

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-I-01-038

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

**Facility**

PSEG Nuclear LLC  
Salem Unit 2  
Hancocks Bridge, NJ

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

Docket No.: 05000311  
License No.: DPR-75  
Event No. 38599

**SUBJECT: REACTOR TRIP AND SAFETY INJECTION**

On December 31, 2001, plant operators stabilized Salem Unit 2 in hot standby after an automatic reactor trip and safety injection caused by failure of a pressurizer spray valve. The trip occurred at 12:09 a.m., when the reactor reached the overtemperature delta T setpoint following the failure and opening of a pressurizer spray valve (PS-3) two minutes earlier. While the operators attempted to take manual control of the pressurizer spray valve controller and close the valve as directed by their abnormal operating procedures, the controller failed to respond. Due to the pressure drop caused by the failed-open pressurizer spray valve, a safety injection signal was generated about one minute later when pressurizer pressure dropped below 1,765 psig. All emergency equipment responded as required. The pressure reduction was terminated at 1,725 psig when the reactor coolant pump supplying the affected pressurizer spray line was tripped and instrument air was isolated to the spray valve controller. Operators successfully terminated the injection per their procedures; pressurizer level reached the top of its indicating range, but the pressurizer did not go solid.

The unit is currently in Mode 3 at 540°F. PSEG initiated an event investigation team as well as a post-trip review to determine whether both the operators and plant equipment performed as expected. PSEG is currently working to troubleshoot and repair the cause of the pressurizer spray valve controller problem as well as to investigate and repair other minor equipment problems noted following the reactor trip.

The NRC resident inspectors responded to the event and observed control room activities. PSEG made initial notifications to the NRC, the resident inspectors and local township officials. The facts of this PN were verified with PSEG senior operations management.

The Region I Public Affairs Office is prepared to respond to media inquiries.

The States of New Jersey and Delaware have been informed.

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NAME	RSB1	ARB	NAS	RSB1 f/ADW*	
DATE	12/31/01	12/31/01	12/31/01	12/31/01	

\*ADW reviewed prior version