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**UNITED STATES**
**NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

December 2, 1998

The Honorable Joseph I. Lieberman
United States Senate
Washington, DC 20510-0703

Dear Senator Lieberman:

I am responding to your staff's request for information concerning the safety implications of two recent manual reactor trips at Millstone Unit 3, and what actions the NRC took or plans to take. To more fully address your staff's concerns, I will also discuss a third reactor trip that occurred subsequent to your request.

On September 15, 1998, operators manually tripped the reactor from 100% power when high conductivity was detected in the condensate system. Operators followed their abnormal operating procedure (AOP) for a condenser tube leak, and manually tripped the reactor. Northeast Nuclear Energy Company (NNECO) later determined that the high conductivity was caused by saltwater intrusion into a leg of the steam generator blowdown system. The saltwater intrusion was caused by a faulty sequence of procedure steps performed to isolate the blowdown system. In order to prevent a recurrence, NNECO revised the procedure used to remove and restore the blowdown system from service.

On October 28, 1998, operators again manually tripped the reactor from 100% power in accordance with the AOP, due to high conductivity in the condensate system. This time NNECO found a leaking condenser tube. Prior to restarting the reactor following the second event, the leaking condenser tube was repaired and the AOP was revised to allow operators greater flexibility to determine the extent of the saltwater intrusion before tripping the plant.

In both of the above events, the NRC resident inspector responded to the control room and verified that the operator actions taken were in accordance with procedures, all systems functioned as designed, and that the plant was in a stable condition.

On November 11, 1998, operators manually tripped the reactor from 90% power because of reduced condenser vacuum. In response to a storm in the area, operators were attempting to backwash the condenser to prevent seaweed fouling. During this evolution, which required turning off one condenser circulating pump, a second pump automatically shutdown because of the seaweed fouling. Because the backwash efforts were not effective, and the loss of two pumps could reduce condenser vacuum, operators manually tripped the plant in accordance with procedures for a degraded condition in the power conversion system. The NRC resident inspector was notified and briefed on the event. Following the event, the resident inspector observed licensee evaluation of the event, evaluated corrective actions, and determined that all systems operated as expected. In addition, the inspector verified that the water level in the intake structure did not go below a level that challenged the operability of the safety-related service water pumps.

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NNECO determined that inadequate planning for the storm condition contributed to the event. Relevant procedures were changed to ensure that key members of the organization are aware of weather conditions earlier, to effect more timely response and preparation for storms.

While there is some risk associated with any reactor transient, whether it is initiated by automatic reactor protective devices or manually by plant personnel, we have determined that the overall risk significance of these three plant shutdowns was low. Actions taken by plant operators during these three events protected the Millstone Unit 3 power conversion system, which in addition to being the system which supports electrical generation, is also the normal system used to remove heat from the reactor core. The power conversion system components used to remove decay heat functioned properly, and, as a result, the nuclear safety-related systems designed to mitigate an accident were not challenged and remained in a stand-by status. No radiological releases occurred, and the health and safety of the public was not threatened.

Sincerely,

William D. Travers
Executive Director
for Operations

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