



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BLVD
ARLINGTON, TEXAS 76011-4511

September 4, 2012

MEMORANDRUM TO: Ho K. Nieh, Director
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Kriss M. Kennedy, Director /RA/
Division of Reactor Projects

SUBJECT: NRC OVERSIGHT OF SAN ONOFRE NUCLEAR GENERATING
STATION (SONGS) UNITS 2 AND 3 DURING
EXTENDED SHUTDOWN

The purpose of this memorandum is to document your concurrence with the decision to transition regulatory oversight for SONGS Units 2 and 3 to Inspection Manual Chapter 0351, "Implementation of the Reactor Oversight Process at Reactor Facilities in an Extended Shutdown Condition for Reasons Other Than Significant Performance Problems." SONGS Units 2 and 3 have been shutdown since January 2012 due to unexpected degradation in the replacement steam generators. The licensee has been performing an extensive evaluation of the unusual steam generator tube wear, utilizing industry and vendor experts, but has not yet completed the required steam generator operational assessments. NRC Region IV issued a Confirmatory Action Letter (CAL) on March 27, 2012, confirming specific actions committed by the licensee prior to restart of either unit. NRC Region IV conducted an Augmented Inspection Team (AIT) inspection with a public exit meeting on June 18, 2012, and is conducting the AIT follow up inspection the week of August 20, 2012.

To implement the Reactor Oversight Process (ROP) at San Onofre Units 2 and 3, Region IV intends to implement IMC 0351. Region IV considered the guidance listed in IMC 0351 and determined that: 1) Units 2 and 3 are in an extended shutdown which exceeded 6 months in July 2012. 2) Although the licensee has conducted extensive evaluations to address the cause of the steam generator tube degradation, those evaluations are continuing and corrective actions are still being developed. 3) SONGS is in the extended shutdown solely due to this single, complicated technical issue, and not due to widespread performance issues. Therefore, the application of Inspection Manual Chapter 0350, "Oversight of Reactor Facilities in a Shutdown Condition due to Significant Performance and/or Operational Concerns" is not appropriate at this time. Region IV has prepared the enclosed inspection plan in accordance with IMC 0351 which describes the planned inspections during the extended shutdown. IMC 0351, Section 04.03 states the Director, Division of Inspection and Regional Support (DIRS), is required to concur with the regional decision to implement this manual chapter and any associated inspection plan. During your phone call on September 4, 2012, you expressed your concurrence with the decision and with the attached inspection.

Region IV hereby requests your concurrence. The inspection plan addresses accomplishment of the Reactor Oversight Process Baseline inspection procedures and includes observations of outage activities. Inspections will verify acceptable performance of major testing activities associated with restart of either unit. The inspection plan describes the current status of performance indicators and inspections planned to address invalid performance indicators. As plant repairs and testing near completion, the inspection plan will be amended to focus on readiness for restart. Some elements of this inspection plan will be augmented by CAL completion inspections as the licensee approaches restart of either unit.

INSPECTION PLAN1. BASELINE INSPECTIONS

- a. The following resident inspector baseline inspection procedures (IP) are expected to be completed with at least the minimum number of samples as specified in the respective IP.

IP Number	Title/Section	Comments
71111.01	Adverse Weather Protection	
71111.04Q	Equipment Alignment/Partial	
71111.04S	Equipment Alignment/Complete	
71111.05AQ	Fire Protection/Annual/Quarterly	
71111.06	Flood Protection Measures	
71111.07A	Heat Sink Performance	
71111.11Q	Licensed Operator Requalification	
71111.12	Maintenance Effectiveness	
71111.19	Post Maintenance Testing	
71111.20	Refueling and Outage Activities	
71111.22	Surveillance Testing	
71114.06	Drill Evaluation	
71153	Event Follow-up & Notices of Enforcement Disc.	

- b. The available inspection samples for the following Resident Inspector Baseline IPs will be performed, however, the number of available samples may be below the minimum specified for the baseline:

IP Number	Title/Section	Comments
71111.13	Maintenance Risk Assessment & Emergent Work Control	IP is not applicable with the unit shutdown. Maintenance Risk assessment is performed under IP 71111.20
71111.15	Operability Determination and Functionality Assessments	Due to the extended shutdown period, availability of samples is limited
71111.18	Plant Modifications	Due to the extended shutdown period, availability of samples may be limited.
71151	Performance Indicator (PI) Verification	Reference PI section
71152	Problem Identification and Resolution (PI&R)	The required annual sample for Operator Work Arounds (OWAs) will not be completed during the extended shutdown period if the core is offloaded to the spent fuel pool (SFP) since OWAs are no longer applicable.

c. DIVISION OF REACTOR SAFETY BASELINE and OTHER TEAM INSPECTIONS

IP Number	Title/Section	Comments
71111.05T	Triennial Fire Protection	Complete as specified by IP (scheduled for October 2013)
71111.08	In-Service Inspection	Adjust level of effort based on plant conditions (tentative schedule in October 2013)
71111.17T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	Periodicity and scope left to Regional Discretion. (Scheduled in CY14)
71111.21	Component Design Basis Inspection	Complete as specified by IP (Scheduled in CY14)
71114.0X	Exercise Eval/Emergency Action Level (EAL) and Emergency Preparedness (EP) changes	Complete as specified by IP (Biennial exercise scheduled for May 2013)
71124.0X	Radiation Safety	(.02 and .04 scheduled for July 2013,

IP Number	Title/Section	Comments
		.01 and .03 scheduled for October 2013) (.05. .06. .07. 08 completed in July 2012)
71130.0X	Security Baseline Inspection	Complete as specified by IP (Schedule TBD)
71152B	Problem Identification and Resolution, Biennial Inspection	Recently completed, not scheduled before end of CY2013

d. ADDITIONAL TARGETED INSPECTIONS TO BE COMPLETED UNDER THE ABOVE ROP PROCEDURES:

IP Number	System/Area	Comments
71111.11	Operations Training	Additional inspection sample to verify operator readiness for restart (within ~1 month of unit startup)

2. PERFORMANCE INDICATORS (PIs)

Due to the extended shutdown, several PIs are no longer valid. The table below lists invalid PIs and describes those ROP inspections necessary to compensate for PIs which are no longer valid.

Performance Indicator	ROP inspections planned during Extended Shutdown	Comments
Unplanned Scrams [IE01], Unplanned Power Changes [IE03], and Unplanned Scrams with Complications [IE04]	None	PIs are not valid. Unplanned Scrams and Unplanned Power Changes PIs will be valid after the unit is critical for 2400 hrs. Unplanned Scrams with Complications PI will become valid after unit startup
Reactor Coolant System Activity [BI01] and Reactor Coolant System leakage [BI02]	None	PIs are not valid. RCS Leakage will become valid in Mode 4, RCS activity PI will become valid in Mode 3 (>350F)

Safety System Functional Failures [MS05]	Routine resident inspections	PI remains valid
Mitigating Systems Performance Index (MSPI) Emergency Alternating Current (Emergency Diesel Generator) [MS06]	(Notes 2 and 3). Baseline Inspection	This PI was last reviewed during the 2 nd Quarter 2012 for all previously submitted unreviewed data. The PI is no longer valid due to the extended shutdown (Note 1).
MSPI HP Safety Injection (HPSI) [MS07]	(Notes 2 and 3). Baseline Inspection	This PI was last reviewed during the 2 nd Quarter 2012 for all previously submitted unreviewed data. The PI no longer valid due to the extended shutdown (Note 1).
MSPI Heat Removal (AFW) [MS08]	(Notes 2 and 3). Baseline Inspection	This PI was last reviewed during the 2 nd Quarter 2012 for all previously submitted unreviewed data. The PI is no longer valid due to the extended shutdown (Note 1).
MSPI Residual Heat Removal (SDC) [MS09]	Baseline Inspection (Notes 2 and 3).	The PI is no longer valid due to the extended shutdown (Note 1).
MSPI Cooling Water (SWC and CCW) [MS10]	Baseline Inspection (Notes 2 and 3).	The PI is no longer valid due to the extended shutdown (Note 1).
PIs associated with Emergency Planning [EP01/EP02/EP03], Radiation Protection [OR01/PR01] and Security [PP01]	Routine DRS inspections.	PIs remain valid

Note 1: MSPIs consist of the sum of the unavailability of the applicable systems plus the unreliability for the system during the previous twelve quarters. Unavailability is only counted if the reactor is critical. Based on the lack of critical hours since January 2012, the MSPIs are invalid. MSPI inspections specified in IP 71151 will not be performed until after unit startup.

Note 2: The emergency AC system (EDG), RHR (SDC) system, and the cooling water systems (SWC/CCW) will continue to be routinely surveillance tested (in-service testing) by the licensee. For these systems there continues to be an opportunity to identify Mitigating Systems (MS) functional failures and other system problems. To provide confidence the licensee is properly maintaining these systems, the resident inspectors will continue to perform baseline ROP inspections (PMT, Surveillance, Mods, operability etc) for these systems. The HPSI and AFW systems have NOT been routinely operated or surveillance tested during the extended outage. If opportunities arise, the residents will perform baseline inspections for the HPSI and AFW systems.

Note 3: After unit restart, data submitted by the licensee will be reviewed utilizing IP 71151 on at least an annual basis. Additional inspections will be performed to compensate for invalid PIs until sufficient data has accumulated to provide for each valid PI.

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