

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

REGION V

Report No. 50-361/79-16  
50-362/79-16  
Docket No. 50-361 License No. CPPR-97  
50-362 CPPR-98 Safeguards Group \_\_\_\_\_  
Licensee: Southern California Edison Company  
P. O. Box 800 - 2244 Walnut Grove Avenue  
Rosemead, California 91770

Facility Name: San Onofre Units 2 and 3

Investigation at: Construction Site, San Diego County, California

Investigation conducted: April 10 to June 27, 1979

Inspectors: R J Dodds 7/20/79  
R. J. Pate, Resident Reactor Inspector Date Signed

\_\_\_\_\_ Date Signed

\_\_\_\_\_ Date Signed

Approved By: R J Dodds 7/20/79  
R. T. Dodds, Chief, Engineering Support Section, Date Signed  
Reactor Construction and Engineering Support Branch

Summary:

Investigation on April 10 to June 27, 1979 (Report Nos. 50-361/79-16 and 50-362/79-16)

Areas Investigated: Union classification and affiliation of electrical construction craftsmen; quality control verification of electrical work activities; and training program for electrical construction workers. The investigation required 33 hours of onsite time by the resident inspector.

Results: No evidence was found to indicate that any of the electrical construction craftsmen at San Onofre Units 2 and 3 were not qualified to perform the safety related work assigned to their craft.

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## DETAILS

### 1. Individuals Contacted

#### a. Southern California Edison Company (SCE)

- \*P. A. Croy, Site Quality Assurance/Quality Control Supervisor
- R. R. Hart, Construction Superintendent
- \*D. E. Nunn, Manager, Quality Assurance

#### b. Bechtel Power Corporation (Bechtel)

- C. A. Blum, Quality Control Manager
- \*B. M. McCullough, Field Construction Manager
- T. Burmer, Electrical Superintendent

#### c. International Brotherhood of Electrical Workers (IBEW)

- F. R. Underhill, Business Manager and Financial Secretary, Local No. 569

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

\*Present at management interview.

### 2. Allegations

On April 10, 1979, SCE provide the Resident Inspector at San Onofre Units 2 and 3 with a copy of a letter from Liam Shaugh (See Attachment 1). Although the name used was fictitious, the inspector was able to contact the allegor. From the letter and the discussion with the allegor, the following is a summary of the allegations:

- a. A large portion of the craftsmen performing electrical construction activities at San Onofre Units 2 and 3 are unqualified. The allegor is apparently defining "unqualified" as a person who has not been classified by the International Brotherhood of Electrical Workers (IBEW) as a Wireman, Lineman, or Cable Splicer as a result of passing a four year apprenticeship program or a journeyman examination.
- b. The craftsmen performing electrical construction activities at San Onofre Units 2 and 3 have not been licensed to do electrical work by any city, county, state or federal agency.
- c. San Onofre project is being used as a training ground for nonqualified electrical personnel.

The allegor stated that his allegation was not aimed at people being trained on the apprenticeship program, nor journeyman electricians on a "traveler" from another local. The inspector asked the allegor if he could identify any specific individuals. The allegor stated that he would not.

### 3. Findings

#### a. Qualifications of Electricians

The Nuclear Regulatory Commission (NRC) regulation, 10 CFR 50, Appendix B, requires that personnel be trained to perform activities affecting quality as necessary to assure that a suitable proficiency is achieved and maintained, and that the activities affecting safety-related structures, systems and components are inspected by individuals other than those who performed the activity being inspected to verify the activity has been done correctly. In this manner, the NRC maintains a high level of assurance that safety-related construction activities are being performed correctly and, thereby, assure the plant will function as designed.

Union classification of the personnel provides assurance that a minimum level of training has been received and suitable proficiency attained by the holder of a specific classification. For example, a craftsman classified as an Outside Wireman will know how to install wire, cable and conduit. However, this does not mean that only outside wiremen are trained to perform these tasks. Electrical craftsmen holding other union classifications have also been trained to perform these tasks.

During the report period, about 700 electrical craftsmen were working as journeyman electricians. The number of electrical craftsmen working out of classification at San Onofre Units 2 and 3 was reported to be 42. Of the 42, 7 were classified as welders and were required to pass a welding requalification test at San Onofre.

Two random samples were taken to obtain an independent profile of the electrical workers at San Onofre by classification. The Union classification of 15 individuals selected at random was obtained from the Union. Of the 15 selected, none were working out of classification. A second group of 21 electrical craftsmen were interviewed by the NRC inspector. Since one of the workers provided conflicting data, the results of his interview were not used. Of the remaining 20 selected at random for interviews, one was working out of classification and one was an apprentice. Since only one electrical craftsman was found working out of classification among the 35 selected at random, the data collected are reasonably consistent with the data provided by the Union. Therefore, the allegation that "a large portion of unqualified personnel are involved in the electrical construction of Units 2 and 3 at the San Onofre Nuclear Generating Station" was not substantiated using the allegors definition of unqualified. It is true that approximately 40 electrical construction

workers are working out of classification (classified other than wireman, lineman or cable splicer). However, an interview of 5 of the 40 revealed that all five had been trained to perform their assigned tasks by either formal instruction or on the job training.

The Quality Control inspectors and Quality Control managers who have the responsibility to verify that the electrical construction work was done correctly, were interviewed. There was no evidence that the craftsmen working out of classification had any higher error rate than the craftsmen classified as linemen, wiremen or cable splicer.

As a result of this review, the inspector could find no safety significance in the fact that approximately 40 of the electrical construction workers were working out of their union classification.

b. Licensee Requirements for Electricians

The allegation that the electrical construction workers at San Onofre are not licensed by any governmental agency is factual. However, there is no applicable license available or required for these workers. San Onofre is not located in a city; so, even if a city license were available, it would not be applicable. No license for electrical workers is available from the County of San Diego, State of California or the U.S. Government. The State does have a contractor's license available and some electrical construction workers at San Onofre have obtained this type of license, but it is not required.

c. Training Activities Conducted Onsite

A large construction project, like San Onofre Units 2 or 3, has some tasks that are somewhat unique to large power plant construction. The installation of cable trays, and 4 inch and larger diameter conduit, are two examples of these types of tasks. It is not unusual for a person to become a journeyman electrician without having an opportunity to do either of these tasks. When sent to San Onofre by the Union, electricians who do not have these power plant unique skills must be trained. Therefore, that type of training of electrical craftsmen is being provided at San Onofre Units 2 and 3. This training is primarily on-the-job training.

The on-the-job training at San Onofre Units 2 and 3 is done under the guidance of other qualified craftsmen and monitored by the craft foreman. The work on tasks, like the installation of cable trays and large conduit, is usually done by a crew of two or more people. The inspector asked each of the craftsmen and foremen who were interviewed, if they had personal knowledge of work on safety-related items being done improperly due to the lack of training of an individual.

In each case, the person being interviewed stated he knew of no work that had been done improperly due to lack of training. The same question was asked of the Quality Control personnel who were interviewed. Their responses were the same.

The inspector, therefore, concluded that the on-the-job training being conducted at San Onofre Units 2 and 3 of electrical construction workers, regardless of union classification, was in accordance with the Quality Assurance program and that the work accomplished by crews with trainees was satisfactory.

4. Management Interview

The results of the investigation were discussed with licensee management on June 4, 1979, as indicated in Paragraph 1. While several workers were interviewed subsequent to the management interview, it did not change the inspector's findings that the electrical work was being accomplished by qualified personnel.

Attachment:  
Copy of Letter.

Dear Sir:

In the wake of the recent new catastrophe at Three Mile Island I feel a moral obligation to inform the Governor, the Media, and the National Regulatory Commission that a large portion of unqualified personnel are involved in the electrical construction of Units 2 and 3 of the San Onofre Nuclear Generating Station (Songs 2&3). This unqualified labor force has not been licensed to perform electrical work by any city, county, state or federal agency—they do not have the working classification of wiremen, lineman or cable splicer who normally perform power house construction. They have not finished a proper four year apprenticeship in construction or for that matter passed a journeyman examination in the building trades. Yet, they are building a nuclear power house. One would ask, how can this be? The answer is simply that the organization through which these individuals are hired will not supply qualified people. If the organization wished to supply qualified journeymen they very well know how to go about it. It is this organizations contention that the installation has to be manned and rather than call out of town for qualified people, which would not increase the cost of construction one dime, they'll let any Tom, Dick, or Harry whom they can control and will support the organization's elected officials from the job: even if the individual has never worked in any kind of construction. In "normal" building construction the industry can usually absorb people who are not qualified and use them constructively while they are being trained. Is this the case at San Onofre? Is a nuclear power house to be a training ground for nonqualified personnel? If complacency and blatant disregard for the public's safety continues, of course. Possibly when SONGS 2&3 is finally on the line, the residents of north county will become very proficient in evacuating procedure as did the residents of Harrisburg. Inquiries have been made into this issue, the result? stonewalled at every turn. The matter can be rectified at neither local nor international level, therefore as the only practical recourse I appeal to the Governor, Media, National Regulatory Commission and President of the International Brotherhood of Electrical Workers in an attempt to rectify this matter before construction at San Onofre continues.

Yours truly,

(signed)

Liam Shaugh  
Loch Lomond, Ca 93426  
Local phone 714-477-3618

Please evaluate and advise.

Charles

cc - Jerry Brown  
San Diego Union  
LA Times

NRC  
Evening Tribune  
Mr. Charles Pillard