June 29, 2005

LICENSEE: Southern California Edison (SCE, Licensee)

FACILITIES: San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS)

SUBJECT: MEETING WITH REPRESENTATIVES OF SOUTHERN CALIFORNIA EDISON FOR SAN ONOFRE NUCLEAR GENERATING STATION (TAC NOS. MC7189 AND MC7190)

A meeting was held on Friday, June 10, 2005, between the Nuclear Regulatory Commission (NRC) staff and the licensee for San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS). The meeting was held at the request of the licensee for it to explain to the NRC staff its exigent license amendment request (LAR) submitted May 27, 2005 (ADAMS Accession No. ML051530034), in which the licensee included 7 calculations. The licensee proposes to lower the allowable values for dropout and pickup of the degraded voltage function in Surveillance Requirement (SR) 3.3.7.3.a, "Channel Calibration," of the SONGS Technical Specifications (TSs). The notice for the meeting was issued on May 26, 2005.

Enclosure 1 is the list of attendees. Enclosure 2 is the material handed out by the licensee. There was no handout from the NRC staff.

The agenda for the meeting is the following, which is the first page of Enclosure 2:

- Purpose of Meeting and Overview of May 27, 2005, Submittal
- General Design Approach of Revised Offsite Voltage Requirements
- Degraded Grid Relay Setting Calculation Overview
- Results of Steady State and Dynamic System Level Analysis
- Required Plant Modifications and Implementing Schedule

The licensee stated that the SONGS minimum switchyard voltage for degraded grid voltage protection is 218 kV; however, the licensee has recently performed evaluations that indicate 222.2 kV is the voltage required for operability of the immediate access to offsite power. Without access to offsite power, SONGS safety buses would be powered from the diesel generators, and, because offsite power, not the diesel generators, is the preferred source of power, the licensee stated that the LAR is to establish the 218 kV as the minimum switchyard voltage.

In discussing the sustained degraded voltage protection, the NRC staff questioned the licensee about the information provided on the sustained degraded voltage signal (SDVS) on the top of page 3 of Enclosure 2 to the licensee's application. The licensee agreed that item (1) on the SDVS with the safety injection actuation signal (SIAS) (i.e., the DGVSS) is confusing and can be deleted from the application.

After the licensee's presentation on the five bullets given above, the meeting broke into two separate meetings on (1) the details of the dropout and pickup voltage calculations that were attached to the licensee's application dated May 27, 2005, and (2) the methodology for determining the dropout and pickup voltage setpoints.

In the separate meetings numbered 1 and 2, the staff identified additional information that it needed for its review of the LAR. The questions for the additional information are given in Enclosure 3.

The NRC staff completed its discussion of the licensee's application, and the meeting was closed.

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No(s).: 50-361 and 50-362

Enclosures: 1. List of Meeting Attendees
2. Licensee's Handout (ADAMS Accession No. Ml051640430)
3. Additional Information Needed by NRC Staff

cc w/encls: See next page

After the licensee's presentation on the five bullets given above, the meeting broke into two separate meetings on (1) the details of the dropout and pickup voltage calculations that were attached to the licensee's application dated May 27, 2005, and (2) the methodology for determining the dropout and pickup voltage setpoints.

In the separate meetings numbered 1 and 2, the staff identified additional information that it needed for its review of the LAR. The questions for the additional information are given in Enclosure 3.

The NRC staff completed its discussion of the licensee's application, and the meeting was closed.

/RA/
Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No(s).: 50-361 and 50-362

Enclosures: 1. List of Meeting Attendees
2. Licensee's Handout (ADAMS Accession No. Ml051640430)
3. Additional Information Needed by NRC Staff

cc w/encls: See next page

DISTRIBUTION:
PUBLIC
PDIV-2 Reading
RidsNrrDlpm(JZwolinski/TMarsh)
RidsNrrDlpmPdiv(CHolden)
RidsNrrPMJDonohew
RidsNrrSCSDembek
RidsNrrLALFeizollahi
RidsOgcRp
RidsAcrsAcnwMailCenter
RJenkins
AHowe
OChopra
APal
SMazumdar
TPruett, RIV
PRebstock

Notice: ML051460142 **Agenda: ML051450585**
ADAMS ACCESSION NO.: ML051710226 **PKG.: ML051710270** **NRC-001**

OFFICE	PDIV-2/PM	PDIV-2/LA	EEIB-A/SC	EEIB-B/SC	PDIV-2/SC
NAME	JDonohew:sp	DBurnette	AHowe	RJenkins	DCollins
DATE	6/22/05	6/28/05	6/27/2005	6/23/05	6/29/05

DOCUMENT NAME: E:\Filenet\ML051710226.wpd
OFFICIAL RECORD COPY

LIST OF ATTENDEES AT MEETING OF JUNE 10, 2005

ON SOUTHERN CALIFORNIA EDISON APPLICATION SUBMITTED MAY 27, 2005

NAME	AFFILIATION
J. Donohew	NRC/NRR/PDIV-2
A. Howe	NRC/NRR/EEIB
R. Jenkins	NRC/NRR/EEIB
O. Chopra	NRC/NRR/EEIB
A. Pal	NRC/NRR/EEIB
P. Rebstock	NRC/NRR/EEIB
S. Mazumdar	NRC/NRR/EEIB
J. Rainsberry	SCE
L. Conklin	SCE
J. King	SCE
M. Morgan	SCE
K. Hara	SCE
K. Johnson	SCE
J. Summy	SCE

Where:
EEIB = Electrical and Instrumentation and Controls Branch
NRC = Nuclear Regulatory Commission
NRR = Office of Nuclear Reactor Regulation
PDIV-2= Project Directorate IV-2
SCE = Southern California Edison

ENCLOSURE 1

LICENSEE'S HANDOUT FOR JUNE 10, 2005, MEETING

ADAMS ACCESSION NO. ML051640430

The licensee's handout contained the following:

1. The licensee's agenda for the meeting (1 page).

2. Tables on U2 Trains A and B, U3 Trains A and B, and Common (5 pages).

3. Degraded Grid Plan (14 pages).

4. Analysis Limits Voltage, Surveillance Voltage, and Technical Specification (Tech Spec) Voltage for 230 kV Switchyard Voltage at 218 kV and 219 kV (2 pages).

ENCLOSURE 2

ADDITIONAL INFORMATION NEEDED BY NRC STAFF

(13 Questions)

1. Provide 4160V and 480 V continuous (operating) voltage ranges (i.e. 4160 ± 10%) and minimum rated starting voltage for motors. State that our analysis using ~215kv in the switchyard shows adequate voltages for starting and continuous operation. Provide a summary table of the results including where they came from:

Voltage Level	Minimum Continuous Voltage	Starting Voltage	Analysis Result	Where from Calculation
4160				
480				

2. Provide a summary of the ongoing evaluation of voltages at the 280V/120V levels and address how these loads will have adequate terminal voltages during all conditions.

3. Provide rated voltages for transformers that supply the 4KV buses (reserve auxiliary transformers), motors, and the diesel generator (DG), including the DG automatic voltage regulator setting

4. Discuss and provide the SDVS/DGVSS logic diagram from the design basis document (DBD), and also provide the schematic and elementary diagram for these relays.

5. Submit the applicable page of the Electrical Transient Analysis Program report for one 4KV and one 480V motor starting that shows the initial, starting and post-starting voltages.

6. Send a copy of the sequencing overlap calculation graph that demonstrates the imprecise (but within allowable value) sequence timer operation is acceptable.

7. State that there are no random loads that will come on at the 480VAC and 208V/120V levels during load sequencing or if there are some random loads, explain how they are accounted for in the calc.

8. Explain the 4.11 second timer setpoint in Technical Specification (TS) 3.3.7 and the basis for the 4.11 seconds in Calculation E4C-082. Also, describe how one timer opens the voltage check window with a SIAS present and another timer closes the voltage check window.

9. Submit the assumption sections from the base calculations for Calculations E4C-082 and -090.

10. Explain, column by column, what is on Calculation E4C-090 CCN 117 page 8, as well the last column on page 37 of the same calculation.

ENCLOSURE 3

11. Submit general criteria to determine new settings of the degraded voltage protection relay (dropout and pickup values).

12. Since it takes approximately 6.6 seconds (i.e., 4.44 seconds delay plus the 2.17 seconds relay time) for the degraded grid relays to disconnect from the offsite power source when the SIAS signal is present, discuss what happens to those loads that are already sequenced on the safety buses assuming concurrent SIAS and degraded grid conditions. In addition, discuss the operation of the loads if SIAS occurs first in the above scenario. Discuss if there may be any problem in re-starting those loads on the DG.

13. It was stated in the meeting that on a sustained degraded grid condition, the SDVS will separate safety buses from the offsite power system if the degraded grid conditions are not improved within 130 seconds. Discuss if the plant is tripped under these conditions and indicate, if the plant is tripped, what signal trips the reactor in this scenario. If not, what actions are taken to prevent sequencing of safe shutdown loads on the safety bus when supplied by DG.

cc:
Mr. Daniel P. Breig, Plant Manager
Nuclear Generation
Southern California Edison Company
San Onofre Nuclear Generating Station
P. O. Box 128
San Clemente, CA 92674-0128

Mr. Douglas K. Porter
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, CA 91770

Mr. David Spath, Chief
Division of Drinking Water and
Environmental Management
P. O. Box 942732
Sacramento, CA 94234-7320

Chairman, Board of Supervisors
County of San Diego
1600 Pacific Highway, Room 335
San Diego, CA 92101

Eileen M. Teichert, Esq.
Supervising Deputy City Attorney
City of Riverside
3900 Main Street
Riverside, CA 92522

Mr. Gary L. Nolff
Power Projects/Contracts Manager
Riverside Public Utilities
2911 Adams Street
Riverside, CA 92504

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Mr. Michael Olson
San Diego Gas & Electric Company
P.O. Box 1831
San Diego, CA 92112-4150

Mr. Ed Bailey, Chief
Radiologic Health Branch
State Department of Health Services
Post Office Box 997414 (MS7610)
Sacramento, CA 95899-7414

Resident Inspector/San Onofre NPS
c/o U.S. Nuclear Regulatory Commission
Post Office Box 4329
San Clemente, CA 92674

Mayor
City of San Clemente
100 Avenida Presidio
San Clemente, CA 92672

Mr. Dwight E. Nunn, Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92674-0128

Mr. James D. Boyd, Commissioner
California Energy Commission
1516 Ninth Street (MS 31)
Sacramento, CA 95814

Mr. Ray Waldo, Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92764-0128

Mr. Brian Katz
Vice President, Nuclear Oversight and
Regulatory Affairs.
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92764-0128

cc:
Mr. Steve Hsu
Department of Health Services
Radiologic Health Branch
MS 7610, P.O. Box 997414
Sacramento, CA 95899

Adolfo Bailon
Field Representative
United States Senator Barbara Boxer
312 N. Spring St. Suite 1748
Los Angeles, CA. 90012

Mr. Harold B. Ray
Executive Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128, Mail Stop: D-3-F
San Clemente, CA 92674-0128