

Public Service  
Electric and Gas  
Company

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Vice President and Chief Nuclear Officer

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United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Gentlemen:

RADIOACTIVE EFFLUENT RELEASE REPORT - 5  
HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354

In accordance with Section 6.9.1.7 of Appendix A to the Operating License for Hope Creek Generating Station (HCGS), Public Service Electric and Gas Company (PSE&G) hereby transmits one copy of the semi-annual Radioactive Effluent Release Report, RERR-5. This report summarizes liquid and gaseous releases and solid waste shipments from the HCGS for the period January 1 through June 30, 1988.

Additionally, please find one copy of the revised Offsite Dose Calculation Manual (ODCM). A summary of the changes to the ODCM and their rationale is provided in Attachment A. Changes to the document are delineated by vertical lines in the margin of the text. The majority of these changes are administrative.

Should you have any questions regarding this transmittal, please feel free to contact us.

Sincerely,



Attachments

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ATTACHMENT A

HOPE CREEK OFFSITE DOSE CALCULATION MANUAL REVISION 9  
HIGHLIGHTS

- 1) **PAGE 3:** Corrected typo from 10 CFR 10 to 10 CFR 20
- 2) **PAGE 5:** Added the words .."at the monitor location (i.e., at the liquid radwaste monitor or at the CTBD monitor).

**RATIONALE:** Revised to clarify the use of the term RR (release rate) in equation 1.2 of the ODCM. This definition is as described in NUREG-0133.

- 3) **PAGE 6:** Changed the default MPC value for liquid releases from  $1.90E-5$  to  $4.19E-05$  uCi/ml.

**RATIONALE:** The previous default MPC was based on the predicted radionuclide mix for liquid effluents from the Hope Creek FSAR as there was no liquid release history. After a year of liquid releases the default MPC was recalculated based on actual release data.

- 4) **PAGE 11:** Changed the conversion factors in equations 1.7 and 1.8 from  $5.40E+01$  and  $1.26E+02$  to  $1.94E+02$  and  $4.28E+02$  mrem/hr per uCi/ml respectively.

**RATIONALE:** The previous default dose conversion factors for equation 1.7 and 1.8 were based predicted liquid effluent release data from Hope Creek FSAR Table 11.2-12. After a year of liquid releases the radionuclide with the largest dose fraction was recalculated, as demonstrated in Appendix B of the ODCM and the results incorporated in the equations.

- 5) **PAGE 39:** The calculated MPC was changed from  $1.90E-05$  to  $4.19E-05$  uCi/ml and the default alarm setpoints for monitor RE4861 (Liquid Radwaste) and RE8817 (Cooling Tower Blowdown) were changed from  $2.00E-03$  and  $1.90E-05$  to  $2.86E-03$  and  $4.19E-05$  uCi/ml respectively.

**RATIONALE:** The default alarm setpoints for the liquid radwaste monitors were changed due to the change in the default MPC.

ATTACHMENT A (CONT'D)

HOPE CREEK OFFSITE DOSE CALCULATION MANUAL REVISION 9  
HIGHLIGHTS

- 6) **PAGE A-4 and A-5:** Updated the radionuclide list in Table A-1 of the Appendix A from the FSAR Table 11.2-12 predicted releases to 1987 actual releases data.

**RATIONALE:** To reflect actual release data for calculating default alarm setpoints and default dose conversion factors.

- 7) **APPENDIX B:** Adjusted the technical basis for effective dose factors for liquid radioactive effluents to reflect actual release data from 1987. Previous basis used Hope Creek FSAR Table 11.2-12 predicted effluent release data.

- 8) **APPENDIX E:** 1) Changed the format of describing the sample locations, types and numbers for the Radiological Environmental Monitoring Program (REMP). Reprinted the REMP sample location maps. 2) Eliminated the listing of 2 milk sample locations and 2 air sample locations.

**RATIONALE:** 1) Revised for Clarity. 2) The 2 air sample locations (2S2 and 10D1) and the two milk sample locations (13E3 and 5F2) were excess sample points above and beyond Technical Specification 3/4.12.1 requirements. Based on an analysis of the cost for maintaining the sample points versus their benefit it was decided to delete the sample locations from the REMP. The number of sample locations are in compliance with the requirements of Technical Specification 3/4.12.1.