



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 E. LAMAR BLVD
ARLINGTON TX 76011-4511**

October 5, 2015

Mr. Thomas J. Palmisano
Vice President and Chief Nuclear Officer
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92674-0128

**SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION – NRC INSPECTION
REPORT 050-00361/2015-010; 050-00362/2015-010**

Dear Mr. Palmisano:

This refers to inspections conducted from August 20 through October 25, 2013, and August 24 through August 26, 2015, at your permanently shut down San Onofre Nuclear Generating Station facility, Units 2 and 3. The purpose of the inspections was to determine whether emergency preparedness capabilities were being maintained in accordance with U.S. Nuclear Regulatory Commission (NRC) requirements. The inspections included independent reviews of the adequacy of emergency preparedness exercise scenarios, observation of the performance of the emergency response organization during two biennial exercises, independent evaluation of performance weaknesses occurring during two biennial exercises, evaluation of the thoroughness of the post-exercise critiques of exercise performance conducted by San Onofre Nuclear Generating Station staff, and an onsite review of changes to the San Onofre Permanently Defueled Emergency Plan. The inspection results were discussed with members of your staff at the conclusion of the on-site inspections.

During this inspection, NRC staff examined activities conducted under your license as they relate to public health and safety to confirm compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. The enclosed report presents the results of this inspection. No violations were identified, and no response to this letter is required.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

T. Palmisano

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If you have any questions concerning this inspection, please contact Paul J. Elkmann, Senior Emergency Preparedness Inspector, at 817-200-1539, or the undersigned at 817-200-1911.

Sincerely,

/RA/

Mark S. Haire, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-361 and 50-362
License Nos. NPF-10 and NPF-15

Enclosure:
Inspection Report 050-00361/15-010;
050-00362/15-010 w/Attachment:
Supplemental Information

T. Palmisano

- 2 -

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Distribution:
See next page

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OFFICE	SEPI:PSB1	C:PSB1	C:RSFS	C:PSB1				
NAME	PEIkmann	MHaire	RKellar	MHaire				
SIGNATURE	/RA/	/RA/	/RA/	/RA/				
DATE	10/1/15	10/1/15	10/1/15	10/5/15/				

OFFICIAL RECORD COPY

Letter to Thomas J. Palmisano from Mark S. Haire, dated October 5, 2015

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION – NRC INSPECTION
REPORT 050-00361/2015-010; 050-00362/2015-010

cc w/enclosure:

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L. Bosch, Southern California Edison Company
W. Mathews II, Esquire, Southern California Edison Company
J. Madigan, Southern California Edison Company
J. Kay, Southern California Edison Company
K. Gallion, Southern California Edison Company

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 050-00361, 050-00362

Licenses: NPF-10, NPF-15

Report: 050-00361/2015-010; 050-00362/2015-010

Licensee: Southern California Edison

Facility: San Onofre Nuclear Generating Station, Units 2 and 3

Location: 5000 South Pacific Coast Highway, San Clemente, California
92674

Dates: August 20 through October 25, 2013
August 24 through August 26, 2015

Inspectors: P. Elkmann, Senior Emergency Preparedness Inspector
G, CHP, Emergency Preparedness Inspector
S. Hedger, Operations Engineer, Operations Branch

Approved By: Mark S. Haire
Chief, Plant Support Branch 1
Division of Reactor Safety

EXECUTIVE SUMMARY

Southern California Edison
NRC Inspection Report 050-00361/2015-010; 050-00362/2015-010

These U.S. Nuclear Regulatory Commission (NRC) inspections were routine, announced inspections of emergency preparedness activities at the San Onofre Nuclear Generating Station. In summary, the licensee was maintaining required emergency preparedness capabilities in accordance with procedures, license requirements, and regulations.

Decommissioning Emergency Preparedness Reviews

- The inspectors observed an emergency preparedness exercise conducted on October 23, 2013, and concluded there continued to be reasonable assurance that the licensee's emergency response organization was capable of taking adequate measures to protect the health and safety of the public. (Section 1)
- The inspectors observed an emergency preparedness exercise conducted on August 25, 2015, and concluded there continued to be reasonable assurance that the licensee's emergency response organization was capable of taking adequate measures to protect the health and safety of the public. (Section 2)
- The inspectors concluded that San Onofre Nuclear Generating Station staff appropriately implemented the requirements of 10 CFR 50.54(q)(3) with respect to Permanently Defueled Emergency Plan, Revision 1. The inspectors did not identify any reductions in the effectiveness of the revised emergency plan. (Section 3)

REPORT DETAILS

Site Status

The licensee elected to permanently shut down the San Onofre Nuclear Generating Station facility in June 2013. At the time of the inspections, the licensee continued to prepare for site decommissioning. Prior to June 2015, the licensee continued to maintain emergency preparedness capabilities as described in Emergency Plan Revisions 34, 35, and 36. After June 2015, the licensee maintained emergency preparedness capabilities as described in the Permanently Defueled Emergency Plan, Revisions 0 and 1, both implemented June 8, 2015.

1. October 2013 Emergency Preparedness Exercise Review

1.1 Inspection Scope

Three regional inspectors observed the emergency plan exercise conducted on October 23, 2013, using inspection procedure 71114.01, to determine whether the emergency response organization was proficient at the key emergency response skills and capable of implementing the licensee's Emergency Plan. The key emergency response skills included the recognition of emergency events, notifications to offsite authorities, development of protective action recommendations for the public, radiological assessment, the protection of emergency workers, and in-plant actions to mitigate the event. The inspectors also compared the licensee's performance in previous exercises to performance in the October 23, 2013, biennial integrated exercise and observed the licensee's post-exercise critique to determine whether the licensee was appropriately identifying and correcting performance weaknesses and other problems.

The results of this inspection had not been documented previously because the licensee made changes to their emergency response organization in Emergency Plan Revision 34, implemented August 20, 2013, which had not been appropriately submitted to the NRC and determined to be acceptable (Inspection Report 05000361/2013501; 5000362/2013501, dated March 26, 2014, ADAMS Accession Number ML14085A502). The NRC subsequently determined with the issuance of license amendments approving the licensee's decommissioning Emergency Plan (ADAMS Accession Numbers ML15082A143 and ML15126A302) that the emergency response organization observed during the October 23, 2013, exercise did provide an acceptable basis for determining whether there continued to be reasonable assurance that adequate measures could have been taken to protect the health and safety of the public.

1.2 Observations and Findings

The inspectors observed the San Onofre Nuclear Generating Station's October 23, 2013, biennial exercise, which included simulations of an offsite grid disturbance leading to a loss of offsite power, the trip of the Unit 2 diesel generators because of fuel problems causing a partial station blackout, the dropping of a loaded spent fuel storage cask because of a failed brake mechanism, and a small simulated release of radiation from the plant caused by a crack in the spent fuel storage cask. The inspectors determined that the scenario events did provide the site emergency response

organization opportunities to demonstrate two emergency classifications, a protective action recommendation to offsite authorities, three notifications to appropriate offsite authorities, radiological assessment of damaged cask and small release of radioactive material, the protection of emergency workers in the turbine building, and the restart of vital in-plant systems after offsite power is restored.

The inspectors observed the response of San Onofre Nuclear Generating Station's emergency response organization during the October 23, 2013, exercise. The licensee demonstrated timely recognition of entry conditions for two emergency classifications, made timely and accurate notifications to offsite authorities, made a timely and accurate recommendation to offsite authorities for the protection of the public, appropriately assessed radiological conditions in the turbine building and offsite, took appropriate measures to protect emergency workers, and dispatched emergency workers to mitigate loss of onsite emergency power and to restart plant systems after the restoration of offsite power. Throughout the simulated emergency, the emergency workers demonstrated a good knowledge of the site emergency plan and procedures, quickly recognized events requiring emergency response, and properly prioritized worker protection and in-plant mitigation efforts. The inspectors concluded that the San Onofre Nuclear Generating Station's emergency response organization demonstrated that it was capable of taking appropriate actions to protect the health and safety of the public.

The inspectors reviewed drill and exercise evaluation reports issued between January 2012 and September 2013 to identify performance and facility problems identified by the licensee. The inspectors compared the performance during the October 23, 2013, exercise to previous performance to verify that problems had been appropriately corrected. The inspectors did not identify any recurring problems.

1.3 Conclusions

The inspectors observed an emergency preparedness exercise conducted on October 23, 2013, and concluded there continued to be reasonable assurance that the licensee's emergency response organization was capable of taking adequate measures to protect the health and safety of the public.

2. August 2015 Decommissioning Emergency Preparedness Exercise Review

2.1 Inspection Scope

Two regional emergency preparedness inspectors reviewed the scenario for the August 25, 2015, integrated exercise conducted at San Onofre, and subsequently observed the licensee emergency response organization's response to the scenario. The inspectors reviewed the scenario to determine whether it provided opportunities for the emergency response organization to demonstrate the key skills of emergency classification, notification of authorities, in-plant mitigation and repair, protection of emergency workers, and radiological assessment and response. The inspectors observed the exercise to determine whether the emergency response organization was proficient at the key emergency response skills and capable of implementing the licensee's decommissioning Emergency Plan. The inspectors also compared the licensee's performance in previous exercises to performance in the August 25, 2015,

integrated exercise and observed the licensee's post-exercise critique to determine whether the licensee was appropriately identifying and correcting performance weaknesses and other problems.

2.2 Observations and Findings

The inspectors reviewed San Onofre Nuclear Generating Station's scenario for the August 25, 2015, exercise, which included simulations of an explosion in switchyard relays, loss of offsite power to both units, and an attempted site intrusion. The inspectors determined that the scenario events did provide the site emergency response organization opportunities to demonstrate two emergency classifications, two notifications to appropriate offsite authorities, the protection of emergency workers in the protected area, and preparations for repairs to an emergency diesel generator. Together, these simulated events provided a basis to determine whether the emergency response organization remained capable of implementing appropriate measures to protect the health and safety of the public.

The inspectors observed the response of San Onofre Nuclear Generating Station's emergency response organization during the August 25, 2015, exercise. The licensee demonstrated timely recognition of emergency conditions, timely and accurate notifications to offsite authorities, dispatched the site fire brigade to the simulated fire, took appropriate measures to protect emergency workers, and made preparations to dispatch emergency workers to mitigate the event. Throughout the simulated emergency the emergency workers demonstrated a good knowledge of the site emergency plan and procedures, quickly recognized events requiring emergency response, and properly prioritized worker protection and in-plant mitigation efforts. The inspectors concluded that the San Onofre Nuclear Generating Station's emergency response organization demonstrated that it was capable of taking appropriate actions to protect the health and safety of the public.

The inspectors reviewed two drill and exercise evaluation reports issued between January and July 2015 to identify performance and facility problems identified by the licensee. The inspectors compared the performance during the August 25, 2015, exercise to previous performance to verify that problems had been appropriately corrected. The inspectors did not identify any recurring problems.

The inspectors observed the licensee's post-exercise critique on August 25, 2015, and the subsequent management briefing conducted on August 26, 2015, to determine whether San Onofre Nuclear Generating Station identified the performance weaknesses and facility problems which occurred during the August 25, 2015, exercise. The inspectors compared the problems identified by the licensee with those problems independently identified by the inspectors. The inspectors concluded that San Onofre Nuclear Generating Station identified all of the performance weaknesses and facility problems which occurred during the exercise and had (would) appropriately entered them into the corrective action process.

2.3 Conclusions

The inspectors observed an emergency preparedness exercise conducted on August 25, 2015, and concluded that there continues to be reasonable assurance that the licensee's emergency response organization is capable of taking adequate measures to protect the health and safety of the public.

3. **Review of the San Onofre Permanently Defueled Emergency Plan, Revision 1**

3.1 Inspection Scope

A regional emergency preparedness inspector reviewed Revision 1 to the San Onofre Permanently Defueled Emergency Plan, implemented June 8, 2015, using inspection Procedure 82501, Attachment 3. Revision 1 made numerous changes to clarify language and intent.

3.2 Observations and Findings

The inspector conducted an on-site review of the San Onofre Permanently Defueled Emergency Plan, Revision 1, and of the licensee's 50.54(q)(3) analysis supporting Revision 1, dated June 8, 2015.

3.3 Conclusions

The inspectors concluded that San Onofre Nuclear Generating Station staff appropriate implemented the requirements of 10 CFR 50.54(q)(3) with respect to Permanently Defueled Emergency Plan, Revision 1. The inspectors did not identify any reductions in the effectiveness of the Emergency Plan.

4. **Exit Meeting**

On August 26, 2015, the inspectors presented the inspection results to Mr. L. Bosch, Plant Manager, and other members of the licensee's staff. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INSPECTION INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

L. Bosch, Plant Manager
J. Madigan, Oversight
J. Davis, Manager, Operations
D. Faass, Regulatory Affairs Analyst, Regulatory Affairs & Emergency Preparedness
K. Gallion, Manager, Emergency Preparedness Planning
J. Kay, Manager, Nuclear Regulatory Affairs
J. Janke, Manager, Radiological Control and Chemistry
J. Peattie, Manager, Maintenance and Work Control
R. Quam, Manager, Security

INSPECTION PROCEDURES USED

IP 82401 Decommissioning Emergency Preparedness Review and Exercise Evaluation
IP 82501 Decommissioning Emergency Preparedness Program Evaluation

ITEMS OPENED, CLOSED, AND DISCUSSED

None

DOCUMENTS REVIEWED

Section 2: August 2015 Decommissioning Emergency Preparedness Exercise Review

Procedures and Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	San Onofre Nuclear Generating Station Permanently Defueled Emergency Plan	1
PDEP-2	Emergency Action Level Technical Basis Manual	0
SO123-VIII-ERO-2	Shift Manager/Emergency Director Checklist	0
SO123-VIII-ADMIN-3	Emergency Preparedness Program Drill Development and Evaluation	0
	Report of Nuclear Oversight Board Meeting, April 14-16, 2015	
SCES-007-15	Emergency Preparedness Audit	July 16, 2015
	SONGS Emergency Preparedness Offsite Compliance Review	February 19, 2015
	Emergency Planning Snapshot Assessment	January 19, 2015
	Drill Evaluation Report for July 21, 2015	
	Drill Evaluation Report for June 23, 2015	

Nuclear Notifications (Corrective Action Program, NN-)

202827656 203233338 203233166 203233589 203242554 203233765

Section 3: Review of the San Onofre Permanently Defueled Emergency Plan, Revision 1

Procedures and Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
SO123-VIII-ADMIN-4	10 CFR 50.54(q) Screenings and Evaluations	0