



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 WASHINGTON, D. C. 20555

SAFETY EVALUATION
MILLSTONE NUCLEAR POWER STATION, UNIT 2
OVERRIDE OF CONTAINMENT PURGE ISOLATION AND
OTHER ENGINEERED SAFETY FEATURE ACTUATION SIGNALS
DOCKET NO. 50-336

INTRODUCTION

As a result of Abnormal Occurrence #78-5, the NRC issued a generic letter on Containment Purging During Normal Plant Operation, dated November 28, 1978, requesting each licensee to take certain actions. NNECO responded to this letter on January 3 and April 27, 1979 and January 16, 1980.

DISCUSSION AND EVALUATION

The attached interim report was prepared for NRC by EG&G Idaho under contract as part of our technical assistance program. This report provides a technical evaluation of the electrical, instrumentation and control design aspects of the override of containment purge valves isolation and other engineered safety feature actuation signals and is based upon review of the design aspects against the six staff review criteria provided for the review. The isolation valves for venting and purging satisfy the staff review criteria cited above, with two exceptions. The exceptions are that the bypassing of the radiation monitors that initiate containment ventilation isolation (CVI) is not alarmed and that the containment ventilation isolation control switches and the main steamline isolation reset push-buttons are not covered.

CONCLUSION

Based upon our review of the attached technical evaluation report (TER), we conclude that the electrical, instrumentation and control design aspects of the override of containment purge valve isolation and other engineered safety features actuation signals are acceptable.

The staff's basis for not accepting the contractor's recommendations with regard to alarming the bypass of radiation monitors and protective covers are as follows:

• Alarm the Bypassing of Radiation Monitors

Section 2.3, Guidelines 2 and 3 of the TER describes the design and operation of the CVI system. However, a slight misunderstanding existed in how this system functions. The only CVI valves that receive a closure signal from any radiation type detector are the containment purge (CP) valves. The abnormal occurrence was blocking the containment isolation actuation signal (CIAS) as explained in Section 2.2 of the TER. As a corrective measure to prevent recurrence, we required and NNECO complied with removal of the CIAS auto closure and keeping the 42-inch purge valves closed in Modes 1, 2, 3 and 4. With the CIAS physically removed, the only remaining signal that causes auto CP valve closure in Modes 5 and 6

is high radiation. As explained in NNECO's letter of January 16, 1980, there is now no other signal that can override the radiation signal to prevent auto CV closure. Therefore, we find the Millstone-2 system acceptable.

● Protective Covers

Section 2.4, Guideline 2 of the TER presents the problem of unprotected momentary contact with the pushbuttons which block the SIAS if pressurizer pressure is less than 1735 psig. We find that the protection covers are not necessary because the circuit automatically removes the blocking signal at 1735 psig. In a like manner, the main steamline isolation valves are unblocked automatically when 585 psig secondary pressure is reached.

This issue is, therefore, resolved for Millstone-2.

Attachment: TER