William J. Cahill, Jr.
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50-247
78-023

REGULATORY DOCKET FILE COPY

August 28, 1978

RE: Indian Point Units 1,2&3
Docket Nos. 50-3,50-247 &
50-286
LER-78-023/04T-0

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA. 19406

Dear Mr. Grier

The attached Licensee Event Report LER-78-023/04T-0, "Anomalous Measurement Report", is hereby submitted in accordance with the requirements of Section 5.6.2.2 of the Environmental Technical Specification Requirements (ETSR). The event is of the type described in ETSR Section 5.6.2.2.a. An in depth report on this event is included as an attachment to this LER.

Three copies of this letter and attachment are enclosed as required.

Very truly yours

William J. Cahill, Jr.

attachment
enc.

CC: Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
c/o Distribution Services Branch, DDC,ADM
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

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CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

INDIAN POINT NOS. 1, 2 & 3

DOCKET NOS. 50-3, 50-247 & 50-286

Attachment to LER 78-023/04T-0

This report of an anomalous measurement at one of our environmental sampling locations in the vicinity of Indian Point Station is being made as a followup to the telephone report Mr. Steven Masciulli gave to your Dr. Robert Bores on August 21, 1978. The Environmental Technical Specification Requirements (ETSR), for Indian Point Nos. 1, 2 & 3, Section 5.6.2.2 requires, in part, that if a confirmed measured level of radioactivity in any environmental medium exceeds ten times the control station value, a written report be submitted within 10 days. In the event a control station does not exist for a particular medium, "historical" levels for the particular location can be used in place of control station values. Our procedure, NEM-A-07, "Notification, Investigation, and Reporting of Abnormal Activity in Environmental Samples", defines such "historical" values for various media and also lists the action levels where NRC notification is required.

Teledyne Isotopes, our contracting laboratory, reported Cs-137 activity in a sample of Hudson River aquatic vegetation from Lovett, which is located approximately 1.5 miles WSW of Indian Point, exceeded ten times "historical" levels. The sample which was collected on June 29, 1978, was found to contain $1.20 \pm 0.12 \times 10^{-3}$ uCi/g of Cs-137 as determined by germanium-lithium, Ge(Li), analysis. The sample, myriophyllum verticillatum, was reanalyzed by Teledyne Isotopes on August 18, 1978, as requested by Con Edison. The reanalysis was performed on a new aliquot taken from the original sample and indicated $1.32 \pm 0.13 \times 10^{-3}$ uCi/g of Cs-137, thus, confirming the original result.

An investigation which included a review of present and past sample analyses and plant effluent releases, was then initiated to determine the cause of this anomalous measurement. Plant releases during the first half of this year were consistent with those which have been observed in the past and exhibited no abnormalities which could account for the anomalous measurement. A review of aquatic vegetation analysis for the ;ast few years show Cs-137 activity consistently at the 10^{-7} to 10^{-8} uCi/g level, when it was detected, with no increasing trends noted. Also, other samples of aquatic vegetation taken on the same day at Lovett and two other Hudson River locations all indicated Cs-137 activity levels in the 10^{-7} to 10^{-8} uCi/g range.

The review of plant releases and sample analysis revealed that the anomalous measurement is inconsistent with past and present analyses and it is not readily attributable to plant operations. This is further evidenced by the fact that there were no other positive nuclide identifications on the sample in question. If the 10^{-3} uCi/g level of Cs-137 was due to plant releases, it is expected that other nuclides, which are released in similar quantities, would appear in the sample in similar or at least detectable concentrations. Since these nuclides were not detected, the anomalous measurement may be due to sample contamination rather than plant operations.

The history of the sample after collection on June 29, 1978, was then investigated to determine the likelihood of contamination. After collection, the aquatic vegetation samples were sealed into thick walled plastic bags and stores in the environmental laboratory until transferal to Teledyne Isotopes on July 6, 1978, with other samples collected during the same period. A review of these other samples revealed that a laboratory spiked water sample was included in the group, however, it was spiked to the 10^{-8} uCi/ml level with a mixture of nuclides so it is not likely to have caused the anomalous measurement. This group of samples was picked up on July 6, 1978, by a Teledyne Isotopes truck for routine transfer to their facility. Enroute to their facility, several of the bags of aquatic vegetation split open, allowing the samples to spill out and come in contact with the containers of other samples and the bed of the truck, which is routinely used for this purpose. Upon arrival at Teledyne Isotopes, all aquatic vegetation samples were transferred to containers which they had available to alleviate the problem.

From the above discussion, we conclude that the sample was contaminated at some time after collection and before analysis, thus, explaining the inconsistencies in the analytical data and the anomalous measurement itself. As such, the anomalous measurement represents no environmental impact. Future samples of aquatic vegetation will be packaged in sturdier containers to reduce the possibility of a recurrence of this type of event. Finally, aquatic vegetation at Lovett and other areas is being resampled to back up the findings of this report and to insure that there has been no environmental release.