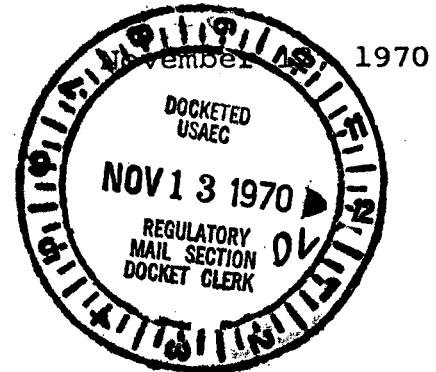


Regulatory

File Cy.

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

Mr. Peter A. Morris, Director
Division of Reactor Licensing
Atomic Energy Commission
Washington, D. C. 20545



Re: Environmental Report for Indian Point 2
Docket No. 50-247

Dear Mr. Morris:

The Consolidated Edison Company of New York, Inc. (Con Edison) would like to furnish you with the following comments in response to the letters from Federal agencies enclosed with your letter to me dated October 27, 1970.

1. Department of Housing and Urban Development

Con Edison welcomes the view expressed by the Department of Housing and Urban Development that the electrical needs of the New York Metropolitan area should not be met with only fossil-fuel generating plants.

HUD expressed concern about the proximity of the plant to populated areas and said that this matter "should be discussed carefully before the license is approved." Again, we agree that this matter should be discussed and assure HUD that this has been done at the time of the issuance of construction permits. Development of the Indian Point site for nuclear power was based on a conclusion reached by Con Edison, and approved by the Atomic Energy Commission and its Advisory Committee on Reactor Safeguards, that nuclear power plants can be built at this site without undue risk to the health and safety of the public. This conclusion has been confirmed by three Atomic Safety and Licensing Boards in connection with the issuance of the construction permits for Indian Point 1, 2 and 3 after public hearings, the last of which was contested.

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The ecological studies referred to by HUD are continuing, and Con Edison has not yet received final reports. Con Edison is keeping the cognizant Federal and State agencies advised of progress on these reports.

We agree with HUD's comment that coordination with local planning bodies is desirable. Con Edison cooperated closely in planning with the Village of Buchanan, which has favored the construction of the plant. The Westchester County Planning Board, the appropriate County agency, has been consulted and kept advised of the developments at the site.

The Hudson River Valley Commission was not in existence at the time of commencement of the construction of Indian Point 2. It has been kept advised of developments with respect to Indian Point 3.

The Tri-State Transportation Commission has not been consulted. It is our understanding that this commission is concerned with the transportation problems of New York, New Jersey and Connecticut and has not been involved with utility planning.

2. Department of Defense

The Department of Defense requested additional information on the environmental monitoring program. The present program, together with sampling frequency, is set forth in the table annexed hereto as Appendix A. The sampling frequency will be increased with the initial operation of Indian Point 2, as described in the environmental monitoring survey annexed hereto as Appendix B. We also call your attention to the maps annexed as Appendices C and D which indicate environmental sampling sites.

The Department of Defense inquired about emissions from service boilers. Indian Point 2 will have two "package boilers" with steaming rates of 50,000 pounds/hour each, to produce auxiliary service steam for plant startup and service heating. The amount of combustion products released per year resulting from the addition of these boilers will be insignificant. Estimated emissions are as follows:

Estimated Millions of Pounds of Pollutants Per Year
Based on 6500 Hour Operation Per Year
With #6 Fuel Oil

<u>Item</u>	<u>Quantity</u>
Particulates	0.012
SO ₂	0.332
NO ₂	0.292
CO	-

A permit has been obtained from the New York State Department of Health (now Department of Environmental Conservation) to operate these boilers at Indian Point.

3. Department of Agriculture

We make no comment on the letter from the Department of Agriculture.

4. Federal Power Commission

We agree with the conclusions expressed by the Federal Power Commission and consider its comments an excellent analysis of the problem of alternatives to Indian Point 2.

- 4 -

5. Department of Health, Education and Welfare

The Department of Health, Education and Welfare (HEW) questioned the estimate of liquid radioactive discharges. This estimate was based on the design criteria for the plant. Until the plant operates, it is impossible to state a number for the possible variance of the plant from design criteria. The estimate is so low that ample margin exists for confidence that these discharges will be well within allowable limits. The current PWR operating experience confirms that liquid discharges, even if above design criteria, are small percentages of maximum permissible concentrations.

With respect to radioactive waste treatment and holdup systems, the final technical specification and bases for Indian Point Unit No. 2 (Specification 3.9 Effluent Release) contains the following commitment in regards to use of radioactive waste treatment which was added subsequent to the HEW review:

"Plant equipment shall be used in conjunction with developed operating procedures to maintain surveillance of radioactive gaseous and liquid effluents produced during normal reactor operations and expected operational occurrences in an effort to maintain radioactive releases to unrestricted areas as low as practicable."

HEW suggested that the gaseous waste holdup capacity should be expanded to 60 days minimum. The final technical specification required a minimum of 20 days holdup in the gas decay tanks, except for low radioactivity gaseous waste resulting from operations associated with refueling and startup. The design capacity of the tanks allows a 40 day holdup based on design flow rates. Variation in those rates may permit a longer holdup time. However, the 20 day minimum required by the technical specifications results in discharges that constitute a very small percentage of maximum permissible concentrations. The construction of these tanks was approved in connection with the issuance of the construction permit. Expansion of the tanks would be extremely difficult at this time, and we do not believe it is reasonable to require such work.

With respect to the site gaseous waste discharge limit, a typographical error appeared in the equation for the allowable gaseous release rate from the Indian Point site as first submitted to the AEC in the FSAR. Subsequent to the HEW review, the error was corrected and the equation rewritten to avoid misinterpretation. The correct equation is as follows:

$$\left(\frac{x}{Q}\right)_1 \sum_i \frac{Q_{1i}}{(MPC)_i} + \left(\frac{x}{Q}\right)_2 \sum_i \frac{Q_{2i}}{(MPC)_i} \leq 1.0$$

where: i refers to any radioisotope.

Q_{1i} and Q_{2i} are the release rates (Ci/sec) of any radioisotope i from Unit No. 1 and Unit No. 2 respectively.

(MPC) is in units of $\mu\text{Ci/cc}$ as listed in column 1,

Table II of Appendix B 10 CFR 20, except that for isotopes of iodine and particulates with half lives greater than 8 days, the values of $(MPC)_i$ shall be reduced by a factor of 700.

The above specification applies to the entire Indian Point Site and will be modified to accommodate Unit No. 3 when it is completed and in operation.

HEW commented on the environmental surveillance program. TLD's (thermo-luminescent-dosimeters) are now employed to measure gamma background at 11 points on the site boundary, as indicated in Appendix C. This dosimetry has a minimum sensitivity of 10 millirems per month. Gamma spectroscopy of water is now performed where indicated by gross beta measurements. When Indian Point 2 commences operation, gamma spectroscopy of drinking water, Hudson River water and lake water will be routinely performed under Programs 2 and 3 of the environmental monitoring survey annexed as Appendix B. Tritium, ^3H , measurements are currently made on samples of drinking water.

Con Edison has already indicated that Indian Point Units 1, 2, and 3 should be treated as a single facility in establishing discharge limits. Nuclear Units 4 and 5 are not under review in this context.

HEW commented on the gaseous releases from Indian Point 1. Most of the gaseous radioactivity released from the Indian Point 1 plant was due to the ventilation of the containment. Small amounts of radioactive gasses collect in containment due to leakage of primary coolant. Since it is not possible to process the containment atmosphere through the gaseous radwaste system, these small amounts of radioactivity are eventually released. Differences in leakage rates, fuel defects, and many other factors could result in the differences in releases between different generating PWR's noted. These differences are in no way due to failure to use the radwaste processing system at Indian Point 1. It should be noted that while total releases from Indian Point 1 are higher than from other operating PWR's these releases are still well below 1% of the allowable amount.

6. Department of Interior

The Department of the Interior notes that it is premature to conclude that Indian Point 2 will have no significant adverse impact on the ecology of the Hudson River. Con Edison agrees that it cannot be known with absolute, 100% accuracy, that the plant will have no significant adverse impact on the Hudson River until after the plant has operated and post-operational ecological studies have been completed. However, we believe that Con Edison has approached this problem with due regard for the protection of the environment, has conducted extensive investigations and studies and is justified in its belief, on the basis of the best evidence now available, that Unit No. 2 will have no significant adverse impact on the ecology of the Hudson River.

The Department of the Interior requested information on possible alternative measures and supplementary facilities to alleviate the fish problems similar to those experienced in the operation of Unit No. 1. This matter is presently under review by the Fish Advisory Board referred to in the Environmental Report. Con Edison is doing everything possible to alleviate this problem and

- / -

feels that the interim and long range measures outlined in the Environmental Report embody the best approach to a final resolution of the problem incorporating the latest design criteria gained both from actual operating plant experience and laboratory tests. Numerous alternatives were considered, and as can be seen from the scope of the recommended measures, cost was made secondary to the solution of the problem. The concept for a new intake structure described in the Environmental Report is a very expensive alternative.

The Department of the Interior requested information on programs to monitor the effectiveness of waste controls, thermal discharges and chemical releases. Radioactive waste controls are monitored by the extensive environmental monitoring program described in the Environmental Report, and, in more detail, in the above response to the letter of the Department of Defense and in Appendices A - D.

Programs have been established to monitor thermal discharges. Instrumentation is available to measure the thermal discharges in the discharge canal and in the river. The thermal sensors consist of 4 stations in the river with 4 thermistors per station placed at different water depths. Also, a thermistor is located in the discharge canal. Temperatures are recorded every 30 minutes on an Automated Environmental Systems unit. Aerial overflights at a frequency of 6 per year at three different ambient temperatures have been made in the past year and are proposed as part of the ecology study for the coming year.

Samples are taken from the discharge canal during every chlorination procedure and analyzed for chlorine. Except for a few non-routine discharges, chemical discharges other than chlorine are not monitored, and the Company has never been requested to monitor such discharges.

The Department of the Interior requested information on river flows. Flow in the Hudson River at Indian Point is affected more by the tides than the run off of the tributary water shed. The tidal flow at Indian Point is approximately 150,000 cfs (68 million gpm: the fresh

water runoff varies from 4000 cfs in August to 38,000 cfs in April. The attached figure 1 shows the variation of the tidal flow with location above the Battery and figure 2 presents the seasonal variation of the fresh water run off. The peak tidal flow past the plant will vary from 70 million gpm in August to about 80 million gpm in April. This does not suggest that all this volume rate of flow is available for dilution possibilities. The dilution capability is measured in terms of fresh water flow and the tidal and salinity parameters. However, the significant factor in terms of dilution in this region of the river is associated with the tides and the resulting saline intrusion.

We agree with the Department of the Interior that, during operation of the plant, problems could arise which are not foreseen prior to construction of the plant. Con Edison is legally required to comply with all applicable Federal and state laws and regulations concerning radioactive, thermal and chemical wastes and will have to take whatever measures may be required to correct unforeseen problems which may, if not corrected, result in a violation of applicable laws and regulations, as they exist from time to time.

Sufficient flexibility exists in waste controls to allow for the prevention of exceeding presently applicable limits. We believe that all reasonable provisions exist for later plant modifications, if necessary.

The Department of the Interior requested additional information on the location of environmental monitoring stations and the frequency of sampling. This information is provided above in response to the letter of the Department of Defense, and the information is set forth in Appendices A - D.

Information concerning water quality standards requested by the Department of the Interior has not been included in the Environmental Report in view of the Atomic Energy Commission's guidelines which provide that such matters should not be discussed in the Environmental Report. This is based on the view that, pursuant to the Water Quality Act of 1970, water quality is subject to state control. Water quality information has been furnished to the New York State Department of Environmental Conservation in connection with an application for the certificate required pursuant to the Federal Water Pollution Control Act, as amended by the Water Quality Act of 1970. This information appears as Appendix C to the comments of the New York State Atomic

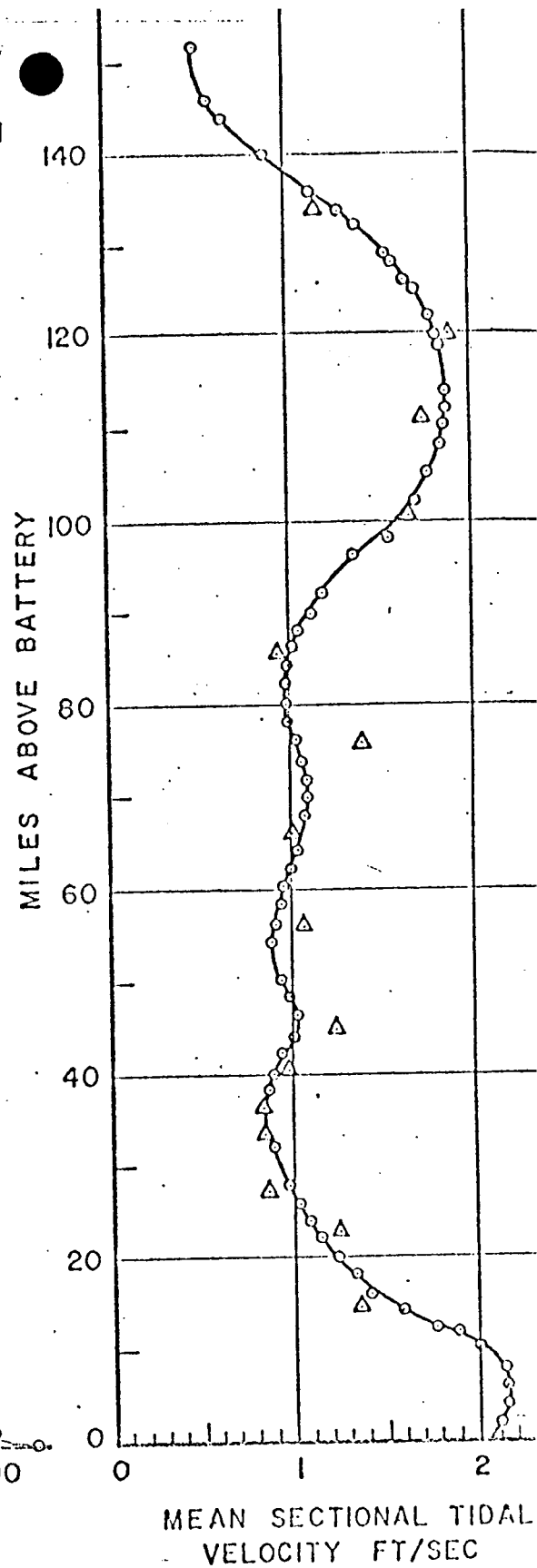
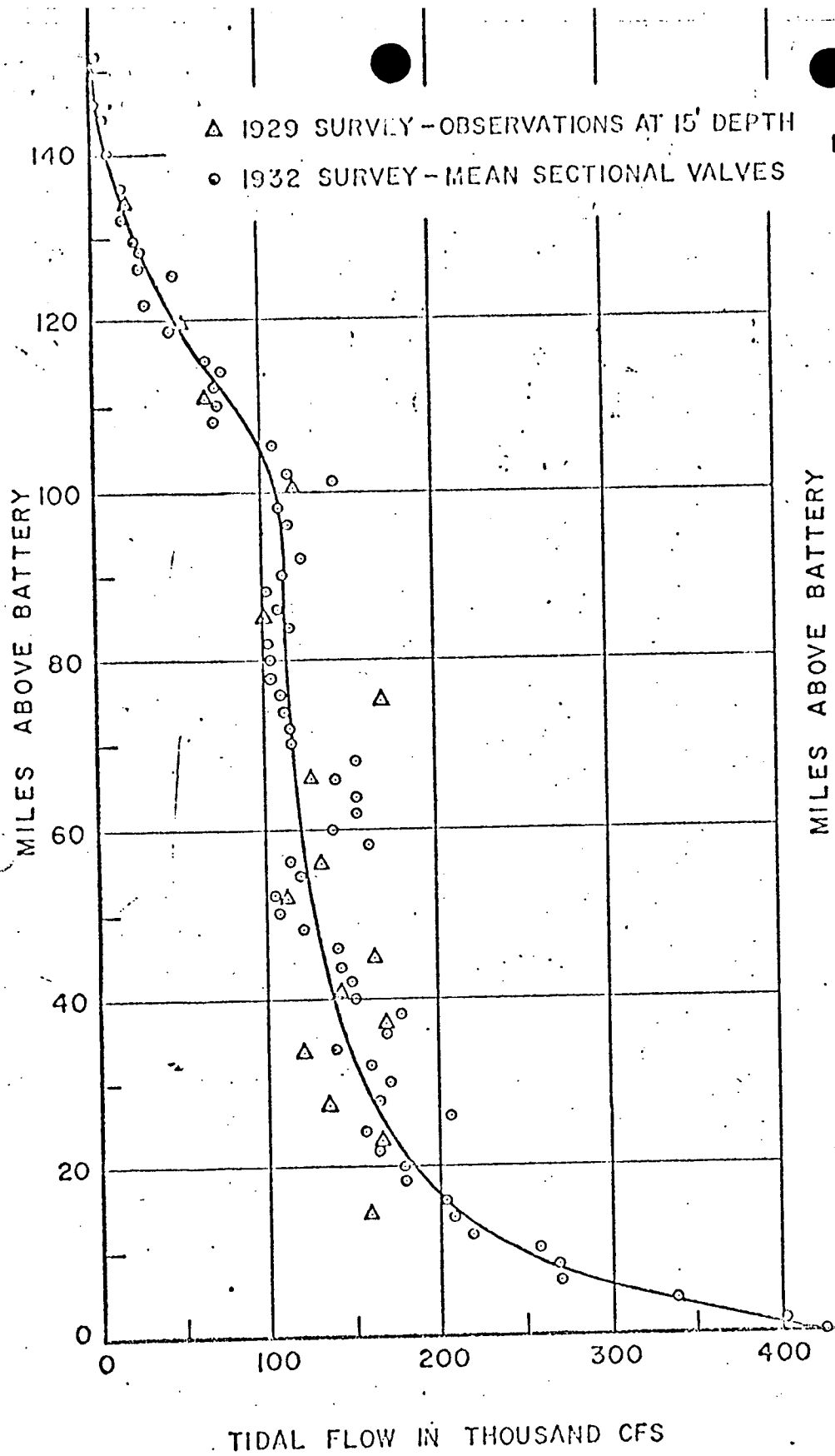


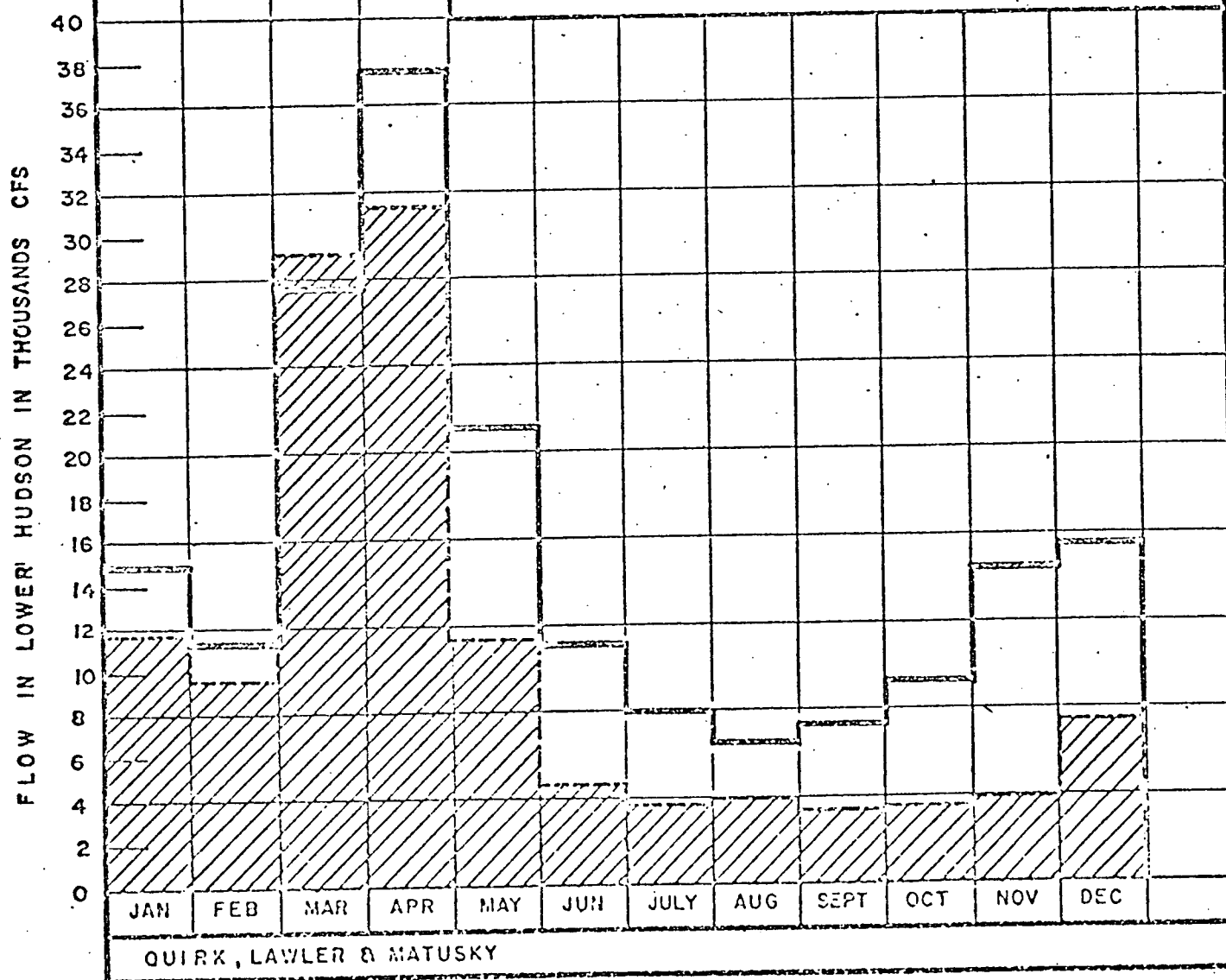
FIGURE 1.
 HUDSON RIVER
 TIDAL FLOW AND VELOCITY

29

FIGURE 2

FLOW IN LOWER HUDSON RIVER

— 1918-1964 MONTHLY AVERAGE FLOW
 1964 MONTHLY AVERAGE FLOW

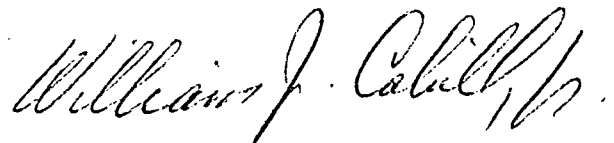


Energy Council transmitted to the AEC by letter dated October 29, 1970.

The Department of the Interior refers to a "catastrophic accident" involving a breach of containment. Con Edison believes that this accident should be ruled out as impossible. This is the subject of the most comprehensive and detailed considerations in the design of a nuclear power plant and is subject to detailed review by the Atomic Energy Commission and its Advisory Committee on Reactor Safeguards. Numerous features are included in the design of the plant to assure that this type of accident cannot occur, even in the event of simultaneous malfunctions of various types. We refer to Section 14 of the Final Safety Analysis Report for the detailed analysis that justifies this conclusion.

I am enclosing extra copies of this letter in case you wish to forward them to the departments which submitted comments on the Environmental Report.

Very truly yours,

A handwritten signature in dark ink, appearing to read "William J. Cahill, Jr.", with a stylized flourish at the end.

William J. Cahill, Jr.
Vice President

Enc.

INDIAN POINT STATION ENVIRONMENTAL SURVEY

<u>Media</u>	<u>Type</u>	<u>Sampling Frequency</u>	<u>Method of Collection</u>	<u>Locations</u>	<u>Analysis</u>	<u>Minimum Sensitivities</u>	<u>Measurement Instrumentation</u>	<u>Remarks</u>
1 Fallout	Continuous	Monthly	Open Pot type rain collector	Point 1 and 15 miles south of site at Eastview	Gross beta and tritium	1 picocurie per liter for gross beta 3000 picocuries per liter for tritium	Gas flow, windowless proportional counter for gross beta Nuclear Measurement Corp. Type PC 3A Type PC 11A Type PC 11T	Measurements made 48 hours after collection to allow for decay of radon daughters
2 Air Particulate and Organic Iodide	Continuous at 1 CFM	Weekly	Two fixed membrane filters (0.8 micron size) preceding a charcoal filter	Points 1, 2, 3, 4 and 5. In addition off-site at points in Peekskill, Buchanan, and Verplanck for one week periods consecutively.	Gross beta and gamma spectrum	0.1 picocuries per cubic meter for gross beta 2 picocuries per cubic meter for I-131	Same as 1 for gross beta Gamma spectrum with 3" x 3" NaI crystal with 400 channel analyzer Radiation Instruments Development Laboratories Model 3412 Gamma Spectrometer	Measurements made soon after collection and 48 hours later to allow for decay of radon daughters
3 Reservoir Water	Grab	Monthly		Points 6, 7 and 8	Same as 1	Same as 1	Same as 1	Same as 1
4 Hudson River Water	Continuous	Weekly	Continuous flow regulated to fill 2 gallon containers. Representative sample taken once a week and containers emptied.	Hudson River inlet pipe into the plant, and at plant discharge canal. Points 9 and 10.	Same as 1 and tritium on monthly composite	Same as 1	Same as 1	Same as 1

INDIAN POINT STATION ENVIRONMENTAL SURVEY

<u>Media</u>	<u>Type</u>	<u>Sampling Frequency</u>	<u>Method Collection</u>	<u>Locations</u>	<u>Analysis</u>	<u>Minimum Sensitivities</u>	<u>Measurement Instrumentation</u>	<u>Remarks</u>
5 Lake Water	Grab	Monthly	1 liter sample off-shore	Points 11, 12 and 13	Same as 1	Same as 1	Same as 1	Same as 1
6 Well Water	Grab	Monthly	From deep-well pumps	Points 6, 14 and Verplanck	Same as 1	Same as 1	Same as 1	Same as 1
7 Lake Aquatic Vegetation	Grab	Once each in Spring, Summer and Fall	Along the lake shore	Same as 5	Same as 2	1 picocurie per gram for gross beta 2 picocuries per gram for I-131	Same as 2	Dry weight for spectrum soon after collection. Sample ashed and counted 48 hours after collection for gross beta
8 Hudson River Aquatic Vegetation	Grab	Same as 7	Along river shore	Points 10, 15, 16, 17 & 22. At mouth of discharge canal, Peekskill Bay, Tompkins Cove, off Verplanck and at the Lovett plant of Orange and Rockland Utilities.	Same as 2	Same as 7	Same as 2	Same as 7
9 Hudson River Bottom Sediment	Grab	Same as 7	Same as 8	Same as 8	Same as 2	Same as 7	Same as 2	Mud dried for both measurements
10 Hudson River Fish	Catch	Monthly	Same as 8	Where available near site	Same as 2	Same as 7	Same as 2	Sample ashed and counted 48 hours after collection for gross beta and gamma spectrum taken
11 Vegetation	Grab	Same as 7	Grab samples with 100 ft ² area	Points 6, 18, 19, 20 and 21	Same as 2	Same as 7	Same as 2	
12 Soil	Grab	1 per year	Grab samples 2" in diameter by 2" deep	Same as 11	Same as 2	Same as 7	Same as 2	Soil dried for spectrum and measured soon after collection. Gross beta of dried soil made 48 hours after collection

INDIAN POINT STATION ENVIRONMENTAL SURVEY

<u>Media</u>	<u>Type</u>	<u>Sampling Frequency</u>	<u>Method of Collection</u>	<u>Locations</u>	<u>Analysis</u>	<u>Minimum Sensitivities</u>	<u>Measurement Instrumentation</u>	<u>Remarks</u>
13 Direct Gamma	Spot Readings	Once a year		Along principal roads within a 5 mile radius of plant	Gross gamma background	2.2×10^6 counts per minute in a Cesium-137 field of 1 mr/hr. Minimum sensitivity 1 ur/hr.	Franklin Systems, Inc. Model 15-2	Instrument readings in counts per minute measured at approximately 1/10 mile intervals. Readings converted to microrem per hour.
14 Direct Gamma	Continuous	Monthly		Selected locations in Buchanan, Verplanck, Montrose, Peekskill, and at a number of points on-site at the plant perimeter	Same as 13	1 mr	Victoreen Ionization Chamber Model 239 0-10 mr or Film badges or TLD-Thermoluminescent dosimeters	

4.10 ENVIRONMENTAL MONITORING SURVEY

Applicability

Applies to routine testing of the plant environs.

Objective

To establish a sampling schedule which will recognize changes in radioactivity in the environs and assure that effluent releases are kept as low as practicable and within allowable limits.

Specification

1. Liquid Discharges

The survey for liquid discharges shall be conducted in accordance with Table 4.10-1 as specified below:

- a. If the gross beta-gamma activity of the station releases to the river is less than 1% of MPC during the month just ended, the environmental survey shall be conducted in accordance with Program 1 for the subsequent month.
- b. If the gross beta-gamma activity of the station releases to the river is greater than 1% of MPC but less than 10% of MPC during the month just ended, the environmental survey shall be conducted in accordance with Program 2 for the subsequent month. If the samples taken under Program 2 do not indicate any significant increase in environmental radioactivity, the survey shall revert to Program 1.
- c. If the gross beta-gamma activity of the station releases to the river is greater than 10% of MPC during the month just ended, the environmental survey shall be conducted in accordance with

- c. Program 3 for the subsequent month. If the samples taken under Program do not indicate any significant increase in environmental radioactivity, the survey shall revert to Program 2.
- d. Irrespective of release levels, once each year the survey shall be taken under Program 3 for a 3 month continuous period.

2. Gaseous Discharges

The survey for the gaseous discharges shall be conducted in accordance with Table 4.10-2 as specified below:

- a. If the average release rate from the plant vent is less than 1% of the annual allowable release rate as specified in Paragraph 3.9-C1 during the month just ended, the environmental survey shall be conducted in accordance with Program 1 for the subsequent month.
- b. If the average release rate from the plant vent is greater than 1% but less than 10% of the annual allowable release rate as specified in Paragraph 3.9-C1 during the month just ended, the environmental survey shall be conducted in accordance with Program 2 for the subsequent month. If the samples taken under Program 2 do not indicate any significant increase in environmental radioactivity, the survey shall revert to Program 1.
- c. If the average release rate from the plant vent is greater than 10% of the annual allowable release rate as specified in Paragraph 3.9-C1 during the month just ended, the environmental survey shall be conducted in accordance with Program 3 for the subsequent month. If the samples taken under Program 3 do not indicate

c. any significant increase in environmental radioactivity, the survey shall revert to Program 2.

d. Irrespective of release levels, once each year the survey shall be taken under Program 3 for a 3 month continuous period.

Basis

Programs for monitoring the adjacent area of the Hudson River will be conducted by the Consolidated Edison Company, by the New York State Department of Health, and by the New York University Institute of Environmental Medicine. The New York State program includes measurement of samples of air, water, milk and wildlife. The New York University Medical Center research program includes the biology of the Hudson River, the distribution and abundance of fish in the river, pesticides and radio-ecological studies.

A nineteen month study which began in June, 1969, is being conducted by Raytheon for the Hudson River Policy Committee. The Committee consists of the New York State Conservation Department, the New Jersey Department of Conversation and Economic Development, the U. S. Bureau of Sport Fisheries and Wildlife, the U. S. Bureau of Commercial Fisheries, and the Connecticut Conservation Department. The objectives of the study are; (1) to determine the seasonal distribution of fish and key organisms within and outside of the areas to be exposed to the heated and otherwise altered discharge from Units 1, 2, and 3; (2) to determine the effects of temperature rise and chemical additives on the survival and behavior of screenable and non-screenable fish and organisms in the area; (3) to catalog physical and chemical characteristics

of the estuary often associated with observed changes in the biota; i.e., temperature, salinity, conductivity, dissolved and suspended solids, dissolved oxygen, and physical alternations.

The various studies mentioned above include measurements of radioactivity in fresh water, river water, river sediments, fish, milk, aquatic vegetation, soil, and air in the vicinity of the Indian Point Station.

The environmental monitoring program conducted by the Consolidated Edison Company will supply sufficient data to determine the compliance of the Indian Point Station with the requirements of 10CFR20. The schedules for liquid and gaseous discharges will insure that changes in the environmental radioactivity will be detected.

Although the design of the proposed facility and administrative controls will be such that gaseous and liquid effluents will be released in accordance with the requirements of 10CFR20, the environmental monitoring program of the Consolidated Edison Company provides a redundant means of insuring that the operation of the proposed facility does not pose any undue risk to the health and safety of the Public. The New York State and New York University programs provide an independent means of verifying the proposed facilities compliance with 10CFR20.

Table 4.10-1

Environmental Monitoring Survey - Liquid Discharges⁺

<u>Media of Sample</u>	<u>No. of Samples/ Collection</u>	<u>Programs</u>					
		<u>I</u>		<u>2</u>		<u>3</u>	
		<u>Collection Frequency</u>	<u>Analysis*</u>	<u>Collection Frequency</u>	<u>Analysis*</u>	<u>Collection Frequency</u>	<u>Analysis</u>
Hudson River Water	2 1	W MC	GBG T	TW MC	GBG GSA T	D MC	GBG GSA RA T
Hudson River Aquatic Vegetation	15	SSF	GBG	MDGS	GBG GSA	MDGS	GBG GSA RA
Hudson River Bottom Sediment	5	SSF	GBG	M	GBG GSA	M	GBG GSA RA
B-5 Hudson River Fish	1	M	GBG	TM	GBG GSA	W	GBG GSA RA

*Samples will be taken whenever biologically available.

*Minimum equipment sensitivity shall be those given in FSAR Table 11.11-1.

Nomenclature for Sample Frequency

W - Weekly
 TW - Twice Weekly
 D - Daily
 M - Monthly
 MC - Monthly Composite
 TM - Twice Monthly
 SSF - Once each in Spring, Summer and Fall
 MDGS - Monthly During the Growing Season

Nomenclature for Analysis

GBG - Gross Beta-Gamma GSA - Gamma Spectrometer Analysis T - Tritium
 RA - Radiochemical Analysis to determine biologically important isotopes.

Table 4.10-2

Environmental Monitoring Survey - Gaseous Discharges⁺

PROGRAMS

<u>Media of Sample</u>	<u>No. of Samples/ Collection</u>	PROGRAMS					
		1		2		3	
		<u>Collection Frequency</u>	<u>Analysis*</u>	<u>Collection Frequency</u>	<u>Analysis**</u>	<u>Collection Frequency</u>	<u>Analysis</u>
Fallout	2	M	GBG T*	M	GBG GSA T*	TM MC	GBG GSA RA *
Air Particulate & Organic Iodide	9	W	GBG GSA	TW	GBG GSA	TW	GBG GSA RA
Drinking Water Supplies	3	M	GBG T	TM MC	GBG GSA T	W MC	GBG GSA RA T
Lake Water & Well Water	6	M	GBG T	TM MC	GBG GSA T	W MC	GBG GSA RA T
Lake Aquatic & Vegetation & Land Vegetation	8	SSF	GBG	MDGS	GBG GSA	MDGS	G GSA RA
Soil	5	A	GBG	M	GBG GSA	M	GBG GSA RA
Direct Gamma (Spot Readings)	180	A	GGB	MSL	GGB	WSL	GGB

Table 4.10-2
(Continued)

<u>Media of Sample</u>	<u>No. of Samples/ Collection</u>	<u>PROGRAMS</u>					
		<u>1</u>		<u>2</u>		<u>3</u>	
		<u>Collection Frequency</u>	<u>Analysis*</u>	<u>Collection Frequency</u>	<u>Analysis**</u>	<u>Collection Frequency</u>	<u>Analysis</u>
Direct Gamma (Peripheral Monitoring)	15	M	GGB	TM	GGB	W	GGB
Milk	1					M	GBG CSA RA

+Samples will be taken whenever biologically available.

*Tritium analysis will be performed provided sufficient wet deposition occurs.

**Minimum equipment sensitivities shall be those given in FSAR Table 11.11-1

Table 4.10-2 (Continued)

Environmental Monitoring Survey - Gaseous Discharge

Nomenclature for Sample Frequency

M - Monthly
TM - Twice Monthly
W - Weekly
TW - Twice Weekly
MC - Monthly Composite
A - Annually
SSF - Once each in Spring, Summer and Fall
MDGS - Monthly During the Growing Season
MSL - Monthly at Selected Locations
WSL - Weekly at Selected Locations

Nomenclature for Analysis

GBG - Gross Beta-Gamma
GSA - Gamma Spectrometer Analysis
RA - Radiochemical Analysis to determine biologically important isotopes
T - Tritium
GGB - Gross Gamma Background





2 TLD'S LOCATED APPROX. 1 MILE NE OF PLANT SITE

2 TLD'S LOCATED AT CROSSING TOWER

THERMOLUMINESCENT DOSIMETER LOCATIONS

SCALE PLOT PLAN OF THE SITE SHOWING LOCATION OF THE FACILITY INDIAN POINT STATION BUCHANAN, N.Y.

THERMOLUMINESCENT DOSIMETER LOCATIONS

SCALE 0' 100' 200' 300'

APRIL 1967

Consolidated Edison Company
New York, N.Y. 10003
William J. Cahill, Jr.

TO:

Dr. Peter A. Morris

CLASSIF:

U

POST OFFICE

REG. NO:

DESCRIPTION: (Must Be Unclassified)

Ltr re our 10-27-70.....
furnishing comments on Federal Agencies
comments regarding Enviro Rpt for
Indian Point 2

ENCLOSURES:

REMARKS:

No Orig signed cy rec'd. 6 mimeograph
cys rec'd.

11-12-70

11-13-70

3052

LTR.

MEMO:

REPORT:

OTHER:

ORIG.:

CC:

OTHER:

ACTION NECESSARY ☐

NO ACTION NECESSARY ☐

CONCURRENCE ☐

COMMENT ☐

DATE ANSWERED: 11-13-70

BY:

FILE CODE:

50-247

(ENVIRO FILE)

REFERRED TO

DATE

RECEIVED BY

DATE

Muller

11-13-70

w/4 cys for ACTION (w/orig for MATS) (Orig to be
returned to 016)

DISTRIBUTION:

Regulatory File

AEC PDR

Compliance(2)

Henderson

Felton

Shapar(OGC, Rm P 506A)

DiNunno

Boyd

DeYoung

E. Price, SLR

N. Dube

P. Howe (2)

Morris/Schroeder

DO NOT REMOVE

ACKNOWLEDGED

3052

dh1

U.S. ATOMIC ENERGY COMMISSION

MAIL CONTROL FORM

FORM AEC-3265

(8-60)