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December 26, 1989

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Revised Status of Implementation of
Unresolved Safety Issue Requirements
San Onofre Nuclear Generating Station
Unit 1

Reference: Letter, F. R. Nandy to NRC, "Status of Implementation of
Unresolved Safety Issue Requirements, San Onofre Nuclear
Generating Station, Unit 1," dated November 30, 1989

The referenced letter transmitted the status of implementing Unresolved Safety Issue (USI) requirements at San Onofre Unit 1 (SONGS 1) in response to Generic Letter 89-21. The enclosure to the referenced letter has been revised to correct and clarify information based on subsequent conversations with the NRC (Mr. C. Trammell, Senior Project Manager, and Mr. J. Tatum, Project Manager, Project Directorate V). Revisions from the previous enclosure are identified by change bars in the margin.

If you have any questions, please contact me.

Very truly yours,

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cc: J. B. Martin, Regional Administrator, NRC Region V
C. Caldwell, NRC Senior Resident Inspector, San Onofre Units 1, 2 and 3

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STATUS OF IMPLEMENTATION OF UNRESOLVED SAFETY
ISSUE (USI) REQUIREMENTS
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 1

<u>USI/MPA Number</u>	<u>Title</u>	<u>Ref. Documents</u>	<u>Applicability</u>	<u>Status/Date*</u>	<u>Remarks</u>
A-1	Water Hammer	SECY 84-119 NUREG-0927, Rev. 1 NUREG-0993, Rev. 1 NUREG-0737, Item I.A.2.3 SRP revisions	All	C - 11/25/80	NRC SER dated 4/22/80 with additional information submitted by SCE letter dated 11/25/80. Modification to Auxiliary Feed-water System completed during Cycle 10 refueling outage incorporated design features to prevent water hammer. NRC SER issued April 25, 1989. NUREG-1190 (undated, received by SCE on 1/22/86) attributed 11/21/85 water hammer event primarily to check valve failures.
A-2/ MPA D-10	Asymmetric Blowdown Loads on Reactor Primary Cooling Systems	NUREG-0609 GL 84-04, GDC-4	PWR	N/C	Letter, C. M. Trammell to K. P. Baskin, "Elimination of Postulated Breaks in Primary Coolant Piping," 7/25/89.
A-3	Westinghouse Steam Generator Tube Integrity	NUREG-0844 SECY 86-97 SECY 88-272 GL 85-02 (No requirements)	W-PWR	N/C	Description of SCE's programs for assuring steam generator tube integrity submitted via SCE to NRC letter, "Steam Generator Tube Integrity Program," 6/26/85.
A-4	CE Steam Generator Tube Integrity	NUREG-0844, SECY 86-97 SECY 88-272 GL 85-02 (No requirements)	CE-PWR	N/A	
A-5	B&W Steam Generator Tube Integrity	NUREG-0844, SECY 86-97 SECY 88-272 GL 85-02 (No requirements)	B&W-PWR	N/A	
A-6	Mark I Containment Short-Term Program	NUREG-0408	Mark I-BWR	N/A	
A-7/D-01	Mark I Long-Term Program	NUREG-0661 NUREG-0661, Suppl. 1 GL 79-57	Mark I-BWR	N/A	
A-8	Mark II Containment Pool Dynamic Loads	NUREG-0808 NUREG-0487, Suppl. 1/2 NUREG-0802 SRP 6.2.1.1C GDC 16	Mark II-BWR	N/A	

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N/C - NO CHANGES NECESSARY
N/A - NOT APPLICABLE TO SONGS 1
I - INCOMPLETE
E - EVALUATING ACTIONS REQUIRED

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A-9	Anticipated Transients Without Scram	NUREG-0460, Vol. 4 10 CFR 50.62	All	I - 12/2/90 estimated	Final design and implementation of diverse turbine trip remain per SCE letter, "FTOL Open Items," 10/2/89.
A-10/ MPA B-25	BWR Feedwater Nozzle Cracking	NUREG-0619 Letter from DG Eisenhower dated 11/18/80 GL 81-11	BWR	N/A	
A-11	Reactor Vessel Material Toughness	NUREG-0744, Rev. 1 10 CFR 50.60 GL 82-26	All	N/C	No licensee response required per GL 82-26. Acceptability of SONGS 1 reactor vessel documented by the NRC in NUREG-0081 and NUREG-0569.
A-12	Fracture Toughness of Steam Generator and Reactor Coolant Pump Supports	NUREG-0577, Rev. 1 SRP Revision 5.3.4	PWR	N/A	No further licensee action required. As documented in NUREG-0577, Rev.1, NRC action was to issue new SRP which is applicable only to PWRs with construction permit issued after October, 1983.
A-17	Systems Interactions	Ltr: DeYoung to licensees - 9/72 NUREG-1174, NUREG-1229, NUREG/CR-3922, NUREG/ CR-1261, NUREG/CR-4470, GL 89-18 (No requirements)	All	N/C	No licensee actions required per GL 89-18.
A-24/ MPA B-60	Qualification of Class 1E Safety-Related Equipment	NUREG-0588, Rev. 1 SRP 3.11 10 CFR 50.49 GL 82-09, GL 84-24 GL 85-15	All	I - 12/2/90 estimated	NRC SER issued 3/11/85. The Environmental Qualification Master List was revised per SCE letter dated May 27, 1988 and NRC letter dated June 16, 1988. A 10 CFR 50.49(b)(2) evaluation was completed per SCE letter dated July 9, 1988 and NRC letter dated July 29, 1988. Upgrade of the environmental qualification of the Hot Leg Recirculation System is to be completed during the Cycle 11 refueling outage per SCE letters dated 9/5/89 and 10/2/89. The South Charging Pump Motor is also to be replaced during the Cycle 11 refueling outage.

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A-26/ MPA B-04	Reactor Vessel Pressure Transient Protection	DOR Letters to Licensees 8/76 NUREG-0224 NUREG-0371 SRP 5.2 GL 88-11	PWR	C - 5/23/88	This item considered completed by NRC issuance of Overpressure Mitigating Systems (OMS) License Amendment dated 5/23/88. However, subsequent to closure of this issue, deficiencies in the issued Technical Specifications were identified. An Amendment Application with revised Technical Specification OMS requirements is to be submitted by 1/31/90 per SCE letter dated 11/6/89 to correct these deficiencies. In the interim, administrative controls have been established to operate under more restrictive limits until the Technical Specification is revised. Technical Specification pressure-temperature limits were reviewed and found acceptable per GL 88-11 requirements via 12/16/88 SCE letter.
A-31	Residual Heat Removal	NUREG-0606 RG 1.113 RG 1.139 SRP 5.4.7	All Ols After 1/79	N/A	SONGS 1 is a Class 3 plant per SRP 5.4.7, Branch Technical Position RSB 5-1, that was licensed prior to 1/79.
A-36/ C-10, C-15	Control of Heavy Loads Near Spent Fuel	NUREG-0612 SRP 9.1.5 GL 81-07, GL 83-42, GL 85-11 Letter from DG Eisenhower dated 12/22/80	All	C - 11/4/85	Phase I implementation completed prior to NRC SER which was transmitted via letter dated 11/4/85. Implementation of voluntary Phase II modifications remain per 10/2/89 SCE letter.
A-39	Determination of SRV Pool Dynamic Loads and Pressure Transients	NUREG-0802 NUREGs-0763, 0783, 0802 NUREG-0661 SRP 6.2.1.1.C	BWR	N/A	
A-40	Seismic Design Criteria	SRP Revisions, NUREG/ CR-4776, NUREG/CR-0054, NUREG/CR-3480, NUREG/ CR-1582, NUREG/CR-1161, NUREG-1233, NUREG-4776 NUREG/CR-3805 NUREG/CR-5347 NUREG/CR-3509	All	N/A	Not applicable to SONGS 1. SONGS 1 seismic evaluation included in SEP and USI No. A-46 (Ref. NUREG-1233). NRC issued SER on SONGS 1 Long-Term Service Seismic Re-evaluation Program on 7/11/86.

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A-42/ MPA B-05	Pipe Cracks in Boiling Water Reactors	NUREG-0313, Rev. 1 NUREG-0313, Rev. 2 GL 81-03, GL 88-01	BWR	N/A	
A-43	Containment Emergency Sump Performance	NUREG-0510, NUREG-0869, Rev. 1 NUREG-0897, RG 1.82 (Rev. 0), SRP 6.2.2 GL 85-22 (No requirements)	All	N/C	No licensee action required. NRC revised RG 1.82, Rev. 0 and SRP 6.2.2 per NUREG-0897, Rev. 1.
A-44	Station Blackout	RG 1.155 NUREG-1032 NUREG-1109 10 CFR 50.63	All	I - 1/1/92 estimated	Approval of plan by NRC and implementation of procedures remain per 10 CFR 50.63 and 4/17/89 SCE letter.
A-45	Shutdown Decay Heat Removal Requirements	SECY 88-260 NUREG-1289 NUREG/CR-5230 SECY 88-260 (No requirements)	All	N/C	To be handled via Individual Plant Examination (IPE) Program per SECY 88-260. (SCE letter 11/3/89, "IPE for Severe Accident Vulnera- bilities, SONGS 1, 2 and 3.")
A-46	Seismic Qualification of Equipment in Operating Plants	NUREG-1030 NUREG-1211 GL 87-02, GL 87-03	All	I - 11/92 estimated	Perform plant walkdown by 11/92 per 10/2/89 and 10/7/88 SCE letters. SQUG Generic Implementation Procedure not yet issued.
A-47	Safety Implication of Control Systems	NUREG-1217, NUREG-1218 GL 89-19	All	E - 1/93 estimated	Implement Steam Generator Overfill Protection, if necessary, by 1/93 per 10/2/89 SCE letter. Status letter due 3/20/90 per GL 89-19.
A-48	Hydrogen Control Measures and Effects of Hydrogen Burns on Safety Equipment	10 CFR 50.44 SECY 89-122	All, except PWRs with large dry containments	N/A	Even though USI A-48 is not applicable to SONGS 1, hydrogen recombiners have been installed as part of TMI Action Plan Item No. II.E.4.1 per 11/2/82 NRC letter.
A-49	Pressurized Thermal Shock	RGs 1.154, 1.99 SECY 82-465 SECY 83-288 SECY 81-687 10 CFR 50.61 GL 88-11	PWR	C - 1/23/86	Completed per 1/23/86 SCE letter. As documented in 12/16/88 SCE letter, no changes required as a result of GL 88-11.

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