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

	REGION V	
eport No.	50-361/80-10 <u>50-362/80-07</u>	
ocket No.	50-361/362 License No. <u>CPPR-97/98</u>	Safeguards Group
icensee: _	Southern California Edison Company	
	2244 Walnut Grove Avenue	
_	Rosemead, California 91770	· · · · · · · · · · · · · · · · · · ·
acility Na	me: San Onofre Unit 2 and 3	
nspection	at: Construction Site, San Diego County, Californ	nia
nspection	conducted: June 17-20, 1980	
inspectors:	RJDodesta	8/21/82
· · ·	J. H. Eckhardt, Reactor Inspector	/ Dat/e Signed
	PPNalit	08/21/80
	P. P. Narbut, Reactor Inspector	Date Signed
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	W.L.Q.C.S	Date Signed
pproved By	R. T. Dodds, Chief, Engineering Support Section	Date Signed
ummary:	Reactor construction and Engineering Support Bran	JTI
Inspection on June 17-20 and July 14-18, 1980 (Report No. 50-361/80-10 and 50-362/80-07).		

Areas Inspected: Routine, unannounced inspection by regional based inspectors of construction activities including: previous inspection findings; pipe support concrete expansion anchor bolt installation; qualification of NDE personnel; code plate welding allegation; and followup on 10 CFR Part 21 deficiencies. The inspection involved 108 onsite inspector hours by two NRC inspectors.

RV Form 219 (2)

<u>Results</u>: Of the areas inspected, no items of noncompliance or deviations were identified.

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DETAILS

1. Individuals Contacted

- Southern California Edison Company (SCE) a.
 - *D. E. Nunn, Manager, Quality Assurance
 - *P. A. Croy, Site Project Quality Assurance Supervisor
 - *T. O. Gray, Construction Lead QA Engineer
 - *W. M. Petro, Assistant Project Manager
 - V. A. Gow, QA Engineer
 - *J. A. Parent, Electrical Engineering Site Representative
 - *A. C. Bose-Roy, Engineer
 - R. L. Cantrell, QA Engineer S. S. Dziewit, QA Engineer

 - *G. F. Egan, QA Engineer
 - J. Wambold, Project Construction Manager
 - C. K. Balog, Engineer

Bechtel Power Corporation (Bechtel) b.

- *J. Bashore, QA Manager
- *R. H. Cutler, Project Field Engineer
- *C. A. Blum, Project Field QC Supervisor
- *J. E. Geiger, Project QA Supervisor
- *L. W. Hurst, Project Field QA Supervisor
- *W. D. Nichols, Assistant Project Field Engineer
- D. Martin, QC Engineer Supervisor
- *P. Dragolovich, Project Manager
- E. Richardson, Engineer
- H. A. Campos, Engineer
- L. Stromberg, Engineer E. Hatzler, Electrical Engineering Group Supervisor
- L. Towles, Assistant Supervisor Drawing Control
- K. Hebegger, Piping Superintendent
- R. Barnes, QC Engineer
- E. Luder, OA Engineer
- *G. Alvarez, Project Field Engineer
- Peabody Testing, Inc. с.

A. Morrill, Project Manager

*Denotes those attending exit interview.

2. Construction Status

The licensee estimated that as of June 11, 1980 the construction of Units 2 and 3 was 93% and 63% complete, respectively.



3. Licensee Action on Previous Inspection Findings

The inspector examined the action taken by the licensee on the following outstanding items:

a. (Closed) Noncompliance (50-361/80-01/02)

Pipe Spring Hanger and Support Assembly Deficiencies.

Licensee action to correct and prevent reoccurrence of deficiencies identified during the 50-361/80-01 inspection was examined. The subject pipe support assemblies were inspected and all deficiencies had been corrected. Changes (PCN 24) and Appendix II to WPP/QCI-414 "Field Fabrication and Installation of Pipe Supports of Project Class A-I and P" have been issued to clarify and detail QC inspection instructions. Also, training sessions have been presented to the Pipe Support Field Engineers and QC Engineers regarding these instructions. This item is considered closed.

b. (Closed) Followup Item (50-361/79-29/04)

Seismic Support of Loss of Turbine Load Trip Class IE Cables.

An FSAR change has been submitted to clarify the structural support requirements for class IE cables in seismic category 2 structures. This item is considered closed.

c. (Closed) Followup Item (50-361/79-24/04)

Separation Criteria for Electrical Cable.

The licensee has submitted a change to the FSAR regarding separation criteria for flexible metallic conduit being identical to rigid metallic conduit for specific applications. This item is considered closed.

d. (Closed) Followup Item (50-361/79-23/03)

FSAR Depiction of Preferred Power.

An FSAR change has been submitted for the physical arrangement drawing of the SONGS 2/3 preferred power supply to show the as built condition of power line crossovers. This item is considered closed.



(Closed) Unresolved Item (50-362/80-06/01) e.

Equipment Storage.

The temporary shelters containing battery cells, emergency generators, and emergency diesel engines have been modified and now meet the intent of the storage conditions specified in ANSI N45.2.2 for those items. The licensee has also started an increased surveillance program in the storage area to ensure the intent of ANSI N45.2.2 is met for all equipment. Since the applicable Bechtel procedure WPP/QCI-008 "Material Receiving, Pre-Installation, Storage, and Handling" is based on ANSI N45.2.2, a procedure change is not considered necessary. Based on the licensee's commitment to increase surveillance of this area to ensure storage requirements of ANSI N.45.2.2 are being met, this item is considered closed.

(Closed) Followup Item (50-361/79-29) f.

Allegation Concerning Weld Cracks.

Repair of weld B on line S3-1201-ML-010 is complete. The inspector reviewed the weld repair documentation and viewed the final radiographs of the repair. The radiographs indicate an acceptable weld per ASME Section III, Subsection NB. Also, SCE Field Surveillance Reports W-1-80 and M-21-80 covering this weld repair were reviewed. This item is considered closed.

(Closed) Noncompliance (50-362/79-27/01 and 50-361/80-06/02) g.

Weld Filler Metal Control.

IE Inspection Report 50-361/79-29 Appendix A paragraph c and Inspection Report 50-361/80-06 Appendix A are citations dealing with welding electrodes not returned to the rod room attendent at the end of the shift. The licensees response dated May 28, 1980 committed to certain corrective actions; the principal actions being to revise WPP/OCI-200 Appendix VIII to require standard quantities of welding filler material to be issued, and documented daily checks of each craftsman to account for all filler material issued to the craftsman.

The inspector performed an audit of the Unit 3 work areas where welding had been in progress before the work stoppage. No uncontrolled filler metal was observed. The inspector examined records of the field check of craftsman by the foreman for the weeks of 6/22 and 6/29/80 and observed the notation which indicated a check for weld filler material had been made. This item is closed based on the

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actions committed in the licensee's response of May 28, 1980 and the fact that additional inspections will be made in the normal course of future inspections.

h. (Open) Unresolved Item (50-361/79-06/01)

Controlled Drawings Used in the Field Were Not the Latest Revision.

The inspector determined through discussion with the Drawing Control personnel that the white drawing stations are updated daily by document control personnel. The field personnel are responsible to insure the pink drawings in use in the field are up to date. Since no work was underway in the field, proper revisions of field drawings were not checked. The inspector randomly sampled 6 drawings at Unit 3 station 15 and verified the revisions were up to date compared to the computer listing of July 14, 1980.

The inspector further determined through discussion with drawing control personnel that in addition to daily updates of all white drawings stations, a single white drawing station is audited each month. The inspector examined the audit results for the last several months and observed that the audit findings indicated that many drawings were found missing or out of date. The audit results were stated in general terms in most cases but indicated that the while stations were generally found to have a number of drawing errors.

This item will be inspected further in a future inspection to determine if the pink drawings in use in the field are up-to-date when compared to the computer listing.

In the review of monthly audits the inspector observed that the monthly audit scheduled to be performed in February was dated February 1, 1980 whereas it had been actually conducted in April and May 1980. The participating document control auditors signed the audit without dating their signatures. This was explained to be a method of keeping track of which audit was being conducted. Licensee personnel had the audit for the month of February corrected and committed to have a training session with the document control auditors. The inspector had no further questions regarding the dating of drawing station audits.

i. (Closed Noncompliance (50-361/79-23/01) and Followup Item (50-361/79-19/02)

Cable Tray Cleanliness



Inspection Report 50-361/79-23, Appendix A is a citation regarding cable tray cleanliness. The licensee's response of November 27, 1979 committed to actions to avoid further violations.

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The inspector examined the cable tray cleanliness in the Unit 2 Control Building area 60 foot elevation, 50 foot elevation, and Switchgear Room 50 foot elevation. The general condition of cleanliness was found to be satisfactory. This item is considered closed based on the general condition of cleanliness observed and the actions committed in the licensee's response of November 27, 1979.

j. (Closed) Open Item (50-361/80-05/01)

Pipe Support Concrete Expansion Anchor Bolts Have the Ends Ground Off.

The licensee provided documentation that the pipe supports identified by the inspector in Report 50-361/80-05 were not safety related and therefore not an NRC concern.

The inspector examined Quality Class I pipe supports for evidence of length marking on the ends of the anchor bolts and sufficient embedment. The following supports were inspected and bolt length markings checked: SA SS 079 H 00C; S2 SS 166 H 0CC; S3 SS 098 H 0CK; SA GR 019 H 00A; SA AS 084 H 009; SA GR 003 H 0AG; SA GR 007 H 0AG; SA GR 099 H 00A.

One support SA GR 020-H 00A had questionable marking on two bolts in that the marking was very faint. The QC inspector who verified the anchor bolt installation was interviewed and stated at the time of verification (11-15-79) the markings were sufficiently clear for his verification. The inspector had no further questions. This item is considered closed.

k. (Closed) Unresolved Item (50-362/79-09/02)

Liquid penetrant examination indications in pipe weld was determined to be non-relevant by visual examination.

During a previous NRC inspection, questions were raised concerning the disposition of liquid penetrant examination indications believed to be nonrelevant blemishes from grinding by means of visual examination. The NRC's concern was that this practice could result in lowering the quality standards if abused by the testing personnel. Furthermore, this matter is addressed in paragraph NB-5351 of Section III of the ASME Boiler & Pressure Vessel Code. The inspector obtained a NRC regulatory position on this issue which was discussed with the licensee and is as follows:

"Prior to making a final determination that indications assumed to be caused by surface conditions are non-relevant, sufficient surface preparation and reexamination should be performed to establish the character of the pipe. Enough random sampling should be done to convince the inspectors involved that the indications are due to the surface roughness and imperfections such as scratches and blemishes. Once the character of the pipe is established the inspectors may agree that the surface condition can remain "as is" provided the non-relevant indications are not sufficiently dense in any area to mask indications of defects."

During these discussions with licensee and A/E personnel, the inspector determined that the licensee's nondestructive examination (NDE) OA engineer conducts audits for NDE and specifically checks for adequacy of interpretation of indications. Further, the examinations have a degree of redundancy in that the liquid penetrant examinations are repeated by a different crew of examiners for preservice examinations. Additionally, the authorized inspector is accompanied by a Bechtel escort who is a qualified Level II examiner.

At the exit interview, licensee management committed to continue audits and surveillances to ensure liquid penetrant examinations are conducted in accordance with the requirements of the ASME B&PV Code and the NRC's position concerning indications considered to be nonrelevant.

This item is closed based on the licensee's commitment and the fact that NDE will be examined further in the normal course of future NRC inspections.

4. Pipe Support Concrete Expansion Anchor Bolt Installation

The inspector examined Specification CS-C8, Design, Installation and Testing of Concrete Expansion Anchors Rev. 7, of May 12, 1980 as amended by SCN's CS-244, CS 243 and CS 240 and Procedure WPP/QCI 011 Installation of Concrete Expansion Anchors Rev. 10 of 1/7/80 as amended by PCN 4 of 2/27/80 for compliance to IE Bulletin 79-02 Rev. 2 Pipe Support Base Plate Design Using Concrete Expansion Anchor Bolts. The examination revealed several areas where bulletin requirements were not covered by the procedures reviewed. The inspector provided comments on the procedures to cognizant licensee personnel. Licensee management at the exit interview committed to review and resolve the comments. This item will be inspected further on a future inspection (50-361/80-10/01).

Qualification of Non Destructive Examination Personnel 5.

The inspector examined the qualification and certification of Nondestructive examination personnel for compliance to the requirements of Peabody Testing Inc., Quality Assurance Plan, Project QA Administration 2.3, Qualification and Certification of Non Destructive Examination Personnel, San Onofre Nuclear Generating Station Units 2 & 3 and SNT-TC-1A 1975 Edition.

The inspector determined that Peabody's administrative requirements for qualification and certification of personnel meet the requirements of SNT-TC-1A. One aspect of the qualification requirements is more relaxed than recommended by SNT-TC-1A, that is, the Peabody requirements allow the "Specific" portion of the written examination to be an open book examination whereas SNT-TC-1A recommends the examinations be administered closed book. Since SNT-TC-1A presents itself as guidelines and allows for modification of its recommendations and since the nature of the material provided for the open book test is codes and standards, the inspector had no further questions.

The inspector examined the qualification records of five Level I and II NDE personnel.

No items of noncompliance or deviations were observed.

Code Plate Welding Allegation 6.

An allegation was received by the resident inspector regarding nonconformance report P-1853 concerning tack welding of a code plate (weld SCE) on pipe S2-1305-ML-099 Sht. 3. The NCR (date May 6, 1980 and subsequently invalidated) indicates that the welder assigned to weld the code plate (based on his welding symbol being on the filler metal withdrawal form) did not in fact weld the code plate to the pipe. The NCR was written based on a note written by the welder to a welding QC inspector indicating that he had not performed the weld even though the weld papers indicated he was the welder. The welder subsequently signed a statement that he did in fact make the code plate tack welds. The NCR was then invalidated and the alleger contacted the NRC resident inspector with a concern that the welder had been pressured into changing his story. During the investigation, the code plate tack welds were visually examined and appeared satisfactory. In addition, the welder was interviewed and questioned about the change in story and possible pressure applied. He stated that no pressure had been applied to him by anyone and that when he wrote the original note that he did not think he had made the weld. After review of the the records and giving the matter further thought he then came to the conclusion that he did in fact tack weld the code plate to the pipe.



Based on the visual examination of the code plate tack welds, review of the welding records, and interview with the welder, the inspector considers this item closed.

7. Followup on 10 CFR Part 21 Deficiencies

Licensee action regarding the following Part 21 reports was reviewed:

a. Exide Battery Racks

Based on a Part 21 report from Exide, additional isolation bars are required to be added to the Class IE battery racks to isolate, in two-cell increments, the build up of horizontal momentum in a string of cells on a rack during a seismic event. The battery racks for both Unit 2 and 3 batteries were inspected to determine status of the modification. There are 48 required isolation bars for each Unit. All but six isolation bars have been installed in Units 2 and 3. The project is awaiting delivery of parts to complete the Unit 3 installation. The six isolation bars not yet installed are for battery rack 3B010 and is documented on NCR E-569.

The inspector considers this item closed for the purpose of NRC followup based on the item being tracked on Bechtel's nonconformance report system.

b. Exide Batteries

A Part 21 report from Exide concerns failure of the Class IE batteries to meet the discharge test of IEEE Standard 450 for the 20 year life of the batteries as specified in the purchase order. Exide is unable to deliver redesigned batteries at this time and the original batteries are installed in Units 2 and 3. The licensee plans to replace the batteries at the first refueling outage and is tracking this item on their outstanding items tracking system. This item is considered closed for the purpose of NRC followup based on the item being tracked on SCE's system.

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8. Management Interview

The inspectors met with licensee representative (denoted in Paragraph 1) on June 20 and July 18, 1980. The scope of the inspection and of the inspectors' findings as noted in this report were discussed.

