

March 30, 2016

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 - 2015

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 2015, there were no gaseous or liquid releases or discharges directly from Unit 1 to the environment. However, drums of tritiated water, collected from U1 between 2013 and 2015, were released through the B Laundry Drain Tank (B LDT) in accordance with the PBAPS Updated Final safety Analysis Report. A total volume of 424.6 gallons of water (83.3 gallons from 2015, 268.3 gallons from 2014, 73 gallons from 2013), with an average tritium concentration of 3.09E-03 µCi/mL, was released through the approved effluent pathway. The total tritium activity released was 4.97E+03 µCi. This activity produced a projected maximum dose to the child liver of 3.60E-06 mrem (9.0E-04% of the limit) and an adult total body dose of 2.59E-06 mrem (2.2E-03% of the limit).

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. No significant water was found in the Unit 1 Fuel Pool floor during the Spring or Fall inspection in 2015. The small amount noted in the previous year was judged to be from ground water seepage.

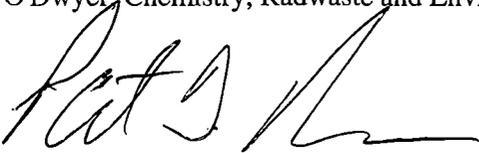
The unit remains in the SAFSTOR status of decommissioning. All exclusion area barriers as described in the Technical Specifications are maintained locked except when opened to provide access and egress for inspections, surveys, or repairs. Exclusion area barriers have not degraded from previous reports.

Containment Vessel Accumulated Water Analyses:

Approximately 117 gallons of water, less than the 500 gallons allowed by the Unit 1 Technical Specifications, accumulated in Peach Bottom Unit 1 Containment in 2015, all within the containment sump. The water contained tritium and all gamma-emitting nuclide concentrations were below detectable levels. The tritiated water was removed and transferred to Units 2 & 3 for processing and release.

Monitoring wells for the Radiological 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 these wells (MW-PB-8, MW-PB-10, MW-PB-14, MW-PB-15, MW-PB-16).

There are no regulatory commitments contained in this letter. If you have any questions, please contact Siobhan O'Dwyer, Chemistry, Radwaste and Environmental Manager, at 717-456-3047.



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cc: NRC Regional Administrator, Region I
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