U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-362/82-03

Docket No. 50-362 License No. CPPR-98 Safeguards Group

Licensee: Southern California Edison Company

2244 Walnut Grove Avenue

Rosemead, California 91770

Facility Name: San Onofre Unit 3

Inspection at: Construction Site, San Diego County, California

Inspection conducted: February 22-26, 1982

Inspectors: W. J. Wagner
W. J. Wagner, Reactor Inspector — 3/5/82 Date Signed

Date Signed

Approved by: T. W. Bishop — 3/5/82 Date Signed
T. W. Bishop, Chief
Reactor Projects Section 1

Summary:

Inspection on February 22-26, 1982 (Report No. 50-362/82-03)

Areas Inspected: Routine, unannounced inspection by regional based inspector of construction activities involving preservice examination, safety related instrumentation, and followup on previous inspection items. The inspection involved 33 onsite inspection hours by one NRC inspector.

Results: No deviations or items of noncompliance were identified.

RV Form 219 (2)

DETAILS

1. Persons Contacted

a Southern California Edison Company (SCE)

*D. B. Schone, Project QA Supervisor
*D. C. Stonecipher, Construction QA Supervisor
V. A. Gow, QA Engineer
S. S. Dziewit, QA Engineer
*G. P. Vaslos, QA Engineer

b. Bechtel Power Corporation (Bechtel)

*L. W. Hurst, Project QA Manager
*J. W. Sheppard, Project QA Supervisor
*J. H. McCarty, Project QC Manager
*J. L. Taylor, QC Engineer - Electrical/Instrumentation
K. P. McNeal, QA Engineer - Electrical/Instrumentation
G. G. Kabler, Lead Discipline Field Engineer
G. D. Neighbors, Construction Field Engineer
W. M. Senn, Receiving QC Engineer
L. Wolfenden, Cognizant Startup Engineer

*Denotes those attending exit meeting.

2. Site Tour

Upon arrival at the site, the inspector toured the containment building and control room area to ascertain general compliance with regulatory requirements, codes, standards and site procedures.

No items of noncompliance or deviations were identified.

3. Licensee Action on Previous Inspection Items

(Closed) Followup Item (50-362/82-02/01): Auxiliary Feedwater (AFW) Pump Motor Failures

Two AFW pump motors failed during testing as a result of bearing and rotor shaft damage (IE Inspection Report No. 50-361/82-06 and 50-362/82-02). The licensee concludes that the probable cause of failure to the bearings was due to the lack of lubrication. This apparently was caused by operator error in that the force feed overflow sight-glass device was mistaken for the oil-level sight glass. These overflow weir devices are intended to assure bearing lubricant flow for a force-feed lubrication system. Since force-feed lubrication is not required for normal operation of these motors, the licensee's corrective action is to remove these overflow weir devices. This item is closed.

4. Preservice Inspection (Baseline)

a. Observation of Work Activities

The inspector observed liquid penetrant (LP) examination being performed on the weld joining the no. 2 steam generator cold leg to reactor coolant pump 2B. The weld designation is 03-014-002 which is a safe-end-to-elbow weld. The correct LP procedure was available at the area of examination. Attributes evaluated by the inspector were application and removal of penetrant, penetrant remover and developer, chemical certifications of penetrant material (sulfur and halogen content), technique for evaluation of indications and reporting of examination results. In addition, the inspector reviewed the qualifications and certifications of the NDE personnel performing this inspection. All were qualified to perform liquid penetrant within their respective certification level.

b. Repairs

The inspector reviewed the preservice examination records in order to determine if any repairs were required as a result of any examinations. This review revealed that no repairs were made involving excavation and welding of pressure retaining components during the Unit 3 preservice examination.

No items of noncompliance or deviations were identified.

5. Instrumentation (Components and Systems)

a. Observation of Work and Work Activities

The inspector visually examined completed work on instrument components identified and located in the systems indicated below, to verify that the instruments were installed in accordance with applicable specifications, work and inspection procedures. Specifically, the inspector verified that the instruments were identified and properly located, were adequately supported and protected, were subjected to QC inspection, and are physically separated from redundant instrument components.

(1) Reactor Protection System

(a) Instrument No. 3LT-1106: Steam Generator Water Level Low Side.

(b) Instrument No. 3PT-101-3: Pressurizer High/Low Pressure Trip.

(2) Engineered Safety Features Activation System

(a) Instrument No. 3FT-1021: Steam Flow Indicator

(b) Instrument No. 3PT-0351-2: Containment Pressure

(3) Plant Control System

(a) Instrument No. 3FIT-9128: Flow Indication Transmitter

(b) Instrument No. 3LCHL-5801: Containment Sump Level Control

(c) Instrument No. 3LT-0110-2: Pressurizer Level Transmitter

b. Review of Quality Records

The inspector reviewed the quality records for the instrument components inspected in item 5.(a) above. Records reviewed include material receiving reports, receiving inspection data reports, certification of equipment, installation inspection records, and QA audit records associated with site instrumentation activities.

No items of noncompliance or deviations were identified.

6. Instrumentation (Cables and Terminations)

The inspector observed work activities associated with instrument cables for compliance with applicable specifications and licensee installation drawings (schemes) and procedures. Cables were inspected at both beginning and end terminations. Two of the cables inspected were traced from termination to termination to assure that location, cable size, physical separation and protection, grounding, raceway loading, and proper terminations and routing were in agreement with the specifications and wiring drawings. The cables were all installed as specified on the installation drawing or "scheme". Each scheme consists of raceway cards, pull cards, termination cards and instrument CIDR's (Construction Inspection Data Report). The inspector reviewed these cards to verify proper cable routing and termination. The instrument cables and terminations inspected, indicated below, are categorized within their respective safety-related system.

(1) Safe Shutdown System

(a) Scheme No. 3DRR904 - Panel to penetration box.

(b) Scheme No. 3CRL09124 - Panel to penetration box. Termination on this cable is to a Cannon Plug in panel 3L91. Work was in progress on installation of the module to which the cable will plug into.

(2) Radiation Monitoring System

(a) Scheme No. 3BDO 43404 - Panel to panel.

(b) Scheme No. 3CRL 10301 - Panel to radiation box.

(3) Safety Related Display Instrumentation

(a) Scheme No. 3ARL 12442 - Panel to penetration box.

(b) Scheme No. 3BRL 12835 - Panel to penetration box.

In addition, the inspector reviewed three final (as-built) design cable installation schemes for comparison with the actual installation. Field Change Request (FCR) No. E-5506 was attached to Scheme No. 3BD200B. The FCR was subjected to the same design review and approval as the original scheme. No discrepancies were observed due to in-process changes such as those initiated by the design organization or initiated in the field.

No items of noncompliance or deviations were identified.

7. Exit Meeting

The inspector met with licensee representatives (denoted in paragraph 1) on February 26, 1982. The scope of the inspection and findings as detailed in this report were discussed.