

SAFETY EVALUATION BY  
THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO OPERATION OF  
ZION NUCLEAR POWER STATION UNITS 1 AND 2  
COMMONWEALTH EDISON COMPANY  
DOCKET NOS. 50-295 and 50-304

1.0 Introduction

A. Background Information

Subsequent to the anticipated transient without scram (ATWS) events at the Salem Nuclear Power Plant, the Commission reviewed intermediate term actions to be taken by the licensees. The actions taken were developed on the basis of information contained in NUREG-1000, "Generic Implications of ATWS Events at the Salem Nuclear Power Plant". On July 8, 1983, Generic Letter (GL) 83-28 was issued by NRR. The letter identified NRC positions developed from review of the Salem ATWS events. These positions are related to reactor trip system reliability and general management capability. The specific GL 83-28 items covered by this Safety Evaluation are Sections 3.1.1 and 3.1.2, "Post-Maintenance Testing (RTS Components)"; 3.2.1 and 3.2.2, "Post-Maintenance Testing (All Other Safety-Related Components)"; 4.1., "RTS Reliability (Vendor Related Modifications)"; and 4.5.1, "RTS Reliability (System Functional Test Description)".

B. Licensee's Response to Generic Letter (GL) 83-28

By letters dated November 5, 1983 and June 1, 1984, Commonwealth Edison Company responded to specific items of GL 83-28. The licensee summarized the results of the requested review and concluded that all items have been appropriately addressed.

C. Scope of Review

The staff's review consisted of an evaluation of the response to determine if the requirements of GL 83-28 have been satisfied. The evaluation for each of the items is given below.

2.0 Evaluation

A. Items 3.1.1 and 3.1.2, "Post-Maintenance Testing (RTS Components)"

The review criteria for these items require that the licensee submit a statement indicating that he has reviewed plant test and maintenance procedures and Technical Specifications to ensure that post-maintenance operability testing of safety-related components in the reactor trip system is required. Also, the licensee's statement should contain a verification that vendor recommended test guidance has been reviewed, evaluated, and where appropriate, included in the test and maintenance procedures or the



Technical Specifications. The staff has evaluated the licensee's November 5, 1983 submittal for this item and has determined it to be adequate in content.

B. Items 3.2.1 and 3.2.2, "Post-Maintenance Testing (All Other Safety-Related Components)"

The review criteria for these items require that the licensee submit a statement indicating that he has reviewed plant test and maintenance procedures and Technical Specifications to ensure that post-maintenance operability testing of all safety-related components is required. Also, a statement is required that contains a verification that vendor recommended test guidance be reviewed, evaluated, and where appropriate, included in the test and maintenance procedures or the Technical Specifications. The staff has evaluated the licensee's June 1, 1984 submittal for this item and has determined it to be adequate in content.

C. Item 4.1, "RTS Reliability (Vendor Related Modifications)"

The review criteria for this item requires that the licensee submit a statement indicating that he has reviewed all vendor recommended reactor trip breaker modifications and determined that (1) each modification has been implemented, or (2) a written evaluation which specifies the technical reasons for not implementing the modification exists. The staff has evaluated the licensee's November 5, 1983 submittal for this item and has determined it to be adequate in content.

D. Item 4.5.1, "RTS Reliability (System Functional Test Description)"

The review criteria for this item requires that the licensee submit a statement committing to independent, on-line functional testing of the diverse trip features. The staff has evaluated the licensee's November 5, 1983 submittal for this item, stating that the undervoltage trip feature is tested on-line and the shunt trip feature will be tested on-line upon completion of required modification. This submittal is considered to be adequate in content.

3. Conclusion

The staff concludes that the programs outlined in the licensee's submittals adequately address the requirements of Generic Letter 83-28 for the areas specified in this Safety Evaluation.

Dated: July 5, 1985

The following NRC personnel have contributed to this Safety Evaluation:

T. E. Taylor