

William J. Cahill, Jr.
Vice President

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January 5, 1979
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-3
50-247

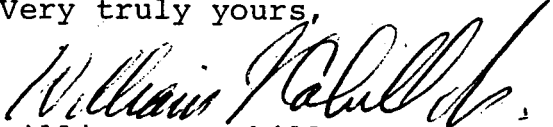
Director of Nuclear Reactor Regulation
Attn: Mr. A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

In accordance with discussions with members of the Meteorology and Hydrology Branch of the Regulatory Staff, Enclosure I contains information regarding effluent release points and release frequencies from the Indian Point site.

This information is submitted as an addendum to the 10 CFR 50 Appendix I compliance evaluation submitted by letter dated March 14, 1977.

Very truly yours,


William J. Cahill, Jr.
Vice President

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ENCLOSURE I

Indian Point Unit 1

Unit 1 releases occur through a vent duct positioned concentrically within the unit's superheater stack, which extends to a height of 390' above MSL. At the gas discharge point 10' above the stack height (el. 400) the vent duct has an internal diameter of 47.5". Plant grade is approximately 14' MSL and slopes upward to the east to approximately 120' MSL.

During operation of Unit 1, the exit temperature of the superheater flue gas is 410°F with an exit velocity of 66 feet/second. Gases discharged through the radiogas vent are entrained within the superheater exhaust and will therefore rise with the superheater gases.

The annual average ambient temperature in the area is approximately 50°F.

As discussed in NUREG-0017 "Calculation of Release of Radioactive Materials in Gaseous and Liquid Effluents from Pressurized Water Reactors" (PWR-GALE Code), pressure relieving of the Unit 1 containment is necessary for about one to two hours per month, with containment purges occurring only when shut/down. Since this unit has not operated since 1974, no recent operating data are available.

Indian Point Unit 2

Discharges of radioactive gas from Unit 2 are vented through a duct which is mounted on the external surface of the containment building. This exhaust duct, which measures about seven feet by four feet, terminates on the top of the containment and discharges horizontally.

In the vent mode of operation volumetric flow is some 96,300 CFM at a temperature of approximately 70°F. Under a purging condition this flow is increased by about 40,000 CFM.

The containment structure is cylindrical (144'diameter) from the base to 156 feet above grade, then the structure becomes spherical for the remaining 71 feet. The top of containment is 262' MSL.

Review of plant operating data for this unit indicates that these data are consistent with the statement in NUREG-0017 that venting of the containment is necessary twice a day for approximately one to two hours.