

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-361/82-07

Docket No. 50-361 License No. CPPR-97 Safeguards Group

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

Facility Name: San Onofre Nuclear Generating Station Unit 2

Inspection at: San Onofre, California

Inspection conducted: January 26-28, 1982

Inspectors: R. F. Fish 3/25/82
R. F. Fish, Emergency Preparedness Analyst Date Signed

K. Scown 3/25/82
K. Scown, Emergency Preparedness Coordinator Date Signed

Approved by: F. A. Wenslawski 3/25/82
F. A. Wenslawski, Chief, Reactor Radiation Protection Section Date Signed

Approved by: F. A. Wenslawski 3/25/82
for H. E. Book, Chief, Radiological Safety Branch Date Signed

Summary:

Inspection on January 26-28, 1982 (Report No. 50-361/82-07)

Areas Inspected: An announced, follow-up inspection to the Emergency Preparedness Appraisal including organization, emergency preparedness training, emergency response facilities, medical treatment facilities, respiratory protection program, communications equipment, accountability, revision of the emergency plan and implementing procedures, meteorological tower, process and effluent monitors, radiochemistry laboratory, and offsite laboratory facilities. The inspection involved 42 hours of onsite time by two NRC inspectors.

Results No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Southern California Edison Company

*W. Moody, Deputy Station Manager
*D. McCloskey, Supervisor of Emergency Preparedness
*D. Benette, Emergency Preparedness Engineer
G. Noel, Training Administrator
R. Dickey, Training Instructor
J. Albers, Radiological Engineer
S. Folsom, Radiological Engineer
D. Lokker, Watch Engineer
S. Ayers, Operations Assistant
F. Gilmore, Operations Assistant
C. Seward, Fire Protection and Safety Administrator
J. Wambold, Construction Manager
*C. Welch, QA Engineer
*D. Pilmer, Acting Manager, Nuclear Engineering and Safety
*G. Allen, Nuclear Engineer
T. Ward, Telecommunications Engineer

*Denotes those present at the exit interview.

Other Personnel

K. Wester, Quadrex Auditor
J. Boone, Quadrex Auditor
R. DeVoto, Assistant Field Construction Manager, Bechtel
M. Retz, Emergency Room Coordinator, South Coast Hospital

2. Organization

At the time of the Emergency Preparedness Appraisal, October 26 - November 6, 1981, some site organizational changes were being initiated. This inspection confirmed that these changes had been implemented. The position of Emergency Preparedness Supervisor had been established and Mr. Dennis McCloskey had been appointed to it. Mr. McCloskey will report to the Deputy Station Manager. In addition, the position of Industrial Safety and Fire Protection Administrator now reports to Mr. McCloskey. The other organizational changes did not have an impact on the emergency preparedness program.

No items of noncompliance or deviations were identified.

3. Emergency Preparedness Training

The SCE training organization has continued their efforts to provide the emergency preparedness (EP) training required by the

SONGS Training Memorandum 10-81, Revision 1, and emergency plan implementing procedure (EIP) number 74. EIP-74 still has not been formally issued; however, according to the licensee/applicant, this procedure will be approved and implemented by February 5, 1982. The Training Administrator noted that Revision 2 of Training Memorandum 10-81 was presently being prepared.

The EP training provided since November 1, 1981 was reviewed. The review included discussions with training personnel and an examination of some of the records. About 80 classes, each containing 20-25 persons, covering an overview of the emergency plan(s) and the classification of emergencies, have been given. Six classes, totaling about 60 persons, have been presented on source terms and dose projections. Twenty-eight persons, 20 of whom were in the health physics organization, have received risks, consequences, and case studies training. Twenty-eight individuals have taken the class on "Command and Control of Evacuations." The six (6) communicators, a newly established position, have all taken the one week course on emergency communications. This training covered both Unit 1 and Units 2/3 personnel.

The licensee/applicant had hired a consultant, Quadrex, to audit the EP training provided to persons assigned to Unit 2 and those who would occupy a position in the Unit 2 emergency plan organization. The audit was expected to be completed by January 30, 1982. During this inspection, it was learned that the auditors had not been informed some courses would cover more than one training requirement (e.g., mitigating core damage includes risks, consequences, and case studies). After the audit is completed, the licensee/applicant will be able to schedule additional EP training so that at the time of fuel loading all Unit 2 personnel and those occupying positions in the emergency organization in the Unit 2 Emergency Plan, will have received the required training. Based on the audit findings as of January 27, it appeared that most of the Unit 2 EP training had been completed.

Since the EP appraisal, the licensee/applicant and Bechtel have reached agreement on a contractor/visitor evacuation plan. This written plan addresses evacuations, training, and drills/tests and was signed by the SCE Supervisor of Emergency Preparedness, Unit 1 Construction Manager and Units 2/3 Construction Manager. This evacuation plan identifies the work assignment areas as the primary assembly point and provides a secondary assembly area for construction forces during a plant evacuation. Bechtel was in the process of preparing a radiological emergency instruction sheet with an accompanying site map showing the secondary assembly area (and other pertinent information) to be used for training their personnel, including their subcontractors. This training was scheduled for February 1, 1982 as the major topic of the safety meeting. Personnel who miss the safety meeting will be instructed on an individual basis during the remainder of the week. Bechtel office personnel will also receive this training during the week of

February 1. SCE will be able to audit the records to assure that all persons received this training.

A program for training the Camp Pendleton fire brigade has been initiated. The training involves a period of two days for each person and is being performed on each Saturday and Sunday. The program was started on January 24, 1982, and will be completed by the end of March. The training of the first two companies, who would be the first ones to respond to a San Onofre Nuclear Generating Station (SONGS) request for assistance, will be completed by February 7. The scope of the training is such that these individuals will be permitted unescorted access to the site, including the protected areas.

The licensee/applicant has arranged for an Emergency Medical Technician (EMT) training program through Saddleback College. This program, which started in January 1982, takes 18 weeks to complete. A total of 25 site personnel, representing a variety of groups, are presently enrolled in the program. According to the licensee/applicant, they hope that at least 15 of the individuals will complete the program.

The EP appraisal suggestion for some type of training for ambulance personnel was considered. The licensee/applicant has concluded that, because the ambulance company has a high rate of turnover, they will provide an escort for such persons entering the site rather than training. The licensee/applicant has purchased an ambulance which will be located onsite and used to transport injured personnel. Thus, when the site ambulance and trained personnel are available, the ambulance company will function in a backup capacity.

Section 3.2 of the EP Appraisal Report (No. 50-206/81-38) discusses a newly initiated training effort to inform persons entering the site, but not a protected area, about the response expected when the radiological warning siren is sounded. This inspection disclosed that a reduced copy of the instructions had been placed on the front of the badge issued to each visitor entering the site. In addition, copies of the instructions, which provide for a signature at the bottom to certify they have been read and understood, were distributed to supervisory personnel who would be authorizing visitors to enter the site. These supervisory personnel were expected to show the instruction to each visitor and obtain the required signature. The licensee/applicant said that they recently audited this program and found it was not functioning as intended. At the time of this inspection, consideration was being given to making changes so that the intended objectives would be met. The NRC inspector informed the licensee/applicant it was his understanding as of November 6, 1981, that the guard at the site entrance would obtain the signature confirming the instructions

had been read and understood. To assure the visitors are made aware of the response procedure, the licensee/applicant said a memorandum would be issued during the week of February 1, 1982 requiring the guards at the site entrances to call each visitor's attention to the emergency response instructions attached to the visitor badge. Additional procedural changes will be made in the very near future to assure that each visitor signs a copy of the radiological emergency instructions certifying he/she has read and understood them.

An improved record keeping system has been developed. The system, titled "Training Record Information Management System (TRIM)," involves the use of the main computer at the General Office in Rosemead, California. The capacity of this computer has recently been doubled. There will be four (4) terminals in the training area. The initial report will draw on three sources of information already in the computer: employee records (job assignment and work location), film badge data and training records. There is a continuing effort to input information on training received into the training records portion of the computer. TRIM will provide a capability to generate information on training received (by individual), training needed, and due dates for retraining. The TRIM program is expected to be put into the computer in April and the first report received in mid May. This first report will coincide with the need to start the retraining program.

No items of noncompliance or deviations were identified.

4. Emergency Response Facilities

a. Technical Support Center (TSC)

The TSC, which overlooks the Units 2/3 Control Room, was examined during this inspection to determine its present operational status. The commercial and dedicated telephones, radios, and intercom system were installed and operable. The ENS (NRC emergency notification system) and HPN (NRC health physics notification system) telephones were also operable. A dedicated telephone line to the State of California (Office of Emergency Services) is expected to be installed in June 1982; however, for the present the State will be notified via one of the commercial lines. Copies of the plant operating procedures, emergency operating procedures, emergency plan and EIP's, Final Safety Analysis Report, and drawings, schematics, and diagrams are in the TSC. The plant operating records and the Onsite Review Committee records and reports are not yet in the TSC; however, these records are in the Administration and Warehouse Building and there is an instrument capability to transmit information and provide hard copies between the TSC and the Conference Room in the Administration and Warehouse Building. The TSC was found to be capable of performing its intended function.

The TSC and the Control Room(s) are connected to the same ventilation system. This ventilation system includes two airborne monitors (particulate, iodine and gases), one for normal mode operation and one for emergency mode operation. In addition, the Control Room has an area radiation monitor. These three monitors have readouts and alarms in the Control Room area but not in the TSC. Thus, the Control Room must notify the TSC when one of these monitors alarms. The licensee/applicant has not yet decided whether to extend these monitor alarms to the TSC or rely on a procedure to notify the TSC of such an alarm. EIP-24, Direction of Onsite Emergency Monitoring, requires the TSC be monitored continuously for radiation dose rates and, unless no release of airborne activity has occurred, at least every 30 minutes for airborne activity.

b. Operations Support Center (OSC)

The OSC, located on the 70 foot level of the Control Building, was examined during this inspection to determine its present operational status. The communication equipment was installed and found to be operational. Locked, metal cabinets, located in the back room of the OSC, contain protective and radiation survey equipment as well as the equipment for the offsite monitoring teams. The OSC is not connected to the ventilation system that serves the TSC and Control Room. The Unit 1 OSC or TSC provide a backup capability if the Units 2/3 OSC becomes uninhabitable. The OSC was found to be capable of performing its intended function.

No items of noncompliance or deviations were identified.

5. Medical Treatment Facilities

The licensee has purchased an ambulance that is presently being outfitted in the Los Angeles area. When the ambulance is placed into service, it will be used for first aid calls and function as a mobile medical treatment facility. The first aid equipment has not yet been distributed to the assigned locations in Units 2/3. According to the licensee/applicant, this equipment has been ordered and will be distributed in Unit 2 when the construction work by Bechtel has been completed. Until this distribution is made, the Bechtel first aid equipment in Unit 2 will be used.

No items of noncompliance or deviations were identified.

6. Respiratory Protection Program

The inspection included an examination of the qualification of personnel to use respiratory protection equipment since the EP appraisal. Personnel subject to such qualification should have

included members of the SONGS fire brigade, operational personnel, the health physics and chemistry technicians, employees in the maintenance organization, and engineering staff. A total of 22 individuals have been qualified; however, only twelve of these are Unit 2 personnel. Most of the security and contract health physics technicians are now respiratory protection equipment qualified; however, only a few from each of the other Unit 2 groups are so qualified. Thus, a significant number of the fire brigade and other emergency response personnel are not yet qualified to wear such equipment. According to the licensee/applicant, the delay in resolving this situation is related to the matter of facial hair. The SCE legal staff and representatives of the Union have been trying to reach an agreement concerning facial hair requirements. The subject of respiratory protection was discussed during the exit interview.

There are 54 Bio Marine Pacs onsite (23 at Unit 1 and 31 at Units 2/3) with an additional 10 on order. In addition, there are 74 replacement oxygen bottles for use in these units. Procedure S023 VII 2.2, Use, Cleaning, and Maintenance of the Bio Marine Pac Respirators, has been issued. According to the licensee/applicant, they have a verbal understanding with a local merchant regarding the filling of the oxygen bottles used in the Bio Marine Pacs during nonregular work hours. Telephone numbers for reaching the merchant have been obtained.

No items of noncompliance or deviations were identified.

7. Communications Equipment

The licensee/applicant has continued the effort to provide satisfactory communications between the onsite and offsite monitoring teams and their base stations located in the Control Room, TSC, Emergency Operations Facility, or the Offsite Dose Assessment Center. A health physics radio system was delivered to the site on January 28, 1982. This system consists of two control consoles, one in each of the TSCs, 20 hand-held radios and a transmitter-receiver unit. The transmitter-receiver has been mounted in the back of a vehicle that will be driven to San Salvador Mountain during an emergency so as to eliminate as much as possible dead spots in the communications system. The vehicle driver will remain on the mountain and monitor the calls to assure the parties can hear each other. If a problem develops, the driver will act as a go-between to assure the transmission of the information or data. When a written agreement is reached with Orange County and approval is received from the FCC, the transmitter-receiver will be permanently mounted on San Salvador Mountain and hard wired to the TSC and the permanent Emergency Operations Facility which is in the initial stage of construction. The permanent installation will involve a separate frequency from that used for the present temporary system.

The radios using one of the Orange Country frequencies are expected to be delivered at the end of February, 1982. These units, which are to be used by SCE personnel during an emergency only, will provide the SCE monitoring teams with a capability to communicate with the TSC and Offsite Dose Assessment Center. The agreement covering the use of these radios contains a provision whereby the County may cancel SCE's use if they need to use the frequency.

No items of noncompliance or deviations were identified.

8. Accountability

This inspection disclosed that the licensee/applicant intended to provide guidance in the security procedures concerning the actions to be taken to account for personnel during an emergency. The applicable EIP's will include a cross reference to this security procedure (No. SOI-IV-2.31, Security Force Response to a Plan or Site Evacuation Order). According to the licensee/applicant, this security procedure is expected to be reviewed and approved by the Onsite Review Committee and approved by the Station Manager by February 13, 1982. The Units 2/3 security procedures will also contain this guidance.

As noted in Section 3 of this report, visitors entering the site are now issued visitor badges to be worn during their site visit. These badges are to assist the individuals responsible for accounting for persons on site during a plant or site evacuation.

No items of noncompliance or deviations were identified.

9. Revision of the Emergency Plan and EIPs

During this inspection, the inspector was provided with a copy of the revised Unit 1 Emergency Plan, dated January 25, 1982, that was to be submitted to the NRC during the week of February 1, 1982. This revision contains expanded information to better address the subjects contained in NUREG-0654, Rev. 1. Also, technical changes have been made in the Emergency Plan to make it consistent with the EIPs. The licensee/applicant stated that this Unit 1 revision of the Emergency Plan is considered to be a description of how the San Onofre site will respond to an emergency. In the future, the Units 2/3 Emergency Plan will be revised to make it consistent with the Unit 1 Plan.

EIP-23, "Dose Assessments," is being revised. Changes in this procedure include modification of the conversion factors and the use of a single page for the dose calculation checklist. The revision of EIP-23 is expected to be reviewed and approved by the Onsite Review Committee and approved by the Station Manager by February 6, 1982. The changes in the procedure have already been incorporated into the training program. The licensee/applicant noted that the training of the operations staff on dose assessment

had been temporarily halted so they could pass the NRC licensing examination. This training was expected to start again in the near future and will be completed prior to fuel load. The operations staff will rely upon a self contained computer program for the primary dose assessment calculation (see Section 4.1.1.1 of Inspection Report No. 50-361/81-31).

10. Meteorological Tower

During this inspection, the licensee/applicant was informed that the EP appraisal would contain a suggestion to consider the removal of equipment trailers, discarded material and parked cars within a radius of about 150 feet from the base of the meteorological tower. This would reduce the possibility that such items might influence the data generated by the instrumentation at the ten meter level of the tower. The licensee/applicant inventoried the items within about 170 feet of the meteorological tower base. The licensee/applicant stated that all of the items within this 170 foot radius would be removed prior to the loading of fuel.

11. Process and Effluent Monitors

During the period January 25-29, 1981, Region V performed a pre-operational inspection that was devoted primarily to the process and effluent monitors at Unit 2. The results of this inspection have been documented in Inspection Report No. 50-361/82-09. At the time of fuel loading, all of the process and effluent monitors except for the wide range monitors on the purge/plant effluent lines and steam jet air ejector effluent line will be operational. The wide range steam jet air ejector monitor is expected to be required by initial criticality. The purge/plant effluent wide range monitor and the main steam line radiation monitors will be operational prior to going above 5% of full power. The technical specifications will address the requirements for process and effluent monitors.

No items of noncompliance or deviations were identified.

12. Radiochemistry Laboratory

During the period January 25-26, 1982, Region V performed a pre-operational inspection of the radiochemistry laboratory, including the counting equipment. The inspection found that the facility was capable of performing the required analyses. The findings of this preoperational inspection have been recorded in Inspection Report No. 50-361/82-05.

No items of noncompliance or deviations were identified.

13. Offsite Laboratory Facilities

According to the licensee/applicant, arrangements have been made with Torrey Pines Technology, a subsidiary of General Atomic, to

provide backup laboratory support for environmental samples. A purchase order for this service is being prepared. Discussions have also taken place regarding the expansion of the arrangement to include other types of samples, e.g., analysis of required post accident samples. There is a basic agreement on the wording of this additional support; however, some of the details still need to be completed before it is finalized. A single purchase order will be issued to cover all of this service.

No items of noncompliance or deviations were identified.

14. Exit Interview

At the conclusion of the inspection, the inspectors met with those persons identified in paragraph 1 and the enclosure to this report. Mr. Frank Wenslawski, Chief, Reactor Radiation Protection Section, USNRC Region V, was also present. The scope of the inspection and the findings were described. The following three findings were discussed in greater detail:

- a. The licensee/applicant confirmed their intent to have the guards who issue the visitor badges call attention to the emergency response actions on the badge at the time the badge is issued. A memorandum will be issued to the guards during the week of February 1, 1982 instructing them to take this action.

Additional action, involving the visitor authorization form, will be taken to assure that visitors coming onsite are aware of the actions they should take when the emergency alarm is sounded.

- b. With respect to the lack of all emergency response personnel being qualified to use the respiratory protective equipment (Bio Marine Pacs), the licensee/applicant said that they would propose to have the following personnel so qualified prior to fuel loading: Control Operators (regardless of position), 100%; Nuclear Plant Engineering Operators, 50%; Health Physics personnel, 100%; Chemical Technicians, 100%; Maintenance and Instrument and Control personnel, 50%; Security personnel, 75%; Emergency Response Leaders, 100%. This number of persons qualified to use respiratory protection equipment would be more than adequate to satisfy the emergency response organization, including augmentation, described in the emergency plan. The licensee/applicant stated that they would notify Region V if they experienced any problems with meeting this commitment.
- c. Arrangements have been made with Torrey Pines Technology, a subsidiary of General Atomic, to provide backup laboratory support for environmental samples. Agreement has also been

reached on providing laboratory support for other types of samples, e.g., primary coolant. A purchase order is being prepared for these services and should be issued within 30 days providing the last few details have been completed.

Enclosure

Persons Attending Exit Interview

J. Curran, Manager, Quality Assurance
D. Schone, Project QA Supervisor, Units 2/3
P. King, Supervisor, Operations QA/QC, Units 2/3
F. Briggs, Compliance Engineer
E. Gault, Compliance Assistant
C. Bostrom, Senior Training Instructor
L. Tipton, Nuclear Engineer
R. Bonnet, Site Security Coordinator, Unit 1

L. Tipton, Nuclear Engineer
R. Bonnet, Site Security Coordinator, Unit 1