

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report: 50-387/83-20

Docket: 50-387

License: NPF-14

Licensee: Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Facility: Susquehanna Steam Electric Station, Unit 1

Inspection At: Salem Township, Pennsylvania

Inspection Conducted: July 26 - 29, 1983

Inspector: *E. C. McCabe, Jr.*
G. G. Rhoads, Senior Resident Inspector

8/2/83
Date

Approved by: *E. C. McCabe*
E. C. McCabe, Jr., Chief, Reactor Project
Section No. 1D, Division of Project
and Resident Program

8/23/83
Date

Inspection Summary:

Special safety inspection by the Senior Resident Inspector (10 hours) of the licensee identified event involving inoperability of one train of particulate and gaseous containment atmosphere monitors combined with failure to surveil the other monitoring train for operability and with no grab samples taken for backup analysis. This was a repetitive failure to perform Technical Specification prescribed surveillances and a management meeting was scheduled to discuss this matter further.

DETAILS

1. Persons Contacted

R. Doebler, Chemistry Supervisor
J. Graham, Staff Assistant
H. Keiser, Superintendent of Plant
R. Prego, Supervisor, Operations Quality Assurance

2. Event Reviewed

On July 12, 1983, the licensee reported that during the period from June 12, 1983, to July 11, 1983, one train of the particulate and gaseous containment atmosphere monitors was not functioning and the other train (which was operating) had not had a required 31 day channel functional test surveillance performed. Technical Specification 3.4.3.1 requires that one particulate and one gaseous radioactive monitoring channel be operable, along with two drywell floor drain sump level monitoring systems. With only two of the required channels operable, plant operation may continue for up to 30 days, provided grab samples are taken and analyzed one per 24 hours for gaseous and particulate activity. However, if grab samples are not taken, the Action Statement of Technical Specification requires the plant to be in Hot Shutdown in the next 12 hours and in Cold Shutdown in the next 24 hours.

The sequence of events is as follows as described in the LER submitted July 20, 1983, by the licensee:

Surveillance procedure SC-73-102 encompasses the 31-day functional testing of the particulate and gaseous channels in both the "A" and "B" Containment Radiation Monitors. On March 25, 1983, both monitors passed the testing. The testing was not performed during the month of April because the unit was shutdown when the surveillance came due. On May 12, 1983, the "A" monitor passed the testing. The "B" monitor was not tested due to its being out-of-service for work to correct problems which had arisen prior to May 12.

On June 17, 1983, surveillance testing was begun on the "B" monitor, which subsequently failed. The "A" monitor, which was in service and functioning properly, was not released for testing by the operator. Testing of the "B" monitor was attempted again on June 21, 1983, and the monitor again failed. The "A" monitor, still functioning, was not tested. During his review of surveillance test completions on July 11, 1983, the Chemistry Foreman discovered that the "A" monitor was overdue for its 31-day functional surveillance test. The testing was completed within approximately four hours of the discovery that it was needed, and the "A" monitor tested satisfactorily. Since the "A" monitor passed the functional testing on both May 12 and July 11, there is reason to conclude that it was operable during the suspected period and would have responded to a coolant leak. Also, the two drywell sump level monitoring systems were operable through the entire time period. (The most accurate measure of leakage).

3. Safety Significance

The drywell radiation monitors provide the operators with indication; they do not initiate an automatic safety function. Drywell floor drain sump monitoring is a better indication of small increases in primary system leakage to the drywell. Automatic safety system actuation for significant leakage is provided from containment pressure sensors and from primary system monitors. This occurrence technically involved inoperability of operator indication. Because the second train of drywell radiation monitoring proved operable when surveilled, the operators did have valid indication from the technically inoperable train throughout the period. The operators were aware of the inoperability of the non-functional train. Safety significance is consequently that associated with failure to perform required surveillances. This is a violation. (387/83-20-01)

4. Previous Surveillance Test Discrepancies

The licensee has had problems with completing Technical Specification surveillance test requirements. Such incidents, though decreasing in frequency, continue to occur. Licensee Event Reports (LER's) were made on 14 separate occasions since the operating license was issued on July 17, 1982, describing cases where surveillance procedures were inadequate, where required surveillances were not performed, or where Action Statement requirements were not fulfilled. The LER's are listed below:

- LER 82-15: Spray pond temperature and level checks required by Technical Specification 4.7.1.3 were not incorporated into Surveillance Procedures. (Operations)
- LER 82-11: The Mechanical Vacuum pump was in service while the turbine building vent monitoring system noble gas monitor was out of service. (Operations)
- LER 82-19: Entered Operations Condition 2 prior to completing required daily surveillances. (Operations)
- LER 82-38/LER 82-41: Required grab samples were terminated prior to declaring vent monitoring systems operable. (Chemistry)
- LER 82-42: Grab samples were not taken as required when RHR service water system monitor was out of service. (Chemistry)
- LER 82-67: Grab samples of Offgas Hydrogen were not taken as required when H₂ analyzer was out of service. (Chemistry)
- LER 82-68: Requirement for monitoring (CO₂ storage tank level not incorporated into surveillance procedure. (Operations)

- LER 82-70: Entered Operation Condition 2 prior to completing required surveillances. (Operations)
- LER 82-71: Channel functional test of Turbine Stop Valve not performed prior to exceeding 30% power due to procedural inadequacy. (Operations)
- LER 83-01: Grab sampling of Offgas Hydrogen was not performed as required. (Chemistry)
- LER 83-02: Monthly functional test of Main Steam Isolation Valve position switches not incorporated into surveillance procedure. (Operations)
- LER 83-39: Functional test of Rod Block Monitor and Recirculation flow units were not performed prior to startup as required. (I&C)

5. Exit Interview

On July 29, 1983, a meeting was held with H. Keiser to discuss the inspection and findings.

6. At no time during this inspection was written material provided to the licensee by the inspector.