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L-03-072

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

**Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Annual Radioactive Effluent Release Report for 2002**

- Reference: 1) FENOC; Beaver Valley Power Station Unit 1 and Unit 2 Technical Specification 6.9.3, Annual Radioactive Effluent Release Report
- 2) USNRC; Regulatory Guide 1.21 - Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants, Revision 1, June 1974
- 3) FENOC; BV-1 and 2 Offsite Dose Calculation Manual, 1/2-ODC-3.03 Report 6.9.3

The Annual Radioactive Effluent Release Report is hereby submitted for year 2002 for Beaver Valley Power Station (BVPS) Units 1 and 2 in accordance with the requirements of Reference (1). This report also contains the information required by References (2) and (3).

This report is considered a single submittal for the two unit site. This report combines those sections that are common to both units at the site. However, where the two units have separate radwaste systems, the report does specify the releases of radioactive material from each unit. In reference to this, Unit 1 and Unit 2 have shared radwaste systems for gaseous elevated releases and for liquid releases. The report format is summarized in the index.

The following is a summary of the liquid and gaseous effluent control program at BVPS during 2002:

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Beaver Valley Power Station, Unit No. 1 and No. 2
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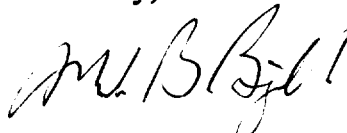
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- Unit 1 and 2 discharged $3.16E+6$ liters of liquid waste (undiluted volume). The total activity discharged from the site was 355 curies of tritium, and 0.147 curies of fission and activation products. The Unit 1 or 2 Total Body Dose for the year was 0.0104 mrem, or 0.345% of the 3 mrem per unit annual limit. The Unit 1 or 2 Highest Organ (GI-LII) Dose for the year was 0.0124 mrem, or 0.124% of the 10 mrem per unit annual limit.
- In 2002, a major project was completed to reduce silica content in the Coolant Recovery Tanks and the Boric Acid Hold Tank. In order to minimize the effects on liquid waste activity and offsite dose consequence, a Reverse-Osmosis skid was used to process and recycle the water. As a result, ~95% of the water (104,000 gallons containing 1,182 curies of tritium) was not discharged to the environment.
- Unit 1 and 2 discharged $1.17E+4$ cuft of stored gaseous radwaste. The total activity discharged from all site gaseous releases was 167 curies of tritium, and 25.6 curies of fission and activation gases. The Unit 1 or 2 Highest Gamma Air Dose for the year was 0.0081 mrad, or 0.0081% of the 10 mrad per unit annual limit. The Unit 1 or 2 Highest Beta Air Dose for the year was 0.063 mrad, or 0.31% of the 20 mrad per unit annual limit. The Unit 1 or 2 Highest Organ (Thyroid) Dose for the year was 1.18 mrem, or 7.85% of the 15 mrem per unit annual limit.
- There were no abnormal liquid releases during the report period.
- There were no abnormal gaseous releases during the report period.
- All Effluent Monitoring Instrumentation Channels were returned to OPERABLE status within 30 days during 2002.
- There were no ODCM Surveillance Deficiencies during 2002.

There are no regulatory commitments identified in this document. If there are any questions concerning this report, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement at 724-682-5284.

Sincerely,



Mark B. Bezilla

Enclosure

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United States Nuclear Regulatory Commission
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Beaver Valley Power Station

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