

January 10, 2013

10 CFR 50.4

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Subject: **Docket No. 50-361**  
**Response to Request for Additional Information (RAI 16)**  
**Regarding Confirmatory Action Letter Response**  
**(TAC No. ME 9727)**  
**San Onofre Nuclear Generating Station, Unit 2**

- References:
1. Letter from Mr. Elmo E. Collins (USNRC) to Mr. Peter T. Dietrich (SCE), dated March 27, 2012, Confirmatory Action Letter 4-12-001, San Onofre Nuclear Generating Station, Units 2 and 3, Commitments to Address Steam Generator Tube Degradation
  2. Letter from Mr. Peter T. Dietrich (SCE) to Mr. Elmo E. Collins (USNRC), dated October 3, 2012, Confirmatory Action Letter – Actions to Address Steam Generator Tube Degradation, San Onofre Nuclear Generating Station, Unit 2
  3. Letter from Mr. James R. Hall (USNRC) to Mr. Peter T. Dietrich (SCE), dated December 26, 2012, Request for Additional Information Regarding Response to Confirmatory Action Letter, San Onofre Nuclear Generating Station, Unit 2

Dear Sir or Madam,

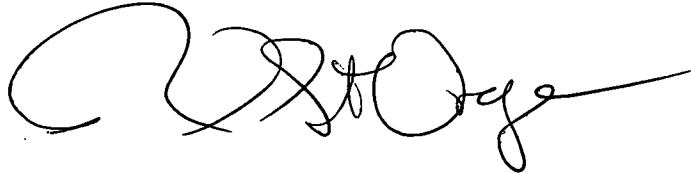
On March 27, 2012, the Nuclear Regulatory Commission (NRC) issued a Confirmatory Action Letter (CAL) (Reference 1) to Southern California Edison (SCE) describing actions that the NRC and SCE agreed would be completed to address issues identified in the steam generator tubes of San Onofre Nuclear Generating Station (SONGS) Units 2 and 3. In a letter to the NRC dated October 3, 2012 (Reference 2), SCE reported completion of the Unit 2 CAL actions and included a Return to Service Report (RTSR) that provided details of their completion.

By letter dated December 26, 2012 (Reference 3), the NRC issued Requests for Additional Information (RAIs) regarding the CAL response. Enclosure 1 of this letter provides the response to RAI 16.

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There are no new regulatory commitments contained in this letter. If you have any questions or require additional information, please call me at (949) 368-6240.

Sincerely,

A handwritten signature in black ink, appearing to read "R. E. Lantz", with a long horizontal flourish extending to the right.

Enclosures:

1. Response to RAI 16

cc: E. E. Collins, Regional Administrator, NRC Region IV  
R. Hall, NRC Project Manager, San Onofre Units 2 and 3  
G. G. Warnick, NRC Senior Resident Inspector, San Onofre Units 2 and 3  
R. E. Lantz, Branch Chief, Division of Reactor Projects, NRC Region IV

# **ENCLOSURE 1**

SOUTHERN CALIFORNIA EDISON  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION  
REGARDING RESPONSE TO CONFIRMATORY ACTION LETTER

DOCKET NO. 50-361

TAC NO. ME 9727

**Response to RAI 16**

## **RAI 16**

Reference 1, Section 9.3, page 50 – Provide additional information concerning the “Operational Decision Making” process and describe how it would be applied if the proposed criterion is exceeded. Provide the procedural action statement.

### **RESPONSE**

Reference 1, Section 9.3 states: “The plant procedure for chemical control of primary plant and related systems has been modified to require action if the specific activity of the reactor coolant Dose Equivalent Iodine (DE I-131) exceeds the normal range of 0.5  $\mu\text{Ci/gm}$ , which is one-half of the TS Limit of 1.0  $\mu\text{Ci/gm}$ . In the event that the normal range is exceeded, Operations is required to initiate the Operational Decision Making process to evaluate continued plant operation.”

#### **Operational Decision Making Process**

The San Onofre Nuclear Generating Station (SONGS) Operational Decision Making (ODM) process is based on the Institute of Nuclear Power Operations (INPO) 2011 document, “Principles for Effective ODM,” which was developed by an industry task force with assistance from INPO and U.S nuclear utility managers and executives.

SONGS ODM procedure provides the Operations Shift Manager (SM) and station leadership a framework for making decisions in response to degraded conditions to address long term protection of the public, plant personnel and station assets. Two scenarios are addressed by the ODM process: Type 1 off-normal conditions and Type 2 degraded conditions that fall below the action thresholds defined in license documents or may not be defined in existing procedures.

The ODM process provides checklists with specified considerations the SM uses to ensure a thorough review of the degraded condition is performed and documented. A list of stakeholders is included to facilitate involvement of required subject matter experts and personnel. The purpose of these lists is to provide an established format to address trends, assessments, risks, plant conditions, regulatory commitments, and impacts of the degraded condition to ensure the health and safety of the public. The ODM process results in operational decisions, implementation plans and thresholds to trigger actions.

#### **Establishment of Administrative Limit for RCS DE I-131 Activity Level**

Chemistry procedure, “Units 2/3 Chemical Control of Primary Plant and Related Systems,” has been revised to lower the Reactor Coolant System (RCS) DE I-131 limit from 1.0  $\mu\text{Ci/gm}$  to 0.5  $\mu\text{Ci/gm}$ . The Technical Specification (TS) limit for DE I-131 is 1.0  $\mu\text{Ci/gm}$ . As a defense in depth action included in the Unit 2 return to service plan, if DE I-131 exceeds the Normal Range Limit of 0.5  $\mu\text{Ci/gm}$ , Chemistry personnel will perform sampling for DE I-131 once every four hours until the level is less than 0.5  $\mu\text{Ci/gm}$ . In addition, Chemistry personnel are directed to notify the on-shift Operators to initiate a Type 1 ODM evaluation to determine other appropriate actions to be taken. For this off-normal condition, the ODM will be performed to determine the impact of the increasing levels of DE I-131 and involve senior station management in evaluating continued plant operation. If DE I-131 exceeds 0.5  $\mu\text{Ci/gm}$  for greater than 48 hours, a plant shutdown to Mode 3 will commence with Tavg less than 500°F within 6 hours (as required by TSs when DE I-131 exceeds 1.0  $\mu\text{Ci/gm}$ ). The procedural actions, frequency, and range are shown in the table below.

Using the ODM process, the SM obtains data from (1) Chemistry Department representatives as to the nature of the increasing DE I-131, (2) Nuclear Fuels group concerning the condition of the nuclear fuel pins that would be the source of the increased activity, and (3) engineering personnel regarding the condition of the steam generators. Based on the input from the stakeholders, the SM confers with Station Management to decide future actions, including a potential plant shutdown prior to being procedurally required.

### Chemistry Procedure RCS Activity Level Action Statement

Parameter	Frequency	Normal Range	Comments/Corrective Action
<b>DE I-131, μCi/gm</b>  <b>TS 3.4.16 SR 3.4.16.2</b>	Weekly	≤ 0.5 μCi/gm	<b>TS SR 3.4.16.2</b> Mode 1 requirement for non-transient sample is once per 14 days.  <b>TS 3.4.16</b> <b>VERIFY</b> within 2 to 6 hours following a thermal power change ≥ 15% of the rated power within a one-hour period.  IF DE I-131 <b>EXCEEDS</b> the Normal Range (≤ 0.5 μCi/gm), <u>THEN</u> send a Memo to Operations requesting a Type 1 ODM be performed to continue plant operation considering Steam Generator health.  IF DE I-131 <b>EXCEEDS</b> the Normal Range Limit (≤ 0.5 μCi/gm ), <u>THEN SAMPLE</u> and analyze the RCS every four hours until < 0.5 μCi/gm  <b>NOTE:</b> Actual Tech Spec Limit is > 1.0 μCi/gm, however, TS required Actions shall be performed at > 0.5 μCi/gm  IF DE I-131 is > 0.5 μCi/gm for greater than 48 hours <u>OR</u> greater than the limits of Figure 3.4.16-1 at any time, <u>THEN</u> be in Mode 3 with Tavg <500°F within 6 hours.
	With >15% power change/hour		