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April 24, 1984

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Director, Office of Nuclear Reactor Regulation
Attention: Mr. D. M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Fire Protection Program Review
San Onofre Nuclear Generating Station
Unit 1

- References:
1. Letter from K. P. Baskin, SCE, to D. M. Crutchfield, NRC, dated June 30, 1982
 2. Letter from K. P. Baskin, SCE, to D. M. Crutchfield, NRC, dated December 16, 1982
 3. Letter from D. M. Crutchfield, NRC, to R. Dietch, SCE, dated November 18, 1982
 4. Letter from D. G. Eisenhut, NRC, to R. Dietch, SCE, dated March 23, 1983

Reference 1, as supplemented by Reference 2, provided our plans and schedules for meeting the safe shutdown requirements of Section III.G of Appendix R to 10 CFR 50 by using an Alternate Shutdown System. Reference 1 also requested an exemption from the schedular requirements of 10 CFR 50.48(c) to allow installation of the Alternate Shutdown System in conjunction with future SEP modifications. Reference 3 provided NRC approval of the alternate shutdown capability described in Reference 1. Reference 4 transmitted an exemption decision which granted a deferral of the implementation schedules of 10 CFR 50.48(c). The exemption defined October 31, 1983 to be the appropriate date to be used for computing the implementation schedules for fire protection features specified in 10 CFR 50.48.c(3) and (4). This revision to 10 CFR 50.48(c)(4) governing dedicated and alternate shutdown systems required dedicated shutdown modifications to be completed 30 months after October 31, 1983 and alternate shutdown modifications to be completed during an outage commencing 180 days after October 31, 1983 which was either: (1) the first refueling outage; (2) another planned outage that lasts at least 60 days; or (3) an unplanned outage that lasts at least 120 days. Accordingly, the modifications for the Alternate Shutdown System of References 1 and 2 would be required to be installed prior to startup from the current outage.

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The Alternate Shutdown System used an integrated approach developed to serve broad safety goals which included modifications for Appendix R compliance and modifications expected to result from SEP Integrated Assessment. To date, no large set of design modifications has been identified as part of SEP Integrated Assessment. Therefore we now consider it appropriate to limit the design of the shutdown system to satisfy only the requirements of Section III.G of Appendix R. A system of this type would be of limited scope and would therefore facilitate compliance with NRC schedules and requirements. To this end, a conceptual scheme for a Dedicated Shutdown System has been developed.

Enclosure 1 provides a conceptual study of a Dedicated Shutdown System which will achieve safe shutdown in compliance with the requirements of Section III.G.3 of Appendix R. The system is designated as "dedicated" because the major modification involves the addition of a new dedicated power source. The dedicated source consists of a non-safety related diesel generator to be used only for post-fire shutdown. The number of systems necessary for shutdown is reduced by the use of the steam generators in a single phase mode of heat transfer to achieve and maintain cold shutdown until normal equipment can be repaired. Instrumentation and control will be provided as necessary to comply with Section III.L of Appendix R and all generic guidance issued subsequent to the effective date of 10 CFR 50.48. Operator action will be relied upon as appropriate to provide required system control. The impact of the associated circuits issue is minimized by using dedicated power supplies only. The normal sources of electrical power will be completely de-energized using a procedure similar to the one now used for the interim safe shutdown procedures.

The implementation schedule for the Dedicated Shutdown System modifications is now defined by the exemption decision of Reference 4. This exemption allows for the installation of a dedicated shutdown system 30 months after October 31, 1983. It is our intent to follow this schedule. This schedule would allow for completion of all remaining fire protection modifications by April 30, 1986 which is coincident with the next refueling outage (Cycle 9) now scheduled to commence by April 1, 1986.

It is our intent to proceed with the engineering, procurement and construction efforts to implement the Dedicated Shutdown System as soon as practicable to assure completion prior to startup from the Cycle 9 refueling outage. This will include efforts associated with achieving compliance with Section III.G of Appendix R in areas other than the Dedicated Shutdown System, such as the revisions to the Fire Hazards Analyses Report to reflect the Dedicated Shutdown System and the revision of fire areas to comply with the above mentioned requirements. It is our intent to maintain close contact with the NRC staff to assure that our planned modifications are in compliance with the Appendix R Requirements. In addition, the information requested in Generic Letter 81-12 as clarified by letter dated May 10, 1982 will be provided when the engineering efforts for the Dedicated Shutdown System have developed to a state where useful information is available for your review.

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It should be noted that during the existing extended outage at San Onofre Unit 1 we intend to complete implementation of all required fire protection modifications, including those of applicable Appendix R requirements, with the exception of Section III.G. These detection, suppression, and mitigation systems which have been added during this outage in conjunction with those previously installed, have substantially improved fire protection at San Onofre Unit 1. These measures, in addition to the modifications and procedures which have provided an alternate interim shutdown capability have been, to date, found acceptable. Therefore, there is no undue risk to the health and safety of the public involved with allowing continued operation to complete Cycle 8 and with installation of the remaining Appendix R safe shutdown modifications prior to startup for Cycle 9 operation.

It is therefore requested that NRC concurrence regarding our plans and schedules be provided as soon as possible to allow for project planning and incorporation of the dedicated shutdown modifications into the Integrated Living Schedule. In addition, please review and approve the conceptual design of the Dedicated Shutdown System provided as Enclosure 1.

If you have any questions or desire additional information regarding this submittal, please contact me.

Very truly yours,

M. D. Meckford