

DESIGNATED ORIGINAL

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PHILADELPHIA ELECTRIC COMPANY
Peach Bottom Atomic Power Station
R.D. 1, Delta, Pennsylvania
17314

September 13, 1982

Mr. R. C. Haynes
Administrator
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUBJECT: REPORTABLE OCCURRENCE - PROMPT NOTIFICATION

Confirming S. R. Roberts' conversation with R. Blough, Region I,
United States Nuclear Regulatory Commission on 9/10/82.

Reference: Docket No. 50-277
Peach Bottom Unit 2
Technical Specification 3.7.A.2

Report No. 2-82-27/1P
Occurrence Date: 9/10/82

Identification of Occurrence:

On 9/10/82, investigation of a higher than normal oxygen content in the Unit 2 containment identified an open service air valve to the containment. This valve should be closed and locked during reactor operations.

Conditions Prior to Occurrence:

Unit 2 operating at full power

Apparent Cause of Occurrence:

During a Unit 2 planned maintenance outage, the service air to the containment was placed in service. This involved opening both the inner and outer locked closed isolation valves on this line. At the end of that planned maintenance outage, the unit was started up without returning these valves to the closed and locked position. Based on the primary containment integrity definition in paragraph of the technical specifications, primary containment integrity was therefore not established during reactor operation. Preliminary investigation has indicated that failure of Operations personnel to adhere to administrative requirements during the opening of these valves caused this occurrence.

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Analysis of Occurrence:

During the Unit 2 operational period from August 12 through September 1982, oxygen content in the primary containment was within technical specifications, but higher than normal. Purging requirements to maintain drywell pressure were also significantly less than normal. An investigation identified an isolable leak in the oxygen sampling system, and an open service air manual outer isolation valve. The service air system normally operates at 100 psig, and therefore provided a source of in-leakage of air to the containment through leaking individual service air connection valves in the drywell.

The line in question is provided with an outer isolation valve and a check valve prior to entering containment. Inside, the line has a second manual isolation valve as well as several valves where users of service air are normally connected. Since drywell pressure was maintained at 0.5 psig without frequent venting to control pressure in-leakage is believed to have been minimal. The service air system normally operates above even the maximum drywell pressure that would occur during a reactor transient. That pressure difference would prevent leakage from the drywell, provided there is electrical power to the air compressors, and the service air piping is intact. The check valve in this line inboard of the outer isolation valve, although not routinely tested, is an isolation boundary which also provides resistance to out-flow from the containment if the service air pressure was less than containment pressure due to a broken service air line outside containment. The inner closed service air valves would prevent out-leakage from containment, unless the service air piping within the drywell failed. Based on the remote probability of simultaneous high pressure transients in containment, release of fission products to containment, and a failure of both the air piping inside and outside containment, safety significance is considered minimal. Even in this event, the check valve in the line outside containment would restrict out-leakage.

Corrective Action:

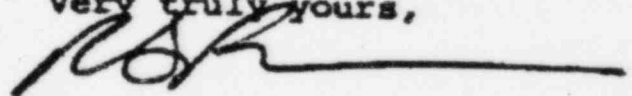
In order to determine the status of the inner isolation valve, a plant shutdown was initiated on 9/10/82. Containment entry was made, and the inner isolation valve which was found open, was closed and locked. The outer isolation valve was closed and locked shortly after it was identified as being opened. With primary containment re-established reactor startup was initiated.

Additional corrective action undertaken to this event is a repeat of the locked valve check-off list for Unit 2, as well as the start of in-depth investigation to determine cause and possible long term corrective actions.

Previous Occurrence:

None similar.

Very truly yours,



W. T. Ullrich
Station Superintendent