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NRC DIRECTS WESTINGHOUSE REACTOR OWNERS TO CONSIDER  
POSSIBLE CONTROL ROD SYSTEM FAILURES

The Nuclear Regulatory Commission staff has sent a "Generic Letter" regarding a control rod system failure to utilities licensed to operate all pressurized water reactors manufactured by Westinghouse Electric Corporation, with one exception.

The exception is the Haddam Neck nuclear power plant, near Meriden, Connecticut, owned by Connecticut Yankee Atomic Power Company which uses a control rod system of a different design than the systems used in all other Westinghouse facilities.

The purpose of the letter is to determine if these facilities are susceptible to a single failure vulnerability in the control rod system that could lead to inadvertent withdrawal of control rods.

The "Generic Letter" is the result of a May 27 event at Unit 2 of the Salem nuclear power plant located in New Jersey a few miles from Wilmington, Delaware, and owned by Public Service Electric and Gas Company of New Jersey.

When an operator attempted to withdraw a certain bank of control rods, instruments indicated that the control rods were not being withdrawn. However, when the operator abandoned his attempt to withdraw the rod bank and changed the demand signal to "insert", the instruments showed that one rod had withdrawn a small amount.

Following that event, the NRC staff dispatched an Augmented Inspection Team to the Salem site to evaluate the issue and observe the licensee's independent investigation of the event. Public Service Electric and Gas postulates that the event was caused by the failure of one integrated circuit on a decoder card. As a result, the rod control system periodically sent simultaneous pulses to certain mechanisms in the system creating conditions where individual rods would either remain in place or withdraw from the core when a rod insert demand occurred.

The staff believes that the safety significance of the Salem event is not high because all automatic safety systems would still function as designed if needed. Further, should a rod control system failure occur, not all rod movements would lead to conditions where fuel damage might occur. And, in the worst case, only a small percentage of the fuel rods would be damaged. However, the staff does believe that compliance of these facilities with their plant-specific licensing basis is in question.

Accordingly, the "Generic Letter" requires plant owners to:

-- within 45 days, provide an assessment of whether or not the licensing basis for each facility is still satisfied with regard to system response to a single failure in the control rod system;

-- if not, provide an assessment of the effect of single failures and describe any compensatory short-term actions that will be taken to address actual or potential degraded or nonconforming conditions--such as

1) additional cautions or modifications to surveillance and preventive maintenance procedures, 2) additional administrative controls for plant startup and power operation and 3) additional instructions and training to heighten operator awareness of potential failures and to guide operator response in the event of a control rod system malfunction; and

-- if the assessment indicates that the licensing basis is not satisfied, provide, within 90 days, a plan and schedule for the long term resolution of the issue.

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