

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

REGION III

Report No. 50-295/80-10; 50-304/80-10

Docket No. 50-295; 50-304

License No. DPR-39; DPR-48

Licensee: Commonwealth Edison Company  
P. O. Box 767  
Chicago, IL 60690

Facility Name: Zion Nuclear Power Station, Units 1 and 2

Inspection At: Commonwealth Edison Company Corporate Offices  
Chicago, Illinois

Inspection Conducted: May 13-14, 1980

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6/20/80

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*6/20/80*

Inspection Summary

Inspection on May 13-14, 1980 (Report No. 50-295/80-10; 50-304/80-10)

Areas Inspected: Special, announced inspection of utility management and technical competence in the areas of; offsite staff; resources among utilities; organization arrangement for normal and accident situations; training and requalification of offsite staff; financial capability; emergency procedures; reporting of unusual events and management involvement; and overtime restrictions. The inspection involved 63 inspector hours at the corporate office by four IE:RIII inspectors and three NRR personnel.

Results: No items of noncompliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

C. Reed, Vice President Nuclear Operations  
\*F. Palmer, Division Manager, Nuclear Stations  
W. Kiefer, Director, Nuclear Fuel Services  
\*W. Shewski, Manager Quality Assurance  
\*W. Stiede, Station Nuclear Engineering Manager  
\*J. Danson, Maintenance Manager Nuclear Stations  
R. Hennigan, Operational Analysis Manager  
J. Bitel, Technical Services Manager  
\*D. Galle, Operations Manager Nuclear Stations  
\*L. Peoples, Director Nuclear Licensing  
J. Smith, Office of the Vice President  
\*W. Naughton, Nuclear Licensing

During the course of the inspection, other licensee staff personnel were also interviewed.

\*Denotes those present at the exit interview on May 14, 1980.

### 2. Purpose of Inspection

The purpose of this inspection was to conduct a management and technical review of the Zion Nuclear Station to assure that the licensee meets the requirements for the offsite support personnel, both management and technical, that will assure safe operation of the plant during normal and abnormal conditions and provide the capability necessary to respond to accident situations.

The licensee's onsite management resources and capabilities were inspected by NRR personnel on January 21-22, 1980<sup>1/</sup> and therefore were not included in the scope of this inspection.

1/ Letter fm A. Schwencer, ORB 1, to L. Peoples, CECO Director of Nuclear Licensing "Safety Evaluation of Licensee's Compliance with Category "A" Items of NRC Recommendation Resulting from TMI-2, Lessons Learned."

3. Licensee Action on Previous Inspection Findings  
None were reviewed.

4. Offsite Staff Organization and Technical Competency

The objective of this part of the inspection was to review the organization and the management and technical capabilities of the utility's offsite staff. In performing this task, the utility corporate organizational structure and the responsibilities and qualifications of the principal corporate officers who deal with the utility's nuclear plants were reviewed. The interface arrangements between the corporate officials and the Zion plant staff and the means by which the corporate management stays informed about the Zion plant status and involved in matters pertaining to plant safety were also examined.

a. Documents Reviewed

- (1) Draft Criteria for Utility Management and Technical Competence, dated February 25, 1980.
- (2) Letter, Commonwealth Edison to Harold R. Denton, dated August 13, 1979, with enclosures.
- (3) Updated organizational charts for the corporate structure of Commonwealth Edison.

b. Discussion

As part of its evaluation of the corporate management and offsite technical staff of the Zion Nuclear Station, a team of NRR and IE staff members visited the CECO corporate offices in Chicago, Illinois on May 13 and 14, 1980 where they met with the corporate managers (listed in Paragraph 1 above) to discuss the CECO offsite organization and how it functions. The information discussed in this section was, by and large, obtained orally from the CECO managers in these discussions.

Since the submittal of the August 13, 1979 letter, the corporate organization of Commonwealth Edison Company (CECO) has been altered to strengthen the nuclear operations management and bring all nuclear activities under a senior, knowledgeable management official. This official, Byron Lee, holds the current title of Executive Vice President and is responsible for all engineering, construction and operations of the company's generating facilities, including fossil units. Reporting to Mr. Lee is Cordell Reed, Vice President of Nuclear Operations, who is responsible for the management of nuclear stations, station nuclear engineering, nuclear fuel services, environmental affairs, and nuclear licensing activities.

Quality assurance activities are subdivided into engineering and construction, maintenance, and operations. Quality assurance personnel report through W. J. Shewski to the Vice Chairman of CECo outside the nuclear management chain. The Quality Assurance Group's responsibilities include, among others:

- Reviewing, monitoring and verifying operating activities to assure that requirements are being adhered to as to the Technical Specifications, procedures, regulations, etc. Assuring that all Deviation Reports and associated reporting requirements involving violations, deviations and reportable events are properly carried out and that the onsite and offsite review functions are adequately and properly performed and completed.

CECo has an active program directed at reducing operational error throughout its organization. This program which is called PRO (for professionalism) has been in place for about two and a half years. It brings operational errors to the attention of appropriate levels of management, depending on the seriousness of the errors. The errors are evaluated to determine their causes and to establish corrective action to prevent recurrence. Corrective actions have resulted in change or new procedures, removal of people and corrective guidance to managers. Quarterly and annual awards are given to personnel with outstanding performance with respect to this program. A formal program for review of LERs from non-CECo plants is in place. It is handled by the offsite review committee which considers the LERs. The Committee assigns some of the LERs to appropriate technical support staff for further review. Safety inputs received from EPRI are also sent to the offsite review committee for disposition.

Corporate management uses a computerized tracking system called AIR to internally track the action on all NRC requirements, LERs, EPRI inputs, etc.

The inspectors discussed with Commonwealth Edison corporate personnel the ways in which problems identified during reactor operation receive management attention. The purpose of the discussion was to assure that management becomes aware and takes prompt action of both station and industry wide problems which impact the Zion Station.

The discussions were held between NRC inspectors and the Commonwealth Edison Offsite Review Group. The inspectors found that the ORG was composed of a group of senior Edison engineers who had considerable plant experience. ORG concerns relative to the Zion Station are chaired by the senior ORG participant for the Zion Station. This individual holds a current Senior Reactor Operator License for Zion Station.

The ORG described the system Edison uses to identify station and generic items. Edison is affiliated and uses various industry and government organizations such as NSAC, INPO, Westinghouse Owners Group and IE Bulletins for industry information. Site items are identified by the use of deviation reports which are generated at Zion Station as a result of component failures. Each deviation report is reviewed by the onsite review group as well as the ORG. ORG must concur on deviation report disposition. ORG can factor in industry and senior management experience into deviation report dispositions as well as make direct recommendations to onsite groups.

Based on the inspector's discussions with ORG it was concluded that Edison has established and implemented an extensive offsite review function. This implementation of the offsite review group serves the purpose of involving Edison management in the day to day and industry wide affairs relative to Zion Station.

The inspectors concluded that the ORG meets all NRC requirements for the management review function and is acceptable.

CECo normally uses A/E and contractors to do major design, construction, and maintenance work. Nonetheless, CECO maintains a staff capable of adequately supervising the work of others. The offsite staff, exclusive of environmental affairs, reporting to Mr. Reed consists of about 150 professional personnel in various disciplines who have a combined total of more than 1000 man-years of nuclear experience and a total utility experience of about 1500 man-years. The majority of the individuals who specified and participated in the design and construction of Zion Units 1 and 2 plant systems are still employed by the licensee. The offsite staff members are in frequent contact with the utility's nuclear plants, including the Zion station. In view of this, the utility does not now have a formal mechanism to assure that offsite support personnel maintain a current familiarity with problems and modifications at the Zion Station or at the other nuclear stations operated by CECO.

CECo now has an emergency plan and detailed implementing procedures. In response to NRC requirements, it recently submitted a revised emergency plan which is under staff review. While revised procedures in support of the new emergency plan recovery for both

onsite and offsite resources are not now in place, the company has committed to having detailed implementing procedures in place to support the revised emergency plan by the end of calendar year 1980. This is an open item and will be reviewed in a subsequent NRC inspection.

CECo currently has contracts in existence with ten architect-engineer firms, consultants and NSSS vendors. CECo stated that services under these contracts would be available in the event of an emergency at the Zion Station. Since the utility deals regularly with these organizations, it foresees no difficulty in obtaining assistance under emergency conditions. Since the contracts are already in place, there appears to be no difficulty with financial arrangements to support accident mitigation or recovery efforts by contractor personnel.

Staffing requirements for the offsite recovery staff can be met from the NSS supplier and Architect Engineer where necessary, and from in-house experts meeting or exceeding the acceptance criteria listed in Tables 2 and 3, of the Draft Criteria and ANS 3.1 in the case of health physics technicians, or from equivalent in-house experts. The CECo personnel to be assigned in each area of expertise specified would be drawn from similar areas already established and functioning within the company organization.

The utility representatives stated that CECo has made no arrangements with other utilities for the pooling of resources in the event of an accident at Zion or one of the other nuclear stations operated by CECo. Rather, it has furnished to the Institute of Nuclear Power Operations (INPO) a listing of the resources available within CECo which might be called upon by others in the event of an accident elsewhere. INPO is in the process of compiling an industry-wide listing of all available resources. CECo plans to rely on resources available from the INPO listing for such assistance as may be required in the event of an accident at the Zion Station.

With regard to incident reporting, the inspectors discussed with senior corporate operating personnel, Edison implementation of the recent revisions to 10FR Part 50.72. This regulation requires additional NRC reporting through prompt use of the Red Phone. As part of the inspection, a draft of the Edison's manager's directive implementing 10 CFR 50.72 was reviewed. Corporate personnel indicated that this document was intended to incorporate all reporting requirements contained in Technical Specification, NUREG-610 and NRC Bulletins 79-06B and 79-08.

The inspectors reviewed the manager's directive and identified the following item in which a possible conflict exists between station and NRC red phone policy.

- (a) Notification is required for unplanned unit or reactor trips resulting from valid Reactor Protection System actuation. Excluded as an RPS trip are inadvertent trips. Inadvertent trips are defined in the Technical Specifications as trips that result from personnel error or minor equipment malfunction and are unrelated to a plant transient or valid RPS actuation.

The licensee intends to send the entire draft manager's directive implementing 10CFR50.72 to the Director of Region III for regional comments.

CECo's capability to finance the outside assistance that it might need to support accident mitigation and recovery efforts is currently being reviewed by the NRC.

The inspectors inquired specifically into the matter of overtime policy at the Zion Station and were informed that this is now controlled largely by union contract. The allowable amount of hours that can be worked in a 24 hour period by nuclear plant operators having direct shift responsibilities was compared against the Draft Criteria for Utility Management and Technical Competence dated February 25, 1980:

- (1) No more than 12 hours consecutively
- (2) A 12 hour rest period between work periods
- (3) No more than 72 hours in any 7-day period
- (4) No more than 14 consecutive days without having 2 consecutive days off

The inspectors found that Zion Station has:

- (1) No more than 16 hours consecutively
- (2) An 8 hour rest period between work periods
- (3) No more than 112 hours in any 7-day period
- (4) No limit on consecutive days without having 2 consecutive days off

The licensee made no commitments during the inspection to meet the draft criteria regarding maximum overtime limitations. If the NRC has specific requirements regarding overtime, the utility would appreciate receiving firm guidance so that the union can be notified that a contract change is necessary.

With regard to training, the inspectors were informed that the utility plans

to establish a centralized training facility to handle the training requirements for both its nuclear and fossil stations. This facility, estimated to cost about \$21 million, is to be located at the LaSalle Nuclear Station.

c. Findings

The review of the documents listed in Section 4.a. and interviews with CECO corporate management described in Section 4.b. resulted in the following findings:

- (1) The corporate management of Commonwealth Edison Company is sufficiently involved in matters affecting the Zion Station to assure a continual understanding of plant conditions and safety considerations. Frequent corporate level meetings are held to assure that corporate management is aware of the status of, and any problems that have developed at, the Zion Nuclear Station and other power plants. While there is not a documented procedure covering these meetings and formal meeting minutes are not maintained, these frequent management meetings appear to accomplish the functions of senior management oversight desired by the staff.
- (2) The licensee's current offsite staff exceeds the minimum required staff qualifications and technical capabilities.

No items of noncompliance or deviations were identified.

5. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on May 14, 1980. The scope and findings of the inspection were summarized by the inspectors.