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SWRCB EXECUTIVE

Control to DWG

VIA E-MAIL & U.S. MAIL

Thomas Howard, Executive Director State Water Resources Control Board 1001 I Street P.O. Box 2815 Sacramento, CA 95812-2815 thoward@waterboards.ca.gov

RE: Update on installation of

Large Organism Exclusion Devices (LOED)

for Primary Offshore Intakes

at San Onofre Nuclear Generating Station (SONGS)

Dear Mr. Howard,

This letter provides an update on Southern California Edison Company's (SCE) efforts to meet the State Water Resources Control Board's (Board) compliance schedule set forth in your October 19, 2011 letter regarding the installation of LOEDs at SONGS.

#### **Updates**

Designing a LOED for SONGS posed unique challenges related to debris loading, design criteria, and operational considerations. This resulted in a lengthy and extensive engineering process to arrive at a design that is the most effective and appropriate technological solution for meeting the LOED requirement while allowing for continued safe and reliable plant operation. SCE is now prepared to move forward with this design, and is making its best efforts to achieve installation in the most expeditious manner possible. Please find below updates from SCE on the engineering and design, environmental review and permitting, procurement and construction, and expected schedule to install the LOEDs on SONGS Units 2 and 3.

### **Engineering and Design**

As indicated in my update letter to you on June 29, 2012, SCE expected to have its final design completed by August 31, 2012. However, the design process took longer than expected due to three engineering issues that subsequently emerged and required additional evaluation. First, as a last step in the engineering process, SCE had to evaluate seismic issues relative to the LOED's interaction with the existing intake and discharge conduits. SCE determined that this analysis required a specialized expertise and had to retain a consultant to perform the evaluation. Second, during the fabrication and construction bidding process, SCE discovered that the piping originally proposed for the LOED structure had a significant lead time. As a result, SCE had to

evaluate whether different fabrication methodology could be used for the piping in order to expedite the delivery of materials, as further discussed below. Finally, SCE encountered a potential issue with the welding process that was originally proposed for the structure and additional time was needed to evaluate an alternate process.

Final engineering involved an iterative process, and each of the three issues identified above required SCE to re-evaluate and re-assess its previous design. Although this resulted in a delay, SCE was able to resolve these engineering challenges and completed final engineering on November 9. This design will be submitted to the Board under separate cover.

# **Environmental Review and Permitting**

As discussed in my May 23, 2012 letter, following a meeting with the permitting/approving agencies, it was determined that the State Lands Commission (SLC) would act as the lead agency for purposes of environmental review pursuant to the California Environmental Quality Act (CEQA). On May 2, 2012, SCE submitted a lease amendment application to the SLC. The SLC prepared an Initial Study (IS)/Proposed Mitigated Negative Declaration (MND) and determined that, with incorporation of the proposed mitigation measures, all project-related impacts would be reduced to less than significant. On October 19, 2012, the SLC adopted the final IS/MND (State Clearinghouse No. 2012081072) and authorized the lease amendment.

SCE also filed permit applications with the California Coastal Commission (Coastal Development Permit), the U.S. Army Corps of Engineers (Nationwide Permit 7), and the San Diego Regional Water Quality Control Board (401 certification). These applications are currently under consideration by the agencies and have not yet been approved. SCE expects to have all necessary permits and approvals for the project by March 2013.

#### **Procurement and Construction**

Following a competitive bidding process, SCE selected a contractor for the project on October 22, 2012, and is currently finalizing the construction contract. Once the construction contract is executed, the contractor will prepare fabrication drawings that support procuring materials for the LOED.

During the bidding process, SCE was informed by the contractors that the procurement of materials for the LOED would require a significant lead time. This is because the specialty material for underwater service is in high demand by offshore drilling companies, and supply is severely limited. SCE evaluated the option of obtaining the material through the international market, but was not successful in identifying a potential source that would reduce the lead time. Seamless piping has the longest lead time (approximately nine months); therefore, an evaluation was performed to determine the acceptability of substituting welded piping for the seamless piping. Material delivery for welded piping has a lead time of approximately four months; however, the steel plate has a delivery lead time of approximately six months. Therefore, the overall lead time for delivery of the welded piping and steel plate is approximately six months.

## Schedule

The current schedule for the installation of the LOEDs is set forth below. It is anticipated that the LOEDs for the two units will be installed sequentially. At this time, SCE expects installation of the Unit 3 LOED to precede Unit 2's LOED installation.

Please note the following time periods affecting the schedule:

- Procurement of materials will require a six-month lead time, commencing in approximately February 2013 (upon completion of the shop drawings) – end of August
- Fabrication of the LOED components can, to some extent, occur in parallel with material procurement to expedite the process. Nevertheless, once the material procurement is completed (with delivery of the steel plate material), an additional six months is needed to fabricate the steel plate components and perform final assembly of the LOEDs offshore – January 2014.
- Installation of the LOEDs would take four weeks for each unit. In addition, the timing for installation of the two LOEDs would be coordinated to optimize the mobilization/demobilization activities. Taking this into account, installation of the Unit 3 LOED is expected to be completed by March 2014, followed by installation of the Unit 2 LOED.

Based on the above, it is anticipated that installation of both LOEDs would not be completed until April 2014. However, this schedule may require adjustment to coordinate the timing of LOED installation with the units being offline. At this time, the operational schedules for Units 2 and 3 are unknown.

SCE is aware that the Board's compliance schedule calls for installation of the LOEDs by December 31, 2012. SCE is committed to installing the LOEDs; however, because of the challenges described above, SCE is unable to meet this timeline. Therefore, SCE respectfully requests that the Board allow additional time for SCE to fulfill its obligations under the compliance schedule.

If you have any questions regarding this letter, please do not hesitate to contact me at (626) 302-9732 or Mike Hertel at (626) 302-9408. Thank you for your consideration of SCE's request

R. David Asti

Principal Advisor, Corporate Environmental Policy

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