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Docket No. 50-206

NOV 15 1979

Mr. James H. Drake  
Vice President  
Southern California Edison Company  
2244 Walnut Grove Avenue  
Post Office Box 800  
Rosemead, California 91770

Dear Mr. Drake:

RE: COMPLETION OF SEP TOPIC VI-10.B - SAN ONOFRE UNIT 1

Your letter dated May 17, 1979, indicated that you have examined our draft evaluation of the subject topic dated April 18, 1979. You suggested editorial or corrective changes to the assessment to make it more accurately reflect your facility design. We have incorporated your suggested modifications in the enclosed assessment. With these modifications our review of SEP Topic VI-10.B is complete and will be a basic input to the integrated assessment of your facility.

The subject assessment compares your facility design with the criteria currently used by the staff in licensing new facilities. This assessment may need to be re-examined if you modify your facility or if the criteria are changed before we complete our integrated assessment.

Sincerely,  
Original Signed by  
Thomas V. Harbach

*for*

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Enclosure:  
Completed SEP  
Topic VI-10.B

cc w/enclosure:  
See next page

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*MA*

*CCP*

OFFICE	DOR:ORB #2	DOR:ORB #1	DOR:ORB #2		
SURNAME	PWO'Connor:ah	DCrutchfield	DLZiemann		
DATE	10/1/79	10/13/79	10/5/79		

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Mr. James H. Drake

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November 15, 1979

cc w/enclosure:

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COMPLETE - November 15, 1979

SEP REVIEW  
OF  
SHARED ENGINEERED SAFETY FEATURES,  
ONSITE EMERGENCY POWER, AND SERVICE SYSTEMS  
FOR  
MULTIPLE UNIT STATIONS  
TOPIC VI-10.B

### INTRODUCTION

The safety objective of Topic VI-10.B is to assure that: (1) the interconnection of ESF, on-site emergency power, and service systems between different units are not such that a failure, maintenance or testing operation in one unit will affect the accomplishment of the protection function of the system(s) in other units, (2) the required coordination between unit operators can cope with an incident in one unit and safe shutdown of the remaining unit(s), and (3) system overload conditions will not arise as a consequence of an accident in one unit coincident with a spurious accident signal or any other single failure in another unit. This objective applies only to safety related equipment and structures.

The sharing of structures, systems and components important to safety for a multiple unit facility can result in a reduction of the number and of the capacity of on-site systems to below that which normally is provided for the same number of units located at separate sites. NRC General Design Criterion 5, "Sharing of structures, systems and components," was developed to ensure that sharing of structures, systems, and components important to safety among nuclear power units will not significantly impair their ability to perform their safety functions, including, in the event of an accident in one unit, orderly shutdown and cooldown of the remaining units.

This evaluation addresses only the non-Electrical, Instrumentation, and Control (EI&C) portions of this topic i.e. fluid systems and components and structures. The EI&C portions will be evaluated later in the SEP. In the course of this evaluation, we determined that the review of shared structures and equipment at the Dresden Unit Nos. 1 and 2 facilities could not be completed prior to the completion of other related SEP topic reviews. These related topics are identified in the evaluation; and, upon completion of these topics, this evaluation will be updated. Topic VI-10.B is applicable to the following SEP plants which are located at multiple unit sites:

San Onofre 1

Millstone 1

Dresden 1 and 2

#### Evaluation and Conclusion

##### San Onofre 1

San Onofre Unit 1 is an operating plant which utilizes a Westinghouse pressurized water reactor for its nuclear steam supply system while Units 2 & 3, which utilize Combustion Engineering pressurized water reactors for their nuclear steam supply systems, are under review for the issuance of operating licenses.

Shared systems is a review concern which is normally addressed in the course of an Operating License review. The Final Safety Analysis Report for San Onofre Units 2 and 3 discusses shared structures, systems and

components for Units 2 and 3 only and does not identify any interfaces between these units and Unit 1. Therefore, the staff conducted a review to identify and evaluate the structures and equipment shared between Unit 1 and Units 2 and 3. Based on this review, we identified the Service Water Reservoir (SWR) and its associated piping and components as the only shared components which could affect the safe shutdown capability of Unit 1\*. This is because the SWR provides water to both the Unit 1 fire protection water system, which can be used to supply water to the other units, and to the Unit 1 safe shutdown systems (Auxiliary Feed System). However, the Unit 1 Technical Specifications (Section 3.4 and 3.14) acceptably account for this sharing of the SWR by requiring the licensee to maintain adequate SWR water inventory for both safe shutdown and fire fighting purposes.

Based on the results of our review as summarized above, we conclude that 1) the safety objective of Topic VI-10.B is met for San Onofre 1, 2) the sharing of the SWR is in conformance with GDC 5, and 3) there are no electrical instrumentation and control systems shared between San Onofre Unit 1 and Units 2 and 3 except the switchyard as permitted by GDC 17.

\*Refer to the SEP Review of Safe Shutdown Systems for San Onofre 1.  
(NRC Letter to Licensee dtd. 2/9/79)