

PHILADELPHIA ELECTRIC COMPANY
Peach Bottom Atomic Power Station
Delta, Pennsylvania
17314

February 25, 1976

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
Region 1
United States Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

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Walt Baunack
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SUBJECT: REPORTABLE OCCURRENCE - PROMPT NOTIFICATION

Confirming R. S. Fleischmann's phone conversation with
Mr. Walt Baunack, Region 1, United States Nuclear Regulatory
Commission on February 25, 1976. *I & E*

Reference: Docket Number 050-277
Unit No. 2
Technical Specification Reference: 3.8.C.1
Report No.: 2-76-12/1P
Occurrence Date: February 25, 1976

Identification of Occurrence:

Exceeded Technical Specification 3.8.C.1 - Allowable Gross
Activity (Gaseous) release rate for a short period of time.

Conditions Prior to Occurrence:

Unit 2 at 100% power and Unit 3 at 60%. Plant gaseous release
rate about 9.7% of Technical Specification allowable.

Description of Occurrence:

At 9:40 a.m. on 2/25/76 the Unit 2 roof vent radiation monitors spiked
upward. It was estimated quickly that it could have exceeded
Technical Specification limits.

Apparent Cause of Occurrence:

At 8:50 a.m. on 2/25/76 the 2A RWCU filter demineralizer was
removed from service to be backwashed and precoat. The back-
wash was started at about 9:40 a.m. The vessel was left bottled.
This 50 minute hold apparently allowed some of the iodine absorbed
on the powdrex resin to decay to Xenon. When the RWCU vessel was
backwashed, the Xenon gases which had buildup in the
vessel were released to the backwash receiving tank. The backwash
receiving tank is vented to the ventilation system through a
HEPA filter, which allowed the gases to be released from the unit
ventilation stack.

Analysis of Occurrence:

The Unit 2 roof vent monitor spiked at about 9:40 a.m. The peak
instantaneous release rate was calculated to be 2.35×10^4 $\mu\text{Ci}/\text{sec}$.
This release rate is about 3.9 times the Technical
Specification limit. The main stack and Unit 3 roof vent release
rates remained unchanged during the period that the 2 roof vent
release rate was high. In less than 10 minutes the calculated

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Unit 2 roof vent release rate was less than Technical Specification limits. The total length of time that the Unit 2 roof vent release rate was higher than normal was less than 55 minutes.

Initial analysis of the particulate filters and iodine cartridges indicated no significant increase in particulate or iodine release rates. An isotopic analysis was run on a gas sample obtained at the end of the release. It indicated only Xe^{135} and Xe^{133} . It was estimated that the activity released due to this spike was about 25 curies (based on Gross Radiation Roof Vent Monitor Readings).

The release calculations for roof vent releases contain an MPC of 3.3x10⁸ uCi/cc for a 10 minute old offgas mixture per Technical Specifications. However, in this case the most limiting MPC for the major activity would be 3x10⁷ uCi/cc. If the most limiting MPC of activity measured is used in the release calculations, the Technical Specification release limit is not exceeded.

Based on the above, the short-term length of the release and the fact that the major measured activity were noble gases, the effects from this release should be very minimal.

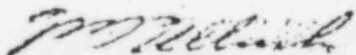
Corrective Actions:

The release was short term in nature; no immediate corrective action was possible. Further investigation will be made into the mechanism of release. The procedure for backwash and precoat of the reactor water cleanup filter demineralizers will be revised if improvements are found to decrease the gaseous release rates.

Failure Data:

2-16-11/IP

Very truly yours,



W. T. Ulrich, Superintendent
Peach Bottom Atomic Power Station