

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

June 22, 1979

Mr. Boyce H. Grier  
Office of Inspection and Enforcement  
Region I  
United States Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

SUBJECT: REPORTABLE OCCURRENCE - PROMPT NOTIFICATION

Confirming W. T. Ullrich's conversation with Mr. Gage, Region I,  
United States Nuclear Regulatory Commission on 6/21/79.

Reference: Docket No. 50-274  
Peach Bottom Unit 3  
Technical Specification Reference: 3.8.C1

Report No. 3-79-20/1P  
Occurrence Date: June 21, 1979

Identification of Occurrence:

On 6/21/79 at approximately 11:05 AM the Unit 3 reactor was removed from service due to the loss of the condenser vacuum recombiner system. Primary coolant pressure was reduced to approximately 500 psig while recovery operations were in progress. Startup check lists were completed and rod withdrawal was initiated. Repairs were made to the recombiner system.

At approximately 4:50 PM startup operations were initiated to establish condenser vacuum conditions in accordance with operational requirements. The startup vacuum pump was started at this time. At 4:55 PM the main off-gas stack radiation monitor started to show an increasing release rate. The startup vacuum pump was shutdown immediately. Main stack release however continued to increase. This release continued over approximately 50 minutes. The maximum release rate was approximately 106% of Technical Specification Limits. Technical Specification release limits were exceeded for less than 10 minutes during this transient. Simultaneously with this release the two reactor building roof vents were releasing at a value of approximately 11% of Technical Specification limits. The maximum site gaseous release rate was therefore approximately 117% of the Technical Specification limit. Preliminary estimates indicate that 1000 Ci of mixed noble gas were released during this event.

Apparent Cause of Occurrence:

Depressurization of the primary coolant following reactor shutdown introduced non-condensable gases with significant fission product inventories into the condenser. Transfer of this inventory to the main stack in accordance with normal startup procedures resulted in a gaseous release in excess of Tech. Spec. limits.

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Analysis of Occurrence:

The fission product gas transferred from the fuel elements to the condenser and then to the off-gas stack resulted in a release from the plant in excess of Tech. Spec. values. The release was terminated as soon as an increase in radiation levels at the off-gas stack monitor was identified. Plant personnel did not receive any radiation exposure dose because of this event. No environmental impact is anticipated. Safety significance is therefore minimal.

Corrective Action:

Following the initial high release rate, special provisions were made to provide dilution flow to the vacuum pump during the evacuation of the condenser air space. This eventually permitted establishing a condenser vacuum sufficient to permit return of the unit to service. No additional releases in excess of Tech. Spec. limits occurred during the condenser evacuation operation.

Previous Failures:

None similar.

Very truly yours,

*W. T. Ulrich*

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

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