



Technical Specification 2.4(a)

March 30, 2017

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Peach Bottom Atomic Power Station (PBAPS) Unit 1
Facility Operating License No. DPR-12
NRC Docket No. 50-171

Subject: PBAPS Unit 1 Decommissioning Status Report - 2016

In accordance with Peach Bottom Atomic Power Station, Unit 1 Technical Specifications, the annual report is required to:

- Describe the results of facility radiation surveys,
- Report the quantities of radioactive effluents released,
- Report the status of the facility and evaluate the performance of security and surveillance measures, and
- Provide containment vessel accumulated water analyses, as applicable.

Radiation Surveys:

Radiological surveys are performed semi-annually in the exclusion area. There were no significant concerns detected. All surveys were less than the required 1 mR/hr in accessible areas. Additionally, all smearable contamination levels were less than 1000 dpm/100cm² beta-gamma. The results of these surveys are available in the station records.

Quantities of Radioactive Effluents Released:

In 2016, there were no direct gaseous or liquid releases or discharges from Unit 1 to the environment. During the reporting period, a total of 238 gallons of water with low concentrations of Tritium were collected from Unit 1 and stored at Unit 2 and 3, for further processing. No gamma emitting nuclides were above detectable limits. No water was released which originated from Unit 1 during 2016.

Status of Facility and an Evaluation of the Performance of Security and Surveillance Measures:

There were no significant events involving Unit 1. All inspections were determined to be satisfactory with no major issues identified. The structural inspections performed in accessible areas showed no indication of significant corrosion, cracks, or structural integrity concerns.

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Previous years' inspections had noted a small amount of water in the Unit 1 Spent Fuel Pool (IR 1588453). No significant water was found in the Unit 1 Spent Fuel Pool floor during the Spring or Fall inspections in 2016.

The unit remains in the SAFSTOR status of decommissioning. All exclusion area barriers as described in the Technical Specifications are maintained locked except when opened to provide access and egress for inspections, surveys, or repairs. Exclusion area barriers have not degraded from previous reports.

Containment Vessel Accumulated Water Analyses:

Approximately 238 gallons of water, less than the 500 gallons Technical Specifications limit, accumulated in Peach Bottom Unit 1 Containment in 2016, all within the containment sump. The water contained tritium, while all gamma-emitting nuclide concentrations were below detectable levels. The average tritium concentration of the water collected in 2016 was $2.61\text{E-}03$ uCi/mL, with a maximum tritium concentration of $2.65\text{E-}03$ uCi/mL. The tritiated water was removed and transferred to Units 2 & 3 for future processing and release.

Monitoring wells for the Radioactive Groundwater Protection Program in the vicinity of Unit 1 remain at normal background levels. All tritium concentrations sampled and analyzed were below detectable level in wells MW-PB-8, MW-PB-10, MW-PB-14, MW-PB-15, and MW-PB-16.

There are no regulatory commitments contained in this letter. If you have any questions, please contact Ben Neufeld, Radwaste and Environmental Supervisor, at 717-456-4809.

Respectfully,



Matthew J. Herr
Plant Manager
Peach Bottom Atomic Power Station

cc: NRC Regional Administrator, Region I
NRC Senior Resident Inspector
R. R. Janati, Commonwealth of Pennsylvania

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