

September 30, 2005

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

**SUBJECT: San Onofre Nuclear Generating Station, Units 2 and 3
Docket Nos. 50-361 and 50-362
Response to NRC Request for Information
California Independent System Operator Communications**

Reference: Letter from Ledyard B. Marsh (NRC) to Harold B. Ray (SCE), dated September 2, 2005, Subject: "California Independent System Operator (CAISO) Communications with Southern California Edison Company during the Power Line Outage on August 25, 2005.

Dear Sir or Madam:

The referenced letter requested information from Southern California Edison (SCE) regarding communications with the California Independent System Operator (CAISO) during the Power Line Outage on August 25, 2005. Enclosed is SCE's response to the five questions from the referenced letter.

If you have any questions or require additional information, please contact Jack Rainsberry at (949) 368-7420.

Sincerely,



Enclosure

cc: B. S. Mallett, Regional Administrator, NRC Region IV
C. C. Osterholtz, NRC Senior Resident Inspector, San Onofre Units 2 & 3
J. Donohew, NRC Project Manager, San Onofre Units 2 and 3

Enclosure

Response to NRC Questions

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NRC Question 1. Did the CAISO issue any warnings on the abnormal conditions for August 25, 2005? If there were any warnings, what were those warnings and when were they issued?

Prior to the grid abnormal conditions on August 25, 2005, the California Independent System Operator (CAISO) issued a southern California (CA) region "restricted maintenance operations" at 11:47 PDT for the period from 11:30 to 20:00. The notice was issued because the CAISO anticipated high loads and temperatures across the southern CA region. During a "restricted maintenance operations" notice, work or adjustments may be performed to the power transmission system, system generator, or associated computer control systems but only after receiving the express permission of the CAISO immediately before disabling equipment or starting work.

Also prior to the grid abnormal conditions on August 25, 2005, the CAISO issued a southern CA region "warning" notice at 13:06. The notice was issued because the CAISO anticipated high loads and temperatures across the southern CA region. During the southern CA region "warning" notice, the CAISO advised maximum conservation efforts but without disruption to employment, commerce, or industrial production. Energy market participants were encouraged to offer additional supplemental energy and ancillary service bids.

After the (\pm) 500 kV Pacific Direct Current Intertie (PDCI) transmission line unexpectedly tripped off line, the CAISO issued a southern CA region "transmission emergency" notice for south of Path 26 at 15:52.

NRC Question 2. What type of warnings were directly communicated to SONGS?

The CAISO issued the "restricted maintenance operations" notice at 11:47. The Southern California Edison (SCE) Generation Operations Center (GOC), as required by procedure, notified the SONGS control room of the "restricted maintenance operations" notice. This notification was logged by the San Onofre Nuclear Generating Station (SONGS) control room operators at 11:52.

NRC Question 3. Was there any communication with SONGS from the transmission system operator (TSO/CAISO) before or after load shedding was ordered on the grid?

No. The CAISO request for load shedding was communicated to the SCE Grid Control Center (GCC). By procedure, the GCC does not contact the SONGS control room unless there are grid conditions that would result in inoperability of the offsite power source or would require action by SONGS.

NRC Question 4. Did the communication with the grid operators/CAISO meet your expectations?

Yes. The communications with the CAISO and the SCE GOC/GCC met SONGS expectations. SONGS does not expect communications with the grid operators unless there are grid conditions that would result in inoperability of the offsite power source or would require action by SONGS.

NRC Question 5. Recognizing the significance of the grid transient, what is your assessment regarding the adequacy of the interaction with the TSO/CAISO that you experienced during this event?

Load tripping is an infrequent, but effective method to protect operability of the grid. Control systems are in place to accomplish load tripping in the rare instances when normal generation dispatch is insufficient to respond to a transient. The SCE GCC has systems that will automatically shed predetermined loads at the distribution circuit level. Circuits are grouped in 100 MW blocks that are randomly selected and geographically dispersed around the SCE system. The number of blocks can be selected by the GCC Dispatcher and match the amount of load shedding required by the CAISO. During high load and minimum operating reserve days the GCC Dispatchers are in contact with the CAISO and are prepared to activate load shedding if required to manage the loss of resources or transmission lines. Such was the case in this instance. The loss of the PDCI resulted in overloads on path 26 south and the CAISO requested load shedding in southern California to resolve these line overloads.

While this event required load shedding to manage the offsite transmission network, it was not significant in terms of safe operation of SONGS. Load shedding as requested by the CAISO was successful in maintaining overall grid stability. Minimum transmission frequency experienced at the SONGS switchyard remained above the underfrequency alarm setpoint. Operability of the SONGS offsite power source was never in question. There were no actions required of the SONGS control room operators to respond to this event.

The CAISO, appropriately and in accordance with their procedures, communicated the "restricted maintenance operations", "warning", and "transmission emergency" notice to the SCE GOC/GCC. The SCE GOC, appropriately and in accordance with procedures, forwarded the "restricted maintenance operations" notice to the SONGS control room.