

August 6, 2012

Ms. Jen Moffroid  
132 West Paseo De Cristobal  
San Clemente, CA 92672

Dear Ms. Moffroid:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your correspondence dated May 3, 2012, in which you conveyed concerns about the safety of the San Onofre Nuclear Generating Station (SONGS).

SONGS, Units 2 and 3, are currently shut down due to excessive steam generator tube wear. On March 15, 2012, the NRC sent an augmented inspection team (AIT) to the site in response to the January 31, 2012, steam generator tube leak in Unit 3 and the subsequent discovery of significant tube-to-tube wear on both of the Unit 3 steam generators and significantly less tube-to-tube wear on one of the two Unit 2 steam generators. For several months, this team of NRC inspectors, with assistance from other NRC experts, has been closely following the licensee's actions to evaluate the causes of the excessive tube wear and to develop corrective actions to prevent further tube degradation. On June 18, 2012, NRC personnel met with representatives of Southern California Edison (SCE) in San Juan Capistrano, California, to present the NRC's issues and observations resulting from the AIT inspection. As discussed in that meeting, the NRC understands the steam generator thermal hydraulic conditions that resulted in the tube degradation; that these conditions were not accurately predicted during design; and that the licensee is evaluating and developing additional actions to fix and prevent any additional tube-to-tube degradation due to excessive vibration.

On March 27, 2012, the NRC issued a Confirmatory Action Letter (CAL) to SCE, identifying the specific actions the licensee has committed to take prior to returning the units to power operation. The CAL can be viewed on the NRC Web site, <http://www.nrc.gov>, in the Agencywide Documents Access and Management System (ADAMS), at Accession No. ML12087A323. Under the terms of the CAL, each unit will remain shut down until the licensee provides its written evaluations and responses to all of the CAL items for that unit. The NRC will perform additional related inspections and reviews of that information. The NRC will not allow the plant to restart if we are not satisfied it can be operated without undue risk to public health and safety. The NRC will take as much time as needed in determining the appropriate actions to ensure the safety of the public, and will communicate its determinations to SCE regarding the restart of SONGS, Units 2 and 3, in writing.

The NRC takes safety issues at SONGS seriously, as evidenced by our actions to address human performance, management, and safety culture issues at the plant. The NRC continuously inspects, observes, and assesses licensee performance as part of our Reactor Oversight Process, to ensure that licensee corrective actions in these areas are effective and are sustained. The NRC communicates its assessment of plant performance in letters to licensees, which typically are issued semi-annually. The most recent NRC annual assessment

of performance at SONGS, for calendar year 2011, was documented in a letter to the licensee dated March 5, 2012, which is publicly available in ADAMS, at Accession No. ML120610641.

The overall objective of emergency preparedness (EP) is to ensure that the nuclear power plant operator is capable of implementing adequate measures to protect public health and safety in the event of a radiological emergency. As a condition of the operating licenses for SONGS Units 2 and 3, SCE must develop and maintain EP plans that meet comprehensive NRC EP requirements. These EP plans include preparations for evacuation, sheltering, or other actions to protect the residents near nuclear power plants in the event of a serious incident.

The NRC assesses the capabilities of the nuclear power plant operator to protect the public by requiring the performance of a full-scale exercise at least once every two years that includes the participation of government agencies. These exercises are performed in order to maintain the skills of the emergency responders and to identify and correct weaknesses. They are evaluated by NRC inspectors and Federal Emergency Management Agency (FEMA) evaluators. Between these two-year exercises, additional drills are conducted by the nuclear power plant operators that are evaluated by NRC inspectors. The most recent NRC inspection of emergency preparedness issues for SONGS took place in June 2012 and the inspection report documenting the NRC's findings will be issued in the next quarter. The NRC's previous EP inspection findings are in an inspection report dated August 5, 2011, which is publicly available at ADAMS Accession No. ML112170246.

The NRC's regulations are designed to mitigate accident consequences and minimize radiation exposure to the public through protective actions. When a radiological emergency occurs, nuclear power plant personnel evaluate plant conditions and make protective action recommendations to the state and local government agencies on how to protect the population. Based on the recommendation and independent assessment of other local factors, the state or local government agencies are responsible for making decisions on the actions necessary to protect the public and for relaying these decisions to the public. Additional information on emergency preparedness can be found on the NRC website at: <http://www.nrc.gov/about-nrc/emerg-preparedness.html>

Earthquake and tsunami hazards are being addressed for all U.S. nuclear plants as part of the lessons learned from the Fukushima Dai-ichi event in Japan. In March 2011, the NRC established a senior level agency Near-Term Task Force to conduct a methodical and systematic review of NRC processes and regulations to determine additional improvements that could be made to the agency's regulatory system. In October 2011, the NRC staff provided its proposed plan of action and prioritization of the task force recommendations, including actions beyond those recommended in the task force report. That plan is publicly available in ADAMS, at Accession No. ML11272A111, and on the NRC Web site at: <http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2011/2011-0137scy.pdf>.

The agency has been proceeding to address all Tier 1 recommendations from the Near-Term Task Force report. Tier 1 recommendations are those recommendations which the NRC staff determined should be started without unnecessary delay. On March 12, 2012, the NRC issued three orders requiring nuclear power plants to implement safety enhancements related to (1) mitigating strategies to respond to extreme natural events resulting in the loss of electric power at plants, (2) ensuring reliable hardened containment vents (applicable only to boiling-

water reactors with Mark 1 or Mark 2 containments), and (3) enhancing spent fuel pool instrumentation. All operating nuclear power plants are required to begin implementation of the safety enhancements and to complete implementation within two refueling outages, or by December 31, 2016, whichever comes first. In addition, the NRC issued a formal request for information, requesting all operating reactor licensees (1) reevaluate seismic and flooding hazards (including tsunami hazards) at their sites using applicable current methods and information, (2) conduct walkdowns of their facilities to ensure protection against the hazards in their current design basis, and (3) reevaluate their emergency communications systems and staffing levels. The NRC will evaluate SCE's response to the request for information in determining the need for plant modifications or further enhancements to address seismic and flooding hazards at SONGS. These orders and requests for information, as well as other information on the agency's response to the Fukushima event, are accessible on the NRC Web site at <http://www.nrc.gov/reactors/operating/ops-experience/japan-info.html>.

Thank you for conveying your concerns about these matters.

Sincerely,

**/RA/**

Douglas A. Broaddus, Chief  
San Onofre Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-361 and 50-362

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