

APPENDIX A

NOTICE OF VIOLATION

Southern California Edison Company  
San Onofre Unit 1

Docket No. 50-206  
License No. DPR-13  
EA 81-10

As a result of the inspection conducted on September 22 thru 26 and October 14 thru 17, 1980 and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations and associated problem areas were identified.

I. Civil Penalty Violations.

- A. A number of violations associated with individuals entering the steam generator channel heads have occurred. The Severity Level assigned to the violations associated with this problem area is Severity Level III. Because of the particularly egregious nature of these violations, a cumulative civil penalty of \$100,000 is proposed. The civil penalties have been assessed to the separate violations as indicated below:

1. 10 CFR 20.101 (b), (1) "Radiation dose standards for individuals in restricted area," states in part that, "During any calendar quarter the total occupational dose to the whole body shall not exceed 3 rems."

Contrary to the above, during the third calendar quarter of 1980 twenty-four individuals received total occupational doses to the whole body in excess of 3 rem.

This is a severity level III violation (Supplement IV)  
(Civil Penalty \$75,000).

2. 10 CFR 20.201(b) "Surveys", requires licensees to make surveys as may be necessary to comply with the regulations in 10 CFR 20. Surveys are defined in 20.201(a) as "an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present." 10 CFR 20.202 "Personnel Monitoring", requires that "Each licensee shall supply appropriate personnel monitoring equipment to, and shall require the use of such equipment by:

"(1) Each individual who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of 25 percent of the applicable value specified in paragraph (a) of 20.101."

Contrary to the above, during the third calendar quarter of 1980 surveys or evaluations of the radiation hazard inside the steam generator channel heads were not made as necessary to assure compliance with the whole body dose limits specified in 10 CFR 20.101(b) in that individuals received doses in excess of 3 rem and 10 CFR 20.202 in that appropriate personnel monitoring equipment was not provided to measure the dose to the heads and lens of eyes of individuals permitted to work inside the channel head.

This is a severity level III violation (Supplement IV) (Civil Penalty \$25,000).

- B. A number of violations associated with the September 5, 1980 operations involving the NFS-4, NAC 1E spent fuel shipping cask have occurred. The Severity Level associated with these violations is a Severity Level III. Civil penalties for these violations have been increased by 25% over Table 1 of the Interim Enforcement Policy because you could reasonably have been expected to have taken effective measures to prevent these occurrences. Therefore a cumulative Civil Penalty of \$50,000 is proposed for this problem area. The civil penalties have been assessed to the separate violations as indicated below:

1. 10 CFR 20.201(b) "Surveys", requires licensees to make surveys as may be necessary to comply with the regulations in 10 CFR 20. Surveys are defined in 20.201(a) as "an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present."

Contrary to the above, on September 5, 1980 two individuals working under Radiation Exposure Permit No. 28855 were permitted to handle highly radioactive material associated with a spent nuclear fuel shipping cask and a survey of the radiation hazard to the workers' hands was not made as necessary to assure compliance with the hand dose limit specified in 10 CFR 20.101 in that the beta dose rate was not measured and a survey or evaluation to correct the dose measured by the thermoluminescent finger dosimeter was not made.

This is a Severity Level III violation (Supplement IV) (Civil Penalty \$18,750).

2. 10 CFR 20.103(a)(3) "Exposure of individuals to concentrations of radioactive material in air in restricted areas", states in part: "For purposes of determining compliance with the requirements of this section the licensee shall use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and in addition, as appropriate, shall use measurements of radioactivity in the body, measurements of radioactivity excreted from the body, or any combination of such measurements as may be necessary for timely detection and assessment of individual intakes of radioactivity by exposed individuals."

Contrary to the above, on September 5, 1980 two individuals were permitted to handle highly radioactive materials in the restricted area under Radiation Exposure Permit No. 28855, in a manner that dispersed the materials resulting in facial contamination; no measurement of the concentration of radioactive materials in air in the individuals breathing zone were made; and appropriate measurements of radioactivity in the body and measurements of radioactivity excreted from the body as necessary for timely detection and assessment of the individuals intake were not made.

This is a Severity Level III violation (Supplement IV)  
(Civil Penalty \$18,750).

3. Technical Specification 6.3, "Facility Staff Qualifications" requires that each member of the facility staff meet or exceed the minimum qualifications of ANSI N18.1-1971, "Selection and Training of Personnel for Nuclear Power Plants", for comparable positions. Chemistry and Radiation Protection Technicians are shown as members of the facility staff in Figure 6.2.2.2 of Technical Specification 6.2. ANSI N18.1-1971 requires in Section 4 that, "Nuclear power plant personnel shall have that combination of education, experience, health, and skills commensurate with their level of responsibility which provides reasonable assurance that decisions and actions during all normal and abnormal conditions will be such that the plant is operated in a safe and efficient manner", and that Technicians in responsible positions must have at least two years of working experience in their specialty.

Contrary to the above, on the morning of September 5, 1980, the Radiation Protection Technician who provided direct radiation safety monitoring and control for operations involving the NFS-4, NAC 1E spent fuel shipping cask as required by REP No. 28855 did not have two years of working experience in radiation protection. An interview conducted by an NRC Inspector confirmed that he was not familiar with the shipping cask, was not aware

of the potential radiation hazard, and did not understand the limitations of the survey instrument he used.

This is a Severity Level III violation (Supplement IV)  
(Civil Penalty \$6,250).

4. Technical Specification Section 6.11 requires that written procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure. San Onofre Nuclear Generating Station Radiation Protection Procedure SVIII.8, Revision 2, dated January 10, 1979, "Decontamination Procedure Personnel" states in section E.1 that: "A record of any skin contamination shall be made in the personnel decontamination log book. The entry shall include name, date, time, work location, cpm of contaminated area before and after decontamination, and notice if person was given a whole body scan."

Contrary to the above, on September 5, 1980 two individuals working under Radiation Exposure Permit No. 28855 received skin contamination on two occasions while working with highly radioactive material and the log book record for the first occasion did not include the time, work location, cpm after decontamination and notice whether the person was given a whole body scan. In addition, no log book entry was made regarding the second occurrence of skin contamination for these individuals on the afternoon of September 5, 1980.

This is a Severity Level III violation (Supplement IV)  
(Civil Penalty \$6,250).

## II. Violations Not Assessed Civil Penalties.

- A. 10 CFR 20.103(c) "Exposure of individuals to concentrations of radioactive materials in air in restricted areas" requires in part that: "When respiratory protective equipment is used to limit the inhalation of airborne radioactive material pursuant to paragraph (b)(2) of this section, the licensee may make allowance for such use in estimating exposure of individuals to such materials provided that such equipment is used as stipulated in Regulatory Guide 8.15, 'Acceptable Programs for Respiratory Protection'. Section C.8.1 of Regulatory Guide 8.15 states in part: "respirable air of approved quality and quantity is to be provided...NUREG-0041 Section 9.8" NUREG-0041, "Manual of Respiratory Protection Against Airborne Radioactive Materials", specifies in Section 9.8 that: "All fittings and components shall be standardized so that the introduction of gases other than pure breathing air or pure breathing oxygen into a respirator system is impossible."

Contrary to the above, on September 25, 1980 the type of fittings used on distribution hoses to connect the breathing air portion of the service air system located in the containment and mockup buildings to breathing air distribution boxes were also used throughout the facility on nonrespirable air and other fluid systems making it possible to introduce gases other than pure breathing air into the respirator system.

This is a Severity Level IV violation, (Supplement IV)  
(No Civil Penalty).

- B. 10 CFR 20.203(f) "Caution signs, labels, signals and controls," states: "Except as provided in subparagraph (3) of this paragraph, each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents."

Contrary to the above, on September 22, 1980 the inspector observed an unlabeled, closed 55 gallon drum containing licensed quantities of radioactive material in the "Clean Area" near the spare transformer and none of the exceptions provided in subparagraph (3) applied.

This is a Severity Level V violation, (Supplement IV)  
(No Civil Penalty).

- C. Technical Specification Section 6.11 requires that written procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure. San Onofre Nuclear Generating Station Radiation Protection Procedure SVIII.4, Revision 5, dated April 27, 1979, "Entering and Leaving Steam Generators" states in D.5 that: "The Chemical Radiation Technician shall record the entry time starting when the worker's head enters the manway. The technician shall notify the worker when he must be out. The technician shall record the time and dosimeter data on Form PSSO 245, High Radiation Exposure Dosimeter Log."

Contrary to the above, of ten PSSO 245 forms selected at random for steam generator channel head entries made in the period June 14 thru June 29, 1980 no record of entry time was made on any of the forms. In addition in at least three instances individuals are known to have made steam generator entries and no PSSO 245 forms were maintained.

This is a Severity Level VI violation (Supplement IV)  
(No Civil Penalty).

Pursuant to the provisions of 10 CFR 2.201, Southern California Edison Company is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged item(s) of noncompliance; (2) the reasons for the item(s) of noncompliance if admitted; (3) the corrective steps which have been taken and the results achieved; (4) corrective steps which will be taken to avoid further items of noncompliance; and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.



Victor Stello, Jr., Director  
Office of Inspection and Enforcement

Dated at Bethesda, Maryland  
this 23rd day of January, 1981.