that plant management's response to the event was representative of the failure of Palo Verde personnel and management to fully appreciate the significance of safety-related events and to adopt a thorough, diagnostic approach to such events to prevent their recurrence.<sup>1/</sup> They also point to several past violations (included as Appendices 2 and 3 to the Petition) as additional examples of management's failure in these areas.

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<sup>1/</sup> The Petitioners base these allegations on a letter dated March 13, 1987, from the NRC to the Licensees (included as Appendix 1 to the Petition), which raised specific issues associated with the event and concerns with the licensees' management's response to the event.



According to the Petitioners, a high number of Licensee Event Report incidents at Palo Verde, Units 1 and 2 and the fact that the Arizona Nuclear Power Project is still in the early years of attitude formation, have increased the importance of instilling a thorough and diagnostic approach to event assessment and operator behavior through regulatory disciplinary action.

The January 20, 1987 disabling event was reported by the Licensees to the NRC in Licensee Event Report 87-007, dated February 18, 1987. As documented in that report, the reactor operating personnel did intentionally disable the Palo Verde, Unit 1 MSIS automatic function when steam line pressure was about 25 psia. At the time, the reactor was subcritical and was being cooled from Mode 4 to Mode 5 with the No. 2 steam generator because of a tube leak in the No. 1 steam generator.

The NRC staff examined the circumstances surrounding the event, and reviewed the applicable plant procedures and regulatory requirements, to ascertain whether a violation of a regulatory requirement had occurred during the event. The results of the staff's review, as reported in NRC Inspection Report No. 50-528/87-17<sup>2/</sup>, can be summarized as follows:

- (1) The operating crew intentionally disabled the MSIS feature to keep the main steam isolation valves (MSIVs) open to minimize plant radiological contamination and to avoid potential MSIV damage. Before disabling the MSIS feature, the operating crew determined that this action was allowed by plant procedures and Technical Specifications, as discussed below.

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<sup>2/</sup> Inspection Report No. 50-528/87-17, July 24, 1987 (Paragraph 13).



- (2) The MSIS feature was disabled in accordance with plant Procedure 36MT-9SB03, "PPS Bistable Input Simulation." This procedure allows the crew to simulate inputs to the plant protection system (PPS) bistables. Paragraph 5.3 of the procedure requires the Shift Technical Advisor (STA) to verify that action taken under the procedure is allowed by the Technical Specifications.
- (3) The STA verified that the unit would be in compliance with the Limiting Condition for Operation (LCO) in Technical Specification 3.0.3. This LCO required the unit to be placed in a cold shutdown condition (Mode 5) from a hot shutdown condition (Mode 4) within 24 hours when a system-specific LCO and the LCO's associated action statement are not met. After the crew disabled the MSIS feature, they put the unit in a cold shutdown condition in approximately 1 hour and 18 minutes.
- (4) The implementation of Procedure 36MT-9SB03 was controlled in accordance with a plant work control procedure under Work Order 00203545.

On the basis of its review, the staff concluded that the operating crew complied with the Licensees' procedures. However, the procedures were based on a misinterpretation of the NRC's intent concerning the use of Technical Specification 3.0.3. The misinterpretation of this particular Technical Specification may in part be the result of a lack of specific NRC guidance with respect to



the use of Technical Specification 3.0.3 for the specific situation at Palo Verde. Therefore, we concluded that the Licensees' procedures inappropriately applied Technical Specification 3.0.3 for the purpose of operational convenience. Based on the minimal safety significance of this incident<sup>3/</sup> and the lack of clear NRC guidance, we conclude that enforcement action is unwarranted.

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<sup>3/</sup> The staff evaluated the safety implications of the actions taken by the Licensees during this specific event. Based on that review, the staff has concluded that the facility had not been placed in an unsafe condition during this event for the following reasons:

- (1) The Technical Specifications (Table 2.2-1) allow the MSIS trip setpoint to be set 200 psi below the actual steam line pressure whenever the plant is in Mode 3 or 4. Therefore, with an actual steam line pressure of 25 psia, the trip setpoint could have been set at 0 psia, which would have effectively removed the trip function of the MSIS.
- (2) At the time of the event, the reactor was shut down in Mode 4 with all control rods inserted and the reactor coolant system borated to cold shutdown conditions.
- (3) The automatic MSIS feature on low steam line pressure is provided primarily to terminate or mitigate a main steam line break and the resulting cooldown of the primary system. At the time of the event, the No. 1 steam generator was already isolated and the No. 2 steam generator pressure was approximately 25 psia. Because the main steam line design operating pressure is approximately 1000 psig, the probability of a steam line break at 25 psia was extremely remote.
- (4) With the reactor coolant system borated to a cold shutdown condition, the reactivity addition resulting from an uncontrolled cooldown could not have resulted in a return to criticality.
- (5) Water injection capability was available to allow rapid recovery from any reactor coolant system contraction resulting from a cooldown.



The Licensees' future entry into Technical Specification 3.0.3, however, must be better controlled. In order to have better control, the Licensees have improved their plant administrative procedures to utilize Technical Specification 3.0.3 appropriately.<sup>4/</sup>

In addition, as part of a technical specifications improvement program for all licensees, the staff has issued Generic Letter 87-09, dated June 4, 1987, which provides guidance on short term improvements and includes clarifications in some areas. This Generic Letter specifically clarifies the intent of LCO 3.0.3 by stating that it is "not intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being inoperable." Rather, as indicated by this generic letter, the intended purpose of LCO 3.0.3 is to provide time limits for an orderly shut-down when the individual Limiting Conditions for Operation and/or Action statements in other specifications cannot be complied with. Now that this clarification has been issued, future similar occurrences may be subject to citation in accordance with the Commission's enforcement policy.

The Petitioners also expressed concern that Licensees' management has generally failed to appreciate safety significant events, has not adopted a thorough, root-cause, diagnostic approach to plant events, and has allowed an excessive number of personnel errors to be committed at the facility.

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<sup>4/</sup> Inspection Report No. 50-528/87-10, May 21, 1987 (page 15).



As examples of these concerns, the Petitioners have included as Appendices to their Petition three NRC letters concerning instances where management inadequacies may have existed. In response to these concerns, the staff has reviewed the Licensees' cumulative activities and has found that the Licensees' overall management performance is acceptable. This finding is reflected in the NRC's most recent Systematic Assessment of Licensee Performance report on Palo Verde dated January 15, 1987 which has found the Licensees' overall performance to be satisfactory. Also, as documented in other recent NRC reports on Palo Verde, the staff has found that the Licensees are implementing a root-cause determination program and have recently made improvements in this program.<sup>5/</sup> The staff will continue to closely review the Licensees' performance and will identify areas of the Licensees' performance where improvements may be warranted.

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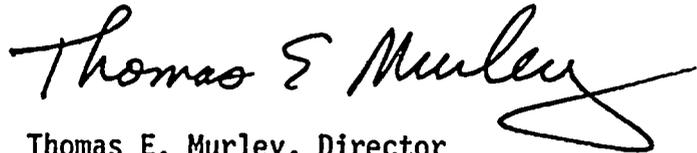
<sup>5/</sup> Inspection Report No. 50-528/86-38, January 13, 1987 (page 3), Inspection Report No. 50-528/86-37, January 26, 1987 (Paragraph 14), Inspection Report No. 50-528/87-19, June 12, 1987 (page 2), and Inspection Report No. 50-528/87-17, July 24, 1987 (Paragraph 14).



CONCLUSION

On the basis of the foregoing discussion, the information contained in the referenced documents, and in consultation with the Office of Enforcement, I have concluded that enforcement action is unwarranted.

Accordingly, the Petitioners' request for a civil penalty against the Licensees is denied. A copy of this Decision will be filed with the Secretary of the Commission for the Commission's review in accordance with 10 CFR 2.206(c) of the Commission's regulations.



Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 14th day of March 1988