

MAY 5 1986

MEMORANDUM FOR: R. F. Fraley, Executive Director
Advisory Committee for Reactor Safeguards

FROM: Victor Stello, Jr.
Executive Director
for Operations

SUBJECT: ACRS REVIEW OF NRC ACTIONS RESULTING FROM THE SAN ONOFRE 1
NOVEMBER 21, 1985 EVENT

This memorandum is in response to your March 18, 1986 request for a meeting to review licensee and NRC actions in response to the November 21, 1985 water hammer event at San Onofre Nuclear Generating Station, Unit 1 (SONGS-1). The staff actions in support of this activity are well under way. A staff action plan which provides detailed review schedules and assignments has been developed and was provided informally to the ACRS staff in early March 1986. The staff has requested information from the licensee that is needed to evaluate the items in the staff action plan. The licensee responded to most of these items on April 8, 1986 with the submittal of a comprehensive Restart Report, copies of which have been transmitted to the ACRS. The staff review of this document is ongoing. The schedules in the staff's initial action plan have been modified to be consistent with the licensee's current schedule for restarting the facility in mid-June 1986. A current version of the staff action plan is provided in the enclosure.

I have authorized J. Martin, the Regional Administrator of Region V, to coordinate the staff's actions and to determine when the licensee may restart the facility. In support of this determination, a staff evaluation of the root cause of the check valve failures and the adequacy of proposed corrective actions will be provided to Region V in mid-May by the IE/Vendor Program Branch. The NRR Division of PWR Licensing-A will provide an evaluation to Region V by the end of May addressing the adequacy of many different design features at SONGS-1 related to the November 21, 1985 event. The issues to be covered by these evaluations are detailed in the enclosed staff action plan. Key to the restart decision is the licensee action being taken to verify the material condition of the plant. The licensee's actions and the staff's consideration and verification of those actions will likely continue until the scheduled restart date is approached.

Additionally, several of the licensee actions, such as modifications, procedure revision and training associated with the event, will continue during the period close to the scheduled restart date. The staff's

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R. F. Fraley

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examination and documentation of these areas will likewise continue during that period. Thus, the staff is planning to be available to meet with the ACRS as early as late July after all documentation related to San Onofre 1 has been completed and is available to the Committee. This schedule has been previously discussed with and accepted by your staff. Any changes to the licensee's restart schedule that require modification of the staff's review schedule may also affect the schedule for this meeting with ACRS. NRC staff personnel will continue to closely coordinate with ACRS staff in scheduling this meeting.

The staff's assessment of water hammer occurrences since 1980 and the generic implications regarding resolution of USI A-1 (water hammer) is scheduled to begin in May 1986 and to be completed in June 1986. These findings will be reviewed with ACRS in the upcoming meeting. A status report of other staff actions on possible generic activities resulting from the San Onofre event will also be provided to the ACRS in this meeting. These items include the generic implications of the check valve failures and associated inservice testing, the adequacy of NRC requirements for post-trip data retrieval equipment and an evaluation of NRC policy for use of the Emergency Notification System. The SONGS-1 restart schedule is not dependent upon resolution of these possible generic items.

Original signed by
Victor Stello

Victor Stello, Jr.
Executive Director
for Operations

Enclosure:
NRC Action Item List

See previous concurrence.*

Office:	LA/PAD#1	PM/PAD#1	PD/PAD#1	PWR-A	PWR-A	DSRO	Reg V
Surname:	PShuttleworth*	RDudley*/tg:jm	GLear*	ERossi*	TNovak*	TSpeis*	JMartin
Date:	04/14/86	04/22/86	04/23/86	04/23/86	04/23/86	04/23/86	04/28/86

per PJohnson
via telephone

Office:	IE	TOSB/NRR	DD/NRR	D/NRR	EDO
Surname:	RVollmer*	RHernan	DGEisenhut	HDenton	VStello
Date:	04/24/86	04/30/86	04/ /86	04/30/86	04/5/86

Distribution Copies:

Docket File 50-206

NRC PDR

Local PDR

MBridgers EDO#001551

EDO r/f

VStello

JRoe

JSniezek

JTaylor

JMartin, RV

CHeltemes

GCunningham

CFiles

HDenton/DEisenhut

GLear

RDudley

PShuttleworth

PBaker (2)

JMullin

PPAS

OELD

DMossburg/Toms (w/ticket & incoming)

GLainas

CRossi

DCrutchfield

PAD#1 Green Ticket file (w/incoming)

PAD#1 r/f

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Office:	IE	TOSB/NRR	DD/NRR	D/NRR	EDO
Surname:	RVollmer	RHernan	DGEisenhut	HDenton	VStello
Date:	04/24/86	04/ /86	04/ /86	04/ /86	04/ /86

*via telecon
E. Merschhoff
to R. Dudley*

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* *Minor changes.*

Victor Stello, Jr.
Executive Director
for Operations

Enclosure:
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See previous concurrence.*

Office: LA/PAD#1 PM/PAD#1 PD/PAD#1 PWR-A PWR-AW DSR01 Reg V
Surname: PShuttleworth* RDudley*/tg:jm GLear ERossi TNovak VSpeis JMartin
Date: 04/14/86 04/22/86 04/23/86 04/23/86 04/23/86 04/23/86 04/ /86

*via telecon
B. Shuman to R. Dudley
New A. Section*

Office:	IE	TOSB/NRR	DD/NRR	D/NRR	EDO
Surname:	RVollmer	RHernan	DGEisenhut	HDenton	VStello
Date:	04/ /86	04/ /86	04/ /86	04/ /86	04/ /86

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A status report of NRC staff actions on possible generic activities resulting from the November 21, 1985 San Onofre event will also be provided to the ACRS in the upcoming meeting.

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Executive Director
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Date:	04/14/86	04/ /86	04/ /86	04/ /86	04/ /86	04/ /86	04/ /86

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* *Additions*

Victor Stello, Jr.
Executive Director
for Operations

Enclosure:
NRC Action Item List

See previous concurrence.* *PD*

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Date:	04/ /86	04/ /86	04/ /86	04/ /86			

II. NRC ACTION ITEM LIST (IIT SONGS-1)

<u>Item Description</u>	<u>Required for Startup</u>	<u>Source</u>	<u>Resp. Office</u>	<u>Due Date (SCE Item No.)</u>	<u>Status/ Completion Date</u>
1. Implement and coordinate the staff and industry actions necessary to assure the reliability of safety-related check valves. Areas to be evaluated include:		Stello memo 2/4/86 Enclosure Item 1	IE/VPB	5/27/86*	In progress
a. Adequacy of licensee's report on root cause analysis and proposed corrective actions.	Yes	Stello memo 2/4/86 Enclosure Item 1	IE/VPB (lead) and NRR/PWR-A	5/9/86	Evaluating licensee submittals of 3/2/86 and 4/8/86
<p>Note: The hydrodynamic aspects of the design differences between the failed and replacement check valves will be reviewed by IE and factored into the overall feedwater system design review in item 3.b. The overall feedwater system design review is listed separately to highlight the importance of this review and to allow listing all NRR design change reviews in one location.</p>					
b. Adequacy of check valve design for SONGS 1 application at time of November 21 event.	Yes	IIT ¶3.3(Pg.3-6) Stello memo 2/4/86 Encl.Item 1	IE/VPB (lead) RV NRR/DSRO & PWR-A	5/9/86 (34, 67)	In progress Site visit complete 3/86

*The SONGS-1 plant specific issues will be completed and a plan to address the generic aspects will be developed by this date.

II. NRC ACTION ITEM LIST (IIT SONGS 1)

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Note: A review of the design changes to the feedwater system is covered in item 3.b. The results of this evaluation will be considered as appropriate.					
1.b 1) Determine which valves are only partially open during nominal operating conditions.		RV	IE&RV/SONGS Residents	4/8/86	In progress IE Site visit 3/86 Report in preparation 4/15/86
2) Review existing inspection or test results.		RV	IE&RV/SONGS Residents	4/8/86	In progress IE Site visit 3/86 Report in preparation 4/15/86
3) Review existing maintenance histories.		RV	IE&RV/SONGS Residents	4/8/86	In progress IE Site visit 3/86. Report in preparation 4/15/86
4) Observe disassembly and perform visual inspection of selected check valves based on the results of the above reviews.		RV	IE&RV/SONGS Residents	4/8/86	In progress IE Site visit 3/86 Report in preparation 4/15/86
1.c Generic evaluation of adequacy of check valve designs for this application. (other systems are addressed separately)	No	IE/NRR and Chilk's memo 2/7/86	IE/VPB	5/27/86*	In progress

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1.c. 1) Perform vendor inspections.		IE	IE		
a) Anchor Darling				1/06/86	Completed on schedule
b) Atwood Morrill				2/10/86	Completed on schedule
c) MCC Pacific				2/10/86	Completed on schedule
d) Crane				3/3/86	Completed on schedule
e) Velan				3/24/86	Completed on schedule
2) Review failure data and failure modes.		IE	IE	4/30/86	In progress
a) LERs, 50.55(e), P21, PNO					
b) NPRDS					
c) Vendor Supplied					
d) Licensee Supplied					
3) Review check valve experience at sites.		IE	IE	4/22/86	
- Hope Creek				2/06/86	Completed on schedule
- Millstone				2/10-14/86	Completed on schedule
- North Anna				2/10-14/86	Completed on schedule
- Limerick				3/24-25/86	Completed on schedule
- Peach Bottom				3/25-26/86	Completed on schedule
4) Review comments and intended actions of Owners' Groups meetings.		IE	IE	5/15/86	Meeting held 4/7/86 (IE/EDO w/Owners Groups)

II. NRC ACTION ITEM LIST (IIT SONGS 1)

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5) Determine adequacy of check valve design for this application using input from C.1 to C.4 above.		IE	IE	5/27/86*	Pending completion of above
1.d. Adequacy of Inservice Testing (IST) Program and procedures to detect degraded and failed valves.		IIT ¶6.7 (pg.6-14) and Stello memo 2/4/86 Encl. Item 1	IE/VPB (lead) NRR/DSRO PWR-A/EB	5/27/86	In progress
1) a. NRR review of SONGS 1 IST program docketed prior to the event.	TBD	NRR	NRR/DSRO and PWR-A	TBD (17, 54, 58, 72)	In progress Draft evaluation completed 3/1/86
b. NRR review of SCE's 3/3/86 revision of IST program.	TBD	NRR	PWR-A/EB	TBD	Ongoing
2) Evaluate Adequacy of IST Programs (Generic)	No	IE	IE	5/27/86*	
a) Visit Plants					
- Millstone				2/10-14/86	Completed on schedule
- North Anna				2/10-14/86	Completed on schedule
b) Review a sample of 16 IST programs			IE	4/30/86	In progress

*The SONGS-1 plant specific issues will be completed and a plan to address the generic aspects will be developed by this date.

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c) Review comments from Owners' Groups.			IE	5/15/86	Meeting w/owners group held 4/7/86
d) Based on a), b) and c) above, make recommendations on portions of Generic issue II.E.6.1 which should be accelerated or any more immediate licensee actions that should be considered.			IE/VPB and NRR/DSRO	5/27/86*	Pending completion of above
3) Evaluate adequacy of existing implementation of IST program for SONGS 1. (Including check valves and other valves). (Including the following considerations: test frequency; acceptance criteria; need for periodic disassembly/ inspection and QA involvement)	Yes	IE	IE/RV	4/25/86 (17, 53, 54)	IE Inspection conducted 3/86. Report in preparation 4/15/86
4) NRR review of SONGS 1 IST program requirements in light of November 21, 1985 event.	Yes	NRR	NRR/DSRO PWR-A/EB IE/VPB	5/9/86 (17, 54, 58, 72)	Licensee's submittal received 4/8/86
1.e. Evaluation of check valves (and related testing programs) for other safety-related systems, such as RHR system.		Stello memo 2/4/86 Encl.Item 1	IE/VPB (lead) NRR/PWR-A RV	5/28/86 (67)	In progress

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1) Evaluate SONGS 1 check valves in non feedwater system application as per sub-items listed in 1b.	Yes	RV	IE&RV/SONGS Residents	4/29/86	IE inspection conducted 3/86. Report in preparation 4/18/86
2) Generic adequacy of check valves (and related testing programs) in other safety-related systems as per sub-items listed under item 1b including review of check valve data.	No	IE/NRR	IE/VPB (lead) NRR/DSRO	5/28/86*	In progress
1.f Evaluate check valve maintenance program implementation for SONGS-1:	Yes	IIT ¶6.5 (pg. 6-12)	IE&RV/SONGS Residents	4/30/86 (53, 67)	IE Inspection conducted 3/86. Report in preparation 4/15/86
1) Review adequacy of valve preventive maintenance (PM) program.		RV			
2) Evaluate the adequacy of licensee trending of IST and maintenance results.		RV			
3) Evaluate the adequacy of QA involvement in PM program.		RV			
g. Evaluate check valve maintenance programs generically.		RV	IE/NRR-DHFS	5/28/86*	IE Inspection conducted 3/86. Report in preparation 4/15/86

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2. Assess the need to reevaluate USI A-1 to specifically address the potential for and prevention of condensation induced water hammers in feedwater piping (assume the issue concerning check valve integrity will be resolved in item 1).	No	IIT ¶6.3 (pg. 6-7,8&9) and Stello memo 2/4/86 Encl.Item 2 and Chilk's memo 2/7/86	NRR/DSRO	6/30/86 (29, 57)	A review of post-1980 water hammer events will be performed.
3. Adequacy of SONGS-1 Design Features (other than specific check valve design)	Yes	Stello memo 2/4/86 Encl.Item 3	NRR/PWR-A	5/28/86	
a. Implement and coordinate the staff's actions to reevaluate the following San Onofre design features:		Stello memo 2/4/86 Encl.Item 3	NRR/PWRA	5/9/86	
1) Lack of automatic loading of the diesel generators following a loss of power event.		IIT ¶4.14 (Pg. 4-16) and Chilk's memo 2/7/86	PWR-A/ EICSB	5/9/86 (15)	Licensee's submittals of 3/2/86 and 4/8/86 under review
2) Lack of remote control of steam line isolation valves and resultant impact on assurance of steam generator availability to remove decay heat (in event of steamline or feedline break).		IIT ¶3.5 (pg. 3-9) and ¶4.2 (pg. 4-1) & Commission Brief 3/18/86	PWR-A/ PSB and RSB	5/9/86 (16, 86)	Licensee's submittal of 4/8/86 under review
3) Lack of steam generator blowdown status in control room or auto termination capability		IIT ¶3.7 (pg. 3-10&11), ¶7.2.2.1 (pg. 7-9), and ¶8.7 (pg. 8-3)	PWR-A/ PSB	5/9/86 (7, 26, 27, 74)	Licensee's submittal of 4/8/86 under review

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3.a. 4) Adequacy of the licensee's design change to eliminate spurious SI indication on loss of power (SI annunciator and SIS sequencer surveillance panel)		Stello memo 2/4/86 Encl.Item 3	PWR-A/ EICSB	5/9/86 (4, 5, 75)	Licensee's submittal of 4/8/86 under review
5) Non-safety related auto sequencer (reliability and impact on station blackout).		IIT ¶3.4 (pg. 3-6), ¶7.2.1.4 (pg. 7-5), & ¶4.12.2.1 (pg. 4-11)	PWR-A/ EICSB	5/9/86 (2, 87)	Licensee's submittal of 4/8/86 under review
6) Impact of interlock between reactor bypass breaker and diesel generator output breaker on electrical power reliability.		IIT ¶4.12.3 (pg. 4-13)	PWR-A/ EICSB	5/9/86 (13)	Licensee's submittal of 4/8/86 under review
7) Adequacy of labeling for selected control room indicators.		IIT ¶4.16.3.1 (pg. 4-20) ¶7.2.1.2 (pg. 7-4)	PWR-A/ EICSB	5/9/86 (19, 31)	Licensee's submittal of 4/8/86 under review
8) Reliability of power to vital buses, e.g., power to important control room indications and controls.		IIT ¶3.4 (pg. 3-6), ¶4.12.1 (pg.4-9), ¶4.12.4 (pg.4-13), ¶4.12.5 (pg.4-14), ¶4.17 (pg.4-21 thru 24)	PWR-A/ EICSB	5/9/86 (10, 79, 80)	Licensee's submittal of 4/8/86 under review
9) Increased reliability of 4KV power supplies (Includes evaluation of cause of failure of C transformer power cable).		IIT ¶3.2 (pg. 3-2), ¶4.12.3 (pg. 4-11), ¶4.13 (pg.4-15), ¶4.14 (pg.4-16), ¶7.2.1.5 (pg.7-6), ¶8.1 (pg.8-1)	PWR-A/ EICSB	5/9/86 (1, 3)	Licensee's submittal of 4/8/86 under review

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a) Cable reliability.				(77)	
b) Alternate immediate source of offsite power (e.g., additional reserve transformer).				(84)	
3.b Evaluate adequacy of SONGS-1 feedwater system design		IIT ¶6.3.2 (pg. 6-9)	NRR PWR-A/PSB	5/9/86 (29, 30)	Licensee's submittal of 4/8/86 under review
1) Water hammer design considerations/engineering.		NRR	PWR-A/EB		Licensee's submittal of 4/8/86 under review
2) Water hammer design considerations/systems aspects. Includes review of licensee's test program to assure that water hammers do not occur in feedring or other parts of system.		NRR	PWR-A/PSB		Licensee's submittal of 4/8/86 under review
3) Possible instrumentation to indicate impending water hammer conditions.		NRR	PWR/EICSB	(57)	Licensee's submittal of 4/8/86 under review
4) Adequacy of feedwater repair/system integrity and material considerations.		NRR	PWR-A/EB	(33, 69-73 82)	Licensee's submittal of 4/8/86 under review
c. Review and inspect selected design changes.	Yes	RV	RV/SONGS Residents	5/28/86	In progress
1) Steam generator blowdown status indication or automatic termination.		IIT ¶3.7 (Pgs. 3-10&11) ¶7.2.2.1 (Pgs. 7-9), and ¶8.7 (Pg. 8-3)		(26, 27, 74)	Modification in progress

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3.c. 2) Modifications to eliminate spurious SI indications.	licensee commitment	IIT ¶17.2.1.3 (Pg. 7-4)		(4, 5, 75)	Modification in progress
3) Improved labeling for selected control room indicators.		IIT ¶4.16.3.1 (Pg. 4-20) and ¶7.2.1.2 (Pg. 7-4)		(19, 31)	No modification planned for RTS
4) Continuity of power to event computer and vital buses.		IIT ¶4.17 (Pgs. 4-21 thru 24) ¶3.4 (Pg. 3-6), ¶4.12.5 (Pg. 4-14), ¶4.12.1 (Pg. 4-9), ¶4.12.4 (Pg. 4-13)		(10, 79, 80)	No modification planned for RTS
5) Increased reliability of 4KV power supplies.		IIT ¶8.1 (Pg. 8-1), ¶4.12.3 (Pg. 4-11), ¶3.2 (Pg. 3-2), ¶4.13 (Pg. 4-15), ¶4.14 (Pg. 4-16), ¶7.2.1.5 (Pg. 7-6)		(1, 3)	
a. Auto loading of diesel generators.				(15)	No modification planned
b. Loss of voltage automatic sequencer.				(87)	Modification in progress
c. Reactor bypass/diesel generator output breaker interlock.	licensee commitment			(13)	Modification in progress
d. Environmental protection for 4KV cables.	licensee commitment			(77)	Modification in progress
e. Alternate 4KV power source.				(84)	No modification planned for RTS

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6) UPS and automatic reset for TSC computer.		IIT ¶7.2.2.4 (pg. 7-10)		(85)	No modification planned for RTS
7) Feed line void detectors.		RV		(57)	No modif. planned
3.c. 8) Modifications and repairs to feedwater system including independent NDE.		RV		(33, 69-71, 73, 82)	Modif. & repairs in progress. NRC NDE exam. completed 4/11 Report in preparation
4. Abnormal Condition and Post-trip Review Concerns.					
a. Evaluate generic NRC requirements for ensuring that sufficient event data are retrievable to accurately reconstruct event following a loss of offsite power.	No	IIT ¶7.2.2.4 (Pg. 7-10) & Stello memo 2/4/86 Encl.Item 4	NRR EICSB/PWR-A	5/28/86	Ongoing
b. Evaluate the licensee's process for abnormal condition and post-trip review, including involvement of:	Yes	IIT ¶7.2.2.4 (Pg. 7-10)	RV/SONGS Residents	5/28/86 (63)	Licensee's submittal received 4/8/86 Inspection scheduled for 5/5/86
1) Onsite Review Committee (e.g., noise evaluations in feed line B prior to event). Include addition of "expert" to OSRG.		IIT ¶6.6 (pg. 6-12) & Commission brief 3/18/86		(61)	
2) Offsite Review Committee.		IIT ¶6.6 (pgs. 6-12&13)			
3) Quality Assurance.		RV			
c. Evaluate adequacy and reliability of post-trip data retrieval equipment.	Yes	IIT ¶7.2.2.4 (pg. 7-10) & Stello memo 2/4/86 Encl.Item 4	NRR/PWR-A/ EICSB	5/28/86 (11)	Licensee's submittal of 4/8/86 under review

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4.c. 1) Critical Function Monitor not reset after troubleshooting.		IIT ¶7.2.2.4 (Pg. 7-10)		(11)	
2) Continuity of power to event computer.		IIT ¶4.17.3 (pg. 4-23)		(85)	
5. Evaluate the overall adequacy of SONGS 1 maintenance records.	Yes	IIT ¶6.5 (pg. 6-12) & Stello memo 2/4/86 Encl. Item 5	RV/SONGS Residents	5/28/86 (53)	Licensee's submittal received 4/8/86 Inspection scheduled 5/86
a. Completeness and Retrievability of records. Include evaluation of cancelled work orders on check valves per IIT Report 6.5.		RV			
b. QA overview.		RV			
c. Trending		RV			
6. Adequacy of Procedures					
a. Verify licensee actions to correct the following identified deficiencies with site procedures.	Yes		RV/SONGS Residents	5/28/86	Licensee's submittal received 4/8/86
1) Lack of adequate precaution's on length of time diesel generators can operate unloaded without AC power to radiator fans was improperly deleted from procedure.		IIT ¶7.2.1.5 (pg. 7-6)		(41)	Inspection scheduled 5/86

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6.a 2) Lack of provisions for recognizing and preventing conditions which allow the initiation of water hammers.		IIT ¶6.1 (pg. 6-2,3&4)		(57, 64)	Inspection scheduled 5/86
3) Inadequate instructions for manually bringing power onto dead buses and for responding to malfunction of the loss of ac power automatic sequencer.		IIT ¶3.4 (pg. 3-6), ¶7.2.1.4 (pg. 7-5), ¶4.12.2.1 (pg. 4-11)		(40)	Inspection scheduled 5/86
4) Inadequate instructions for trouble shooting of 4KV bus grounds.		IIT ¶8.1 (pg.8-1), ¶4.12.3 (pg.4-11), ¶3.2 (pg.3-2), ¶4.13 (pg.4-15), ¶4.14 (pg.4-16), ¶7.2.1.5 (pg. 7-6)		(37, 55)	Inspection scheduled 5/86
5) Lack of provisions for identifying alternate methods of verifying SI actuation.		IIT ¶7.2.1.3 (pg. 7-4)		(39)	Inspection scheduled 5/86
6) Need for revision to AFW system flow control procedures to factor in effect of flow on reactor coolant system temperature.		IIT ¶6.1 (pg. 6-3)		(24, 42, 44)	Inspection scheduled 5/86
7) Procedure for going onto RHR cooling implied clearing of isolation valve interlock at 400 vice 370 psig (Also training guide #22).		IIT ¶8.8 (pg. 8-3), ¶3.8 (pg. 3-12&13), ¶4.10 (pg.4-8), ¶7.2.1.8 (pg.7-8)		(9)	Inspection scheduled 5/86

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6.a 8) Need for administrative time limit on loading diesel generators following loss of station power.				(15)	Inspection scheduled 5/86
b. Assess appropriateness of paralleling buses with indicated ground fault.	Yes	IIT ¶3.2 (pg. 3-2), ¶5.1 (pg. 5-1) ¶7.2.1.1 (pg. 7-1)	NRR/ PWR-A/ EICSB	4/30/86 (18)	Licensee's submittal received 4/8/86. Provided RV a teleco assessment on 4/14/86
c. Evaluate overall program for developments of procedures in light of the above inadequacies.	Yes	Stello memo 2/4/86 Encl.Item 6	RV/SONGS Residents	5/28/86 (36)	Licensee's submittal of 4/8/86 under review
7. Adequacy of training.	Yes	Stello memo 2/4/86 Encl.Item 6	RV/SONGS Residents	5/28/86 (45)	Licensee's submittal of 4/8/86 under review
a. Verify the adequacy of operator training in the following areas:	Yes		Reactor Safety Branch	5/28/86	Licensee's submittal of 4/8/86 under review Inspection scheduled 5/19/86
1) Troubleshooting and isolating grounds including bus and transformer grounds.		IIT ¶7.2.1.1 (pg. 7-1 thru 4)		(49)	
2) Transfer of loads between 4KV buses.		IIT ¶7.2.1.1 (pg. 7-1)		(51)	" "
3) Operator response to loss of offsite electrical power.		IIT ¶7.2.1.2 (pg. 7-4)		(46, 48, 52)	" "

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7.a 4) Resetting Unit Trip to allow reenergization of onsite electrical buses.		IIT ¶7.2.1.4 (pg. 7-5)		(3, 52)	Inspection scheduled 5/19/86
5) Controlling SG Blowdown		IIT ¶3.7 (pg. 3-10&11)		(47)	Inspection scheduled 5/19/86
6) SLSS sequencer panel indications		IIT ¶4.13 (pg. 4-15&16)		(50)	Inspection scheduled 5/19/86
7) Not notifying NRC that a UE had been declared.		IIT ¶7.2.2.2 (pg. 7-9), & ¶7.3.2 (pg. 7-15)		(38, 60)	Inspection scheduled 5/19/86
b. Evaluate implementation of technical specification action statements when warranted, e.g., reluctance to fully isolate failed tranformer and removal from service of one feedwater pump.	Yes	IIT ¶3.2 (Pg. 3-2)	RV and PWR-A/FOB	5/28/86 (56)	Licensee's submittal of 4/8/86 under review
c. Assess operators training and knowledge in the use of prints and drawings.	Yes	Commission brief 3/18/86	Reactor Safety Branch	5/13/86	Inspection scheduled 5/19/86
d. Assess appropriateness of mix of training for normal operation thru major accidents	Yes	Commission brief 3/18/86	Reactor Safety Branch	5/13/86	Inspection schedule 5/19/86
8. Emergency Notification		Stello memo 2/4/86 Encl.Item 7	IE/DEPER (lead) RV	5/28/86	Licensee's submittal received 4/8/86 RV inspected 3/14/86. Report in preparation 4/16/86.

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a. Verify the adequacy of the licensee's procedures and training for reporting of events to NRC Operations Center. (See item 7.a.7 above)	Yes	IIT ¶7.2.2.2 (pg. 7-9) & Stello memo 2/4/86 Encl. Item 7	RV/ Emergency Preparedness Section (lead) IE/DEPER	5/14/86 (38, 60)	Licensee's submittal received 4/8/86 RV inspection completed 3/14. Report in preparation 4/16/86.
b. Evaluate NRC policy for allowable uses of the ENS.	No	IIT ¶7.3.1 (pg. 7-11&14)	IE/DEPER	4/30/86	In progress
1) Use of NRC personnel as ENS communicators		IIT ¶7.3.1.5 (pg. 7-14)			
2) Actions to improve NRC determination of overall plant status during events.		IIT ¶7.3.1 (pg. 7-11 thru 14), ¶7.3.2 (pg. 7-15)			
3) Site specific training of headquarters duty officers.		IIT ¶7.3.1.2 (pg. 7-12)			
4) Licensee responsibility to provide communicator when requested.		IIT ¶7.3.1.4 (pg. 7-14)		(38)	
5) Qualifications of licensee communicator.		IIT ¶7.3.1.2 (pg. 7-12), ¶7.3.1.5 (pg. 7-14)		(38)	
c. Evaluate spurious ringing of ENS phones during event.	Yes	IIT ¶8.10 (pg. 8-4)	RV/EP Section (lead) IE/DEPER	5/14/86 (12)	Licensee's submittal received 4/8/86 RV inspection completed 3/14. Report in preparation 4/16/86.

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d. Evaluate the adequacy of licensee procedures and training for notifying on-shift personnel of an emergency event.	Yes	IIT ¶7.2.2.1 (pg. 7-8)	IE/DEPER RV/EP Section (lead)	5/14/86 (60)	Licensee's submittal due 4/8/86 Inspection completed 3/14. Report in preparation 4/16/86
9. Evaluate whether a backlog of license amendments and technical specification changes contributed to delays in approving the licensee's IST program.	Yes	IIT ¶6.4 (pg. 6-10) & Stello memo 2/4/86 Encl. Item 8	NRR/ PAD-1 (lead), PWR-A and DSRO	5/1/86	In progress
10. Evaluate effect of long outage period on plant components. (closely tied to item 11, below)		Chilk's 2/7/86 ¶5 Commissioner Bernthal	RV (lead) IE NRR	3/10/86 (62)	Licensee's submittal 3/2/86. Completed Stello Ltr. to Commissioners 4/7.
11. Perform a comprehensive evaluation of licensee actions to implement an integrated program for review and upgrading of overall plant material condition prior to restart of SONGS.	Yes	RV	RV/SONGS Residents	5/28/86 (66)	In progress. Includes LLNL contract effort with NDE Van.
a. Review existing maintenance and test data for key safety-related systems and systems that are important to on-line plant reliability.		RV			
b. Review the overall backlog of maintenance orders not completed prior to restart.		RV			

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11. c. Review the licensee program for operational readiness testing of key safety-related systems and systems that are important to on-line plant reliability.		RV			
d. Perform a comprehensive walkdown of key safety-related systems and systems that are important to on-line plant reliability.		RV			
e. Review licensee implementation of Area Management Program (AMP).		RV			
f. Perform independent measurements to confirm plant material condition (NDE Van). Include measurements of steam and feedwater system wall thickness to detect erosion of pipe wall.		RV			Inspection completed 4/11/86. Report in preparation.
12. Evaluate the licensees effort to assure that the steam generators low-levels did not damage or leave damaging chemical materials in the steam generators.		NRR	PWR-AEB	5/9/86	Awaiting licensee response due 4/30/86
13. Assess failures on automated security system.		IIT 18.11 (pg. 8-4)	RV	3/11/86	Closed Inspection Report 50-206/86-03 on schedule
14. Propose improvements to Technical Specifications based on review.		RV	RV NRR	5/12/86	RV input to NRR completed 3/7/86.

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15. Assess licensee's program and efforts to learn lessons from other plants (conventional) within their systems, and other nuclear plants (e.g., Conn Yankee and Japanese plants)		Commission Brief 3/18/86	RV/SONGS Residents	5/30/86	Licensee's input due 5/15/86