UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
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NUCLEAR INCIDENT AT THREE MILE ISLAND

Description of Circumstances:

On March 28, 1979 the Three Mile Island Nuclear Power Plant, Unit 2 experienced core damage which resulted from a series of events which were initiated by a loss of feedwater transient. Several aspects of the incident may have general applicability in addition to apparent generic applicability at operating Babcock and Wilcox reactors. This bulletin is provided to inform you of the nuclear incident and to request certain actions.

Actions To Be Taken By Licensees

(Although the specific causes have not been determined for individual sequences in the Three Mile Island event, some of the following may have contributed.)

For all Babcock and Wilcox pressurized water reactor facilities with an operating:

1. Review the description (Enclosure 1) of the initiating events and subsequent course of the incident. Also review the evaluation by the NRC staff of a postulated severe feedwater transient related to Babcock and Wilcox PWRs as described in Enclosure 2.

   These reviews should be directed at assessing the adequacy of your reactor systems to safely sustain cooldown transients such as these.

2. Review any transients of a similar nature which have occurred at your facility and determine whether any significant deviations from expected performance occurred. If any significant deviations are found, provide the details and an analysis of the significance and any corrective actions taken. This material may be identified by reference if previously submitted to the NRC.

3. Review the actions required by your operating procedures for coping with transients. The items that should be addressed include:

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a. Recognition of the possibility of forming voids in the primary coolant system large enough to compromise the core cooling capability.

b. Operator action required to prevent the formation of such voids.

c. Operator action required to ensure continued core cooling in the event that such voids are formed.

4. Review the actions requested by the operating procedures and the training instruction to assure that operators do not override automatic actions of engineered safety feature without sufficient cause for doing so.

5. Review all safety related valve positions and positioning requirements to assure that engineered safety feature and related equipment such as the auxiliary feedwater system, can perform their intended functions. Also review related procedures, such as those for maintenance and testing, to assure that such valves ar e returned to their correct positions following necessary manipulations.

6. Review your operating modes and procedures for all systems designed to transfer potentially radioactive gases and liquid out of the containment to assure that undesired pumping of radioactive liquids and gases will not occur inadvertently.

   In particular assure that such an occurrence would not be caused by the resetting of engineered safety features instrumentation. List all such systems and indicate:

   a. Whether interlocks exist to prevent transfer when high radiation indication exists and,

   b. Whether such systems are isolated by the containment isolation signal.

7. Review your prompt reporting procedures for NRC notification to assure very early notification of serious events.

The detailed results of these reviews shall be submitted within ten (10) days of the receipt of this Bulletin.

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