

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

GENERIC IMPLICATIONS OF SALEM ATWS EVENT

GENERIC LETTER 83-28, ITEMS 3.1.1 AND 3.1.2

WASHINGTON NUCLEAR PROJECT NO. 2

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

DOCKET NO. 50-397

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I. INTRODUCTION

On February 25, 1983, during startup of the Salem Unit 1 plant, both circuit breakers in the Reactor Trip System failed to open automatically upon receipt of a valid trip signal. As a result of that event, the NRC's Office of Inspection and Enforcement issued IE Bulletin 83-01 which described the event and requested specified prompt corrective and preventive actions by licensees. As the cause and ramifications of the event were more clearly developed, the NRC's Office of Nuclear Reactor Regulation issued on July 8, 1983, Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." This letter addressed issues related to reactor trip system reliability and general management capability. The letter was sent to all licensees of operating reactors, applicants for operating licenses and holders of construction permits.

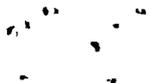
One of the areas of reactor trip system reliability considered in Generic Letter 83-28 (GL 83-28), is that of post-maintenance testing of reactor trip system components. This is identified in GL 83-28 as Items 3.1.1 and 3.1.2. This evaluation addresses the acceptability of the response to these items provided by the Washington Public Power Supply System (the licensee) for Washington Nuclear Plant No. 2 (the facility).

II. EVALUATION

Items 3.1.1 and 3.1.2 of GL 83-28 state as follows:

- "1. Licensees and applicants shall submit the results of their review of test and maintenance procedures and Technical Specifications to assure that post-maintenance operability testing of all safety-related components in the reactor trip system is required to be conducted and that the testing demonstrates that the equipment is capable of performing its safety functions before being returned to service.
- "2. Licensees and applicants shall submit the results of their check of vendor and engineering recommendations to ensure that any appropriate test guidance is included in the test and maintenance procedures or Technical Specifications, where required."





By letter dated November 18, 1983, the licensee responded to a number of GL 83-28 items, including Items 3.1.1 and 3.1.2. In response to questions raised by the staff, additional information was provided by letters dated July 3 and October 7, 1985.

Regarding Item 3.1.1, the November 18, 1983 submittal states the licensee has reviewed facility procedures "...relevant to testing and maintenance of safety-related components, including those in the reactor trip system." Based on the results of this review, the licensee states post-maintenance operability testing is required to be performed before a component or system is declared Operable. The licensee adds such testing is designed to demonstrate the equipment is capable of performing its intended safety functions.

The licensee states test requirements are implemented through a Maintenance Work Request procedure. According to the licensee, at the conclusion of any maintenance, modification or addition to any systems or components which are safety-related, and before any such system is declared operable, an Operability Check Sheet (OCS) is prepared. This form requires the time and date of the test be indicated and initialed by the person performing the test. After successful completion of the test(s), the OCS must be signed by the Shift Manager before the system can be declared operable.

Regarding Item 3.1.2, the licensee's letter of October 7, 1985, indicates the review of vendor and engineering recommendations called for by this item was not necessary for this facility. This is because the facility was engaged in the initial start-up program at the time Generic Letter 83-28 was issued (July 8, 1983). Thus, maintenance, operating and test procedures being developed at that time were based on current vendor manuals and recommendations, and updating was not required. In addition, procedure development included NSSS vendor review and acceptance of the procedures within the NSSS, scope of work.

The licensee states that subsequent to completion of the Power Ascension Test Program, a process was developed to ensure procedures continued to reflect the latest information concerning component and system operation. This process includes review, on a two year cycle, of each procedure used to verify post-maintenance operability. The review includes verification that vendor, engineering and industry practice recommendations have been considered for incorporation in the procedure, as applicable. The licensee states this two-year review is complemented by the regular review process established to evaluate vendor and industry information as it is received.

CONCLUSIONS

Based on the licensee's review of maintenance and test procedures for safety-related equipment, the determination these procedures require post-maintenance testing, and the licensee's statement that such testing is designed to demonstrate the capability of the equipment to perform its intended safety function, we conclude the licensee has satisfactorily completed the actions requested by Item 3.1.1 of Generic Letter 83-28.

Based on the licensee's development of maintenance, operating and test procedures in the same time frame as the issuance of Generic Letter 83-28, and based on the NSSS vendor's direct involvement in this process, we conclude the review requested by this item was effectively completed and corrective action implemented as necessary, during procedure development. Accordingly, we conclude the actions taken by the licensee are equivalent to those requested by Item 3.1.2 of Generic Letter 83-28, and that this item has been satisfactorily completed.

Principal Reviewer:

G. Zwetzig, Region V