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NRC STAFF PROPOSES TO FINE PSE&G \$500,000 FOR ALLEGED VIOLATIONS AT SALEM NUCLEAR POWER PLANT

The Nuclear Regulatory Commission staff has cited Public Service Electric and Gas Company (PSE&G) for six alleged violations of NRC requirements in connection with the April 7 Alert at its Salem Unit 1 nuclear plant in Lower Alloways Creek, New Jersey. The staff has proposed a \$500,000 fine for four of the alleged violations.

On April 7, marsh grass clogged the travelling screens of the circulating water system's intake structure, which led to a trip of the circulating water pumps. Although the control room operating staff began to reduce power to cope with the transient, the Senior Nuclear Shift Supervisor (SNSS) lost command and control focus when he personally tried to restart a circulating water pump that had tripped. That activity was not authorized by procedure and required him to leave the control room during a critical stage of the transient. In addition, while the SNSS was involved with trying to restart the pump, the Nuclear Shift Supervisor, who was in charge at the time, also lost his command and control focus for a short period when he became directly involved in the withdrawal of control rods for the purpose of recovering reactor coolant temperature from an overcooling condition.

The reactor tripped when power was increased above 25 percent. The reactor and turbine trip caused the turbine stop valves to close, which caused a pressure wave in the main steam piping, which, coupled with low reactor coolant temperature at the time, caused an automatic actuation of the safety injection system, which then caused the pressurizer to fill solid with water. Although the reactor coolant temperature and steam generator pressure both increased to a point where the atmospheric relief valves should have opened, the valves did not. And, as a result, the steam generator code safety valve opened, leading to a rapid decrease in reactor temperature and pressure, which initiated another safety injection. This safety injection, with an already solid pressurizer, required the pressurizer power operated relief valves to cycle numerous times and led to the eventual rupture of the pressurizer relief tank rupture disks.

The NRC sent an Augmented Inspection Team to review the circumstances of the event. A staff review of the Team's report and a follow-up inspection on May 1 through June 25 found the six alleged violations of NRC requirements.

PSE&G was cited for failing to promptly identify significant conditions adverse to quality, determine the causes and take corrective actions to prevent recurrence. In June 1989, July 1993, and February 1994, the licensee did not promptly identify and correct the cause of spurious high steam flow signals that occurred during previous reactor/turbine trips. This spurious signal happened again during the April 7 event, leading to an unnecessary Safety Injection actuation.

The NRC also cited PSE&G for failing to revise the Final Safety Analysis Report (FSAR) after making modifications to the design, construction and operation of system within the plant. In this case, the licensee modified the controller for the steam generator pressure operated relief valves so that they would not open to the atmosphere under certain conditions without operator intervention. The changes were made without a complete safety evaluation being performed and without revising the FSAR.

PSE&G also was cited for failing to provide adequate training, guidance and procedures to the operators to cope with plant transients resulting from grass intrusion events, events which had previously occurred frequently at the Salem facility and which had caused serious safety system challenges and reactor trips.

The NRC has proposed a \$150,000 fine for each of these alleged violations, for a total of \$450,000. The fine for such violations is normally \$50,000 each. In this case the staff exercised enforcement discretion to increase the fines by \$100,000 each, to \$150,000 each, to further emphasize the importance that the NRC places on the need for each licensee to identify conditions adverse to quality, determine the root causes, and promptly put into place long-lasting corrective actions rather than tolerating degraded conditions and workarounds.

Salem's technical specifications require that the Senior Nuclear Shift Supervisor, or his designated replacement, be responsible for the control room command function. During the April 7 event, neither the Senior Nuclear Shift Supervisor nor the nuclear shift supervisor remained free to survey and analyze all operating parameters, and, for a short period of time, lost control and perspective of the overall operation. For this alleged violation, the NRC staff proposed a \$50,000 fine.

PSE&G also was cited, but not fined, for two additional alleged violations: failing to provide specified information about an event to the NRC within 60 minutes; and, failing to

establish measures to control the use of parts and components to ensure that incorrect parts are not used.

In a letter to PSE&G, James M. Taylor, NRC Executive Director for Operations, said, "Although the NRC found each of your immediate corrective actions to be acceptable, the NRC is unwilling to predict or assume success for your long-term actions because historically, the implementation of such actions for past problems has proven ineffective. While your actions are aimed at proximate causes, the NRC is not yet confident that lasting actions have been established that will prevent recurrence. Specifically, although senior management generally has established appropriate expectations for staff level performance, those expectations were neither clearly communicated to the staff, nor effectively reinforced by middle management and first line supervision. The NRC is particularly concerned because communications between senior station management and the staff have been deficient for some time, and the deficiencies have contributed to a number of prior events."

Mr. Taylor continued, "Simply stated, it appears that you have tolerated an atmosphere that accepts degraded conditions and resultant workarounds such as those that contributed to the event, rather than establish an atmosphere of a quality licensee environment."

PSE&G has 30 days either to pay the proposed fine or to request in writing that part or all of it be withdrawn. The company also has 30 days to admit or deny the alleged violations, to describe the actions it has taken or plans to take to prevent recurrence, and to give the date by which it expects to be in full compliance with NRC requirements.

The States of New Jersey and Delaware were informed of this enforcement action.