U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-361/80-06
50-362/80-04

Docket No. 50-361, 50-362 License No. CPPR-97, CPPR-98 Safeguards Group

Licensee: Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre Units 2 and 3

Inspection at: Construction Site, San Diego County, California

Inspection conducted: March 1-31, 1980

Inspectors: R. J. Pate, Resident Inspector — 4/24/80 Date Signed

Date Signed

Date Signed

Approved By: R. T. Dodds, Chief, Engineering Support Section
Reactor Construction & Engineering Support Branch — 4/24/80 Date Signed

Summary: Inspection on March 1-31, 1980 (Report Nos. 50-361/80-06 and 50-362/80-04)

Areas Inspected: Routine, unannounced inspection by the resident inspector of construction activities including: piping storage and fitup; reactor pressure vessel and internals protection, storage of high strength fasteners; weld rod control; licensee corrective actions on previous inspection findings; and general work in progress. The inspection involved 34 inspector-hours onsite by one NRC inspector.

Results: Of the five areas inspected, one item of noncompliance and one deviation was identified.

RV Form 219 (2)

DETAILS

1. Individuals Contacted

   a. Southern California Edison Company (SCE)

   +*D. E. Nunn, Manager, Quality Assurance
   +*P. A. Croy, Site Project Quality Assurance Supervisor
   R. R. Hart, Construction Manager
   D. B. Schone, Lead Engineering Site Representative
   =*W. L. Rossfeld, Construction Lead QA Engineer

   b. Bechtel Power Corporation (Bechtel)

   =+*C. A. Blum, Quality Control Manager
   =+*R. H. Cutler, Project Field Engineer
   +*J. E. Geiger, Project Quality Assurance
   +*W. D. Nichols, Assistant Project Field Engineer
   =+*L. W. Hurst, Project Field Quality Assurance Supervisor
   R. W. Welcher, Project Quality Assurance Engineer
   + J. E. Bashore, Division Quality Assurance Manager

   In addition, construction craftsmen, engineers and foremen were contacted during the inspection.

   *Denotes attendees at management meeting on March 7, 1980
   +Denotes attendees at management meeting on March 21; 1980
   =Denotes attendees at management meeting on March 27, 1980

2. Construction Status

   The licensee reported the site construction work is 78% complete as of March 26, 1979. The licensee's project management personnel estimated that the construction of Units 2 and 3 was 90% and 61% complete, respectively.

3. Storage of High Strength Bolts

   High strength bolts (A490, 1 1/2 inch diameter, 5 inches long) were observed on March 5, 1980 in the iron workers' storage area at Jap Mesa in a 5-gallon bucket that was half filled with water. The bolts were coated with a film of red rust. There were approximately 100 other 5-gallon containers in the area also filled with nuts and bolts. Most of these were covered with a large sheet of plastic. Several buckets including the one noted above were not covered. It appeared that the cover had been removed and not replaced, allowing rain to fill the buckets. From the condition of the bolts it appeared

that the bolts had been in the water for some time. The use of a plastic sheet to cover the buckets of bolts and nuts at the Jap Mesa storage area was discussed at the weekly meeting on December 14, 1979. The inspector noted the possible need for improving the storage conditions at that time, but no action was taken.

The storage of high strength bolts in a manner that allows them to become corroded is contrary to the requirement of ANSI Standard N45.2.2-1972, Section 3.2.4(3) which states in part "Items subject to detrimental corrosion, either internally or externally, shall be suitably protected." The SCE QA Plan, Chapter 13 and the Bechtel QA Plan Procedure No. 13 both reference the requirement of ANSI N45.2.2. The Bechtel construction procedure WPP/QCI 008 commits to the requirements of ANSI N45.2.2-1972 as modified by Regulatory Guide 1.38.

This is an apparent deviation. (50-361/80-06/01)

4. Weld Rod Control

Four E7018 (Low Hydrogen) welding electrodes were found in the Unit 3 High Pressure Safety Injection (HPSI) pump room (RM-015) on 3/13/80. No one was working in the room at the time and the shift was not over. The inspector returned to the HPSI pump room the next morning (3/14/80) and the rod had not been returned to the rod room or discarded by bending. The SCE QA management personnel was immediately advised and this was discussed with SCE management personnel at the Friday weekly meeting 3/21/80. The inspector was advised that SCE and Bechtel had done several surveillances during the week and had found no additional incidence of weld electrodes not being properly controlled. SCE concluded that the electrodes found by the inspector were an isolated case.

On March 24, 1980, after completion of the work shift nineteen (19) E7018 welding electrodes were found uncontrolled at elevation 30 feet, next to stairway in containment for Unit No. 3, and on March 26, 1980, unbent E7018 welding electrodes were retrieved from the rod stub barrel outside of welding rod room No. 3.

Bechtel Work Plan Procedure/Quality Control Instructions (WPP/QCI) No. 200, Control of Welding Filler Material, Rev. 11.0, Paragraph 6.1.6 states that "At the completion of the welder's work shift, the portable rod warmer, container pouch, all unused filler material and the welder copy of the WR-6, WR-7 or WR-99 forms shall be returned to the Rod Room attendant;" Paragraph 8.1.1 states that, "Electrodes returned to the rod room and not intended for re-issue shall be bent 180° and placed in a suitable trash barrel by the rod room attendant."

This is an apparent item of noncompliance (50-361/80-06/02).

5. Reactor Vessel and Internal Installation and Storage

Site activities for storage of the Units 2 and 3 reactor pressure vessels and internals were observed. Both vessels are installed and installation of Unit 2 internals is essentially complete. Installation of Unit 3 internals is nearly complete.

No items of noncompliance or deviations were identified.

6. Reactor Coolant Pressure Boundary and Safety-Related Piping

The piping related activities listed below were observed to ascertain compliance with applicable construction specifications and procedures.

Activity	System	Identification No.
Weld Fitup	Safety Injection	S2-1204-ML-032 Rev. 13
Storage	Component Cooling Water	S3-CC-084-2
Storage	Component Cooling Water	S3-CC-078-2

No items of noncompliance or deviations were identified.

7. Plant Tour

The inspector toured both Units 2 and 3 several times each week during the inspection report period. Particular attention was directed to observing work in progress, availability of supervision and quality control inspectors at the work areas, housekeeping and preservation of equipment.

During the tour, the following additional items were observed:

A. One of the four anchor bolts used on pipe hanger S2-RC-157-H-00A (supports a 3/4 inch sample line from the reactor coolant system) was of a different type than the other three bolts. Additional followup revealed that three of the anchor bolts were per the drawing and the fourth was a stud which was not properly marked. The stud was removed and a shell type concrete anchor was found properly installed. The construction specification allows substitution of a shell anchor for an expansion anchor. The inspector also observed that the shell anchor was installed at a slight angle. The construction specification CS-C8 did not have an acceptance criteria for concrete anchors installed at an angle. The licensee was requested to provide acceptance criteria or explain why acceptance criteria was not needed. (50-361/80-06/03)

B. The flange on the reactor coolant pump loop 1B bleedoff line, S2-1201-ML-043, to the flow indicator 2FI-0160 was observed to be highly magnetic although the attached piping was non-magnetic. It appears from the specification that the pipe and the flange should be stainless steel. SCE management personnel were asked to determine whether or not the flange was nonconforming. (50-361/80-06/04).

C. The inspector observed the setup for grinding the upper core support key ways (slots) per Field Action Request (FAR) No. 1370-183. The slots had to be reground as a result of the shrinkage that resulted from welding the flow channel extensions on to the fuel alignment plate.

No items of noncompliance or deviations were identified.

8. Management Interview

The inspector met with the licensee representatives (denoted in Paragraph 1) on March 7, 21 and 27, 1980. The scope of the inspections and the inspector's findings were discussed. The licensee representatives made the following commitments.

A. The high strength bolts stored at Jap Mesa would be placed under a permanent cover. See Paragraph 3.

B. A new weld rod control program will be implemented for better accountability for weld rod that has been issued. See Paragraph 4.

C. The material specification for the reactor coolant pump bleedoff line will be reviewed for acceptability of magnetic material. See Paragraph 7.B.