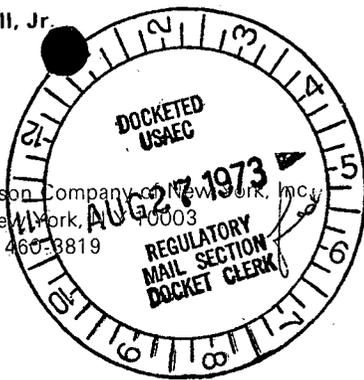


William J. Cahill, Jr.  
Vice President

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4 Irving Place, New York, N.Y. 10003  
Telephone (212) 460-8819



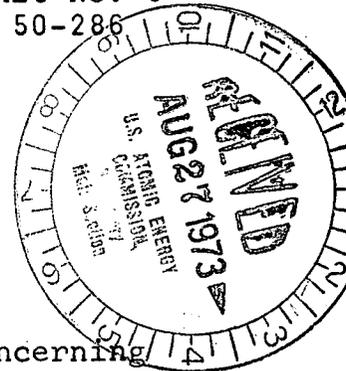
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August 21, 1973

Re: Indian Point Unit No. 3  
AEC Docket No. 50-286

George W. Knighton, Chief  
Environmental Projects Branch No. 1  
Directorate of Licensing  
U. S. Atomic Energy Commission  
Washington, D. C. 20545



Dear Mr. Knighton:

Your letter dated July 17, 1973 requested information concerning the radioactive waste treatment system and the radioiodine monitoring systems for Indian Point Unit No. 3. This subject was discussed at a meeting with the Regulatory Staff on April 23, 1973.

The steam generator blowdown intertie to the Unit No. 1 Secondary Boiler Blowdown Purification System (SBBPS) and the charcoal adsorbers in the containment vent are being provided for Indian Point Unit No. 2 on Con Edison's initiative to help minimize plant liquid and gaseous radioactive releases to the environment. This commitment was made after the Regulatory Staff has concluded its review of that application. Con Edison again, on its own initiative, decided to incorporate these features into the Indian Point Unit No. 3 plant. The earliest these systems were considered to be available was prior to the end of the first Indian Point Unit No. 2 refueling outage. The design and construction of these features for Indian Point Unit No. 3 have been, therefore, proceeding along the same schedule intended for Indian Point Unit No. 2. Since the decision to provide these features for Indian Point Unit No. 3 was made subsequent to the Indian Point Unit No. 2 commitment, it is impractical from a scheduling aspect to require that these items be available on Indian Point Unit No. 3 prior to the Spring of 1975 (scheduled refueling outage for Indian Point Unit No. 2).

No commitment was made at the April 23, 1973 meeting to modify the steam generator blowdown intertie system. As pointed out in that meeting, it is not true that there is a lack of full-time capability of continuous treatment of the Unit No. 3 steam generator blowdown through the Unit No. 1 SBBPS. The SBBPS is designed to treat 132 gpm of blowdown simultaneously from all three units. Steam generator blowdown will be diverted to the SBBPS whenever the blowdown activity is  $3 \times 10^{-5}$   $\mu\text{Ci/cc}$  or greater regardless of the operability of Unit No. 1. Operating at this setpoint activity level, the maximum annual release when the Indian Point Unit No. 1 SBBPS is not used would be about one curie of total mixed activity in liquid blowdown effluent and 0.04 curies of I-131 from the

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George W. Knighton  
Atomic Energy Commission

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August 21, 1973

Re: Indian Point Unit No. 3  
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Indian Point Unit No. 3 Blowdown Flash Tank (BFT) vent. In reality, the annual gaseous releases from the Indian Point Unit No. 3 BFT vent would be less since it is not likely that the plant would operate at the setpoint level all year. At activities greater than the setpoint level, releases from the Indian Point Unit No. 3 BFT would be zero since no blowdown would be directed to the Indian Point Unit No. 3 BFT. The gaseous iodine release could yield at the site boundary a thyroid dose of 0.35 mr/yr and I-131 concentrations of approximately  $3.2 \times 10^{-14}$   $\mu\text{Ci/cc}$ . The nearest cow to the site (7 miles SSW) would see I-131 concentrations of approximately  $1.2 \times 10^{-16}$   $\mu\text{Ci/cc}$ . These values are well below 10% of the levels specified in Regulatory Guide 1.42 and, therefore, treatment and monitoring of the Indian Point Unit No. 3 BFT vent is not considered necessary.

When the steam generator blowdown activity is greater than  $3 \times 10^{-5}$   $\mu\text{Ci/cc}$ , the blowdown will be processed by the Indian Point Unit No. 1 SBBPS. Based on 0.25% failed fuel, a 20 gpd steam generator tube leakage rate, 20 gpm continuous total blowdown from all four steam generators and a service factor of 0.67 for Indian Point Unit No. 1, the gaseous I-131 release from the Indian Point Unit No. 1 BFT vent when Unit No. 1 is off-line is estimated to be 0.17 curies per year. A ground level iodine release of 0.17 Ci/yr would result in a thyroid dose of only 33% of the "as low as practicable" guideline's dose of 15 mr/yr via the grass-cow-milk-child pathway. Since this conservatively predicted release is well within the proposed "as low as practicable" guidelines, it is not necessary to provide treatment on this potential release path. Levels of I-131 which could be released via the Indian Point Unit No. 1 BFT vent will be monitored periodically during primary to secondary leakage by sampling steam generator blowdown upstream and downstream of the BFT prior to the SBBPS. Partition factors will be determined and iodine releases via the Unit No. 1 BFT vent will be calculated, when the BFT is vented directly to atmosphere. When Indian Point Unit No. 1 is operating, the steam release from the BFT is routed to its main condenser.

An iodine sampler has been installed in the Indian Point Unit No. 2 plant vent. A similar device will be provided for Indian Point Unit No. 3 prior to startup. This monitor continuously samples for radioiodine and the samples will be analyzed weekly.

All other potential release paths for I-131 such as the turbine hall, the condenser air ejector and any vents on outdoor tanks yield only insignificant releases of activity, and, therefore,

George W. Knighton

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August 21, 1973

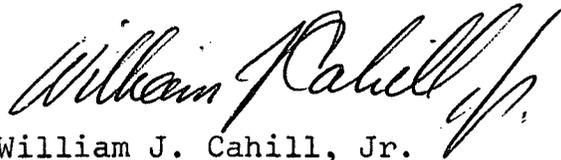
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monitoring is not considered necessary to insure that they are "as low as practicable".

The present Indian Point Unit No. 3 radioiodine monitoring system design complies with Safety Guide 21.

The comments and recommendations contained in Enclosure 3 of your letter regarding the radiological monitoring program in the environs will be addressed in the proposed Environmental Technical Specifications for Indian Point Unit No. 3. This document will have the same format as Appendix B to the Indian Point Unit No. 2 Technical Specifications and will cover all three units at the site. It is expected that this document will be available by mid-November.

Very truly yours,



William J. Cahill, Jr.  
Vice President

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