

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

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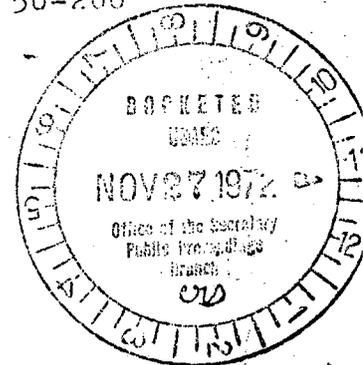
In the Matter of

CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.

Application for Indian Point
Nuclear Generating Unit No. 3

Docket
No. 50-286

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PETITION FOR LEAVE TO INTERVENE
AND FOR A HEARING

Pursuant to the Atomic Energy Commission Notice for Docket No. 50-286 appearing in 37 Fed.Reg. 22816 (No. 206, Oct. 25, 1972), The Hudson River Fishermen's Association ("HRFA") hereby petitions the Atomic Energy Commission ("AEC") for leave to intervene in the Matter of the Application of Consolidated Edison Company of New York ("Con Ed") for a facility operating license which would authorize the applicant to possess, use, and operate the Indian Point Nuclear Generating Unit No. 3 ("Indian Point No. 3").

Petitioner also requests that a Hearing be held on the Con Ed Application.

I. INTERVENOR

HRFA is a non-profit conservation organization incorporated in the State of New York in 1966. Its purposes are as follows: to encourage the rational use of the aquatic resources of the Hudson River and its tributaries; to gather, study and disseminate information about the ecology of the Hudson watershed, particularly in regard

to the life histories and needs of fishes; to endeavor to protect the spawning and nursery grounds of desirable sports and commercial fishes; and to assist in efforts to abate pollution.

HRFA has approximately 750 members many of whom will be affected by the operation of Indian Point Unit No. 3. HRFA is interested in maintaining the purity of the waters of the Hudson, its tributaries and the Atlantic coastal waters from pollution by radioactive waste materials, excessive heating of water and all other substances or uses which may endanger the lives of fish, other aquatic life and the ecology of the Hudson River. HRFA is especially affected by possible irreparable harm inflicted on the Hudson River fishery by the Indian Point No. 3 cooling system.

II. SPECIFIC ASPECTS OF APPLICATION AFFECTING INTERVENOR

The operation and use of Indian Point No. 3 can have a severely adverse impact on the fish resources of the Hudson River and Atlantic coastal waters. If not properly safeguarded, the Unit's cooling system could endanger and damage the fish resources by entrainment of fish and other non-screenable organisms, by expelling thermal waste and radiation with water returned to the river and impinging fish at the plant's intake screens. The damage to fish and aquatic life in the Hudson River, in its tributaries, and in the Atlantic coastal waters adversely affects the interests of the HRFA.

More specifically, the HRFA identifies the (a) resources vital to it, (b) the danger raised by Con Ed's application, (c) the importance of the Indian Point No. 3

cooling system and (d) matters in controversy as follows.

(a) Resources Vital to
the Intervenor

The Hudson in the vicinity of Indian Point is a major nursery area for many fish species including striped bass, white perch, alewives, blueback herring, tomcod, bay anchovy, smelt, and Atlantic silverside.

Striped bass is the most valuable fish for sports and commercial purposes which has a major nursery ground in the vicinity of Indian Point and striped bass is the most thoroughly studied fish in the nursery ground. Striped bass in the Hudson spawn eggs principally north of Indian Point. Striped bass spawning takes place annually between approximately May 15th and June 15th. Significant numbers of striped bass in the planktonic mode and in the immediately following pelagic mode are present in the immediate vicinity of Indian Point between approximately May 15th and July 30th.

While in the planktonic mode, and in the first weeks of the immediately following pelagic mode, striped bass in the Hudson are largely distributed by hydrological forces. Striped bass are in the planktonic mode for approximately the first six weeks of life.

During the planktonic and immediately following pelagic stage of life, striped bass are moved southward from the major spawning areas to their nurseries in the areas of brackish water. The distribution of the fish is influenced by any northward moving saline wedge on the bottom. The distribution of the fish is influenced by the

fresh water moving southward. The distribution of the fish is influenced by the tidal movements.

Gammarus and Neomysis are important food material for juvenile fish in the Hudson such as striped bass.

Gammarus and Neomysis have reproduction cycles of one to three generations a year. Gammarus and Neomysis will pass through the cooling systems of Indian Point Units 1, 2 and 3. A significant proportion of Gammarus and Neomysis passing through the cooling systems of the plants will be killed during the summer period.

The Hudson nursery ground is a major contributor to the Mid-Atlantic and New England striped bass fishery. There is no indication that compensatory effects will reduce the significance in the adult population of the percentage reduction in the larval, juvenile and young of year population.

The fishery dependent on the Hudson has a multi-million dollar value. The 1970 value of the Atlantic striped bass fishery supported by the Hudson in terms of sports catch is approximately \$73 million. The 1970 value of the Atlantic striped bass fishery supported by the Hudson in terms of commercial catch is approximately \$2.4 million.

(b) Dangers Presented in
Con Ed's Application

Several dangers are apparent in Con Ed's Application should Indian Point No. 3 be permitted to operate with a once-through cooling system. Operating at full capacity under normal conditions with the present cooling system, Indian Point No. 3 will withdraw approximately 863 g.p.m. from the

Hudson. Operating at full capacity under normal conditions with the present cooling system, Indian Point No. 1 will withdraw 319,000 g.p.m. from the Hudson. Operating at full capacity under normal conditions, with the present cooling system, Indian Point No. 2 will withdraw 840 g.p.m. from the Hudson.

The present screening devices allow most planktonic and pelagic organisms up to the size of approximately two inches to pass through the cooling system of Indian Point No. 3, as well as No. 1 and No. 2. Specifically, (a) under normal operating conditions with the present cooling system, planktonic and early pelagic organisms entering Indian Point Unit No. 1 between May 15th and July 30th will be subjected to: a speedy temperature rise of 12.4°F and will be exposed to the raised temperature for some time; repeated rapid changes of pressure; mechanical damage; periodic chemical change; (b) under normal operating conditions, planktonic and early pelagic organisms entering Indian Point Unit No. 2 between May 15th and July 30th will be subjected to: a speedy temperature rise of 14.9°F and will be exposed to the raised temperature for some time; repeated rapid changes of pressure; mechanical damage; periodic chemical damage; and (c) under normal operating conditions with the present cooling system, planktonic and early pelagic organisms entering Indian Point Unit No. 3 between May 15th and July 30th will be subjected to: a speedy temperature rise of approximately 15°F and will be exposed to the raised temperature for some time; repeated rapid changes of pressure; mechanical damage; and periodic chemical change.

Fish in the planktonic form and in the first weeks of the immediately following pelagic mode entering the present cooling system of Indian Point Unit No. 1, Indian Point Unit No. 2, and Indian Point Unit No. 3 will suffer a severe adverse impact; it is most likely that all or nearly all striped bass will be killed by passage through the cooling system as presently planned for operation.

Approximately 20% of the annual production of striped bass in the Hudson will pass through the cooling system of Indian Point Unit No. 3 in the planktonic mode and the first weeks of the immediately following pelagic mode.

Approximately 35% of the annual production of striped bass in the Hudson will pass through the cooling systems of Indian Point Units 1, 2 and 3 combined in the planktonic mode and the first weeks of the immediately following pelagic mode.

Significant damage to the Hudson population of white perch, alewife, blueback herring, bay anchovy, smelt and Atlantic silverside is probable due to their passage through the cooling systems at Indian Point Units 1, 2 and 3.

Significant numbers of fish have been killed at the intake screens of Indian Point Unit No. 1, but complete numbers are not available. Con Ed's records of fish kills have not been kept in a complete and uniform manner. Con Ed's records of fish kills have (i) omissions of days when counts were not made, (ii) periods within the day when screen washings were missed, and (iii) omissions of fish killed and not counted.

Extrapolations from records of fish kills indicate that in a typical year more than 1.5 million fish will probably be killed at the intake screens to Indian Point Unit No. 1 when the plant is at full capacity under normal operating conditions. Reduction of intake flow will reduce fish kills in the winter. On the average, at least four times as many fish will be killed at the Indian Point Unit No. 3 intake screens as will be killed at the Indian Point Unit No. 1 screens.

It is likely that when Indian Point Unit Nos. 1, 2 and 3 are operating at full capacity under normal conditions with the present cooling system, at least 12 million fish will be killed on the intake screens of the three plants, assuming continuing high population size. It is probable that the total fish kills will be made up of at least 5% striped bass. It is probable that the total fish kills will be made up of more than 75% white perch. The killing of fish on the intake screens of Indian Point Units No. 1, 2 and 3 will have a significant adverse impact on the fishery and general ecology of the Hudson, particularly on the annual production of striped bass which will be reduced by approximately 65% by the combined effects of entrainment and impingement at the three plants.

The proportion of Gammarus and Neomysis in the Hudson which will pass through the cooling systems of the plants is unknown. The precise impact of the loss of Gammarus and Neomysis passing through the cooling systems of the plants on the food supply of juvenile fish in the Hudson is unknown, but will involve a significant loss of food organisms. A further adverse impact on the food chain

will occur through a significant loss of phytoplankton as a result of passage through the cooling systems of Indian Point Units 1, 2 and 3.

The reduction of the annual striped bass population in the Hudson by 65% will result in a massive reduction in the striped bass fishery along the Mid and North Atlantic coast as that year class enters the fishery four to five years later. A serious reduction of the fishery will be caused by any continued reduction of the breeding stock.

The indirect effects of the biota of the Hudson of the operation of Indian Point No. 3 with the present cooling system are unknown but there may be significant adverse effects.

The total adverse impact of the fishery of the Hudson from the discharge of heated water is unknown, but the heated plumes from Indian Point and Lovett will interfere with the migrating and seasonal movements of fish in the Hudson to and from their spawning grounds.

Loss of dissolved oxygen during the passage of water through the cooling system in summer will have an adverse impact on the biota of the Hudson.

The release of chlorine and its compounds will have a significant adverse impact on the fish and other aquatic biota in the vicinity of Indian Point.

(c) The Importance of
Indian Point No. 3's
Cooling System

The type and operation of the cooling system for Indian Point No. 3 is crucial to the protection of the fish resources of the Hudson. The HRFA needs point no further than the Final Environmental Statement issued by the AEC Directorate of Licensing related to operation of the Indian Point Nuclear Generating Plant Unit No. 2, Docket No. 50-247 (September, 1972).

In relation to Indian Point No. 3, several points must be urged.

The presently proposed cooling system has inadequacies. The present cooling system has a significant adverse impact on fish of screenable and non-screenable sizes. The present cooling system has a significant adverse impact on the other aquatic life of the Hudson. The intake structure cannot be varied to draw from different parts of the water column in order to take advantage of vertical variations in fish distribution. The inlet screens become clogged with trash and fish, resulting in higher velocities through the screens.

The installation of a closed-cycle cooling system will reduce withdrawal of water from the Hudson to 2-1/2 to 5% of the volume needed for once-through cooling. Reduction of volume of water withdrawn will reduce the amount of fish and other non-screenable organisms passing through the cooling system of Indian Point No. 3. Reduction of volume of water withdrawn will very substantially reduce the number

of fish killed at the intake screens to Indian Point Unit No. 3.

The cost of a closed-cycle cooling system at Indian Point will be approximately \$17.5 to \$30 million. The installation of a closed-cycle cooling system will require some additional or modified pumping equipment. The installation of a closed-cycle cooling system will substantially reduce the discharge of heated water into the Hudson.

There is no reliable evidence that the operation of a closed-cycle cooling system will result in a fogging problem, a saline drift problem, or a noise problem. There are indications that the installation of a closed-cycle cooling system may result in an aesthetic problem by intruding on the landscape. It will take no more than two and one-half years to construct a closed-cycle cooling system and place it in operation.

(d) Matters in Controversy

HRFA contends that any operating license issued for Indian Point No. 3 must be conditioned on the installation and operation of a closed-cycle cooling system at Indian Point No. 3. HRFA presses for rapid construction of such a cooling system and no operation of the Unit until the closed-cycle system is installed and operating.

cycle system is installed and operating.

HRFA believes Con Ed proposes a closed-cycle cooling system and proposes a research program on the questionable grounds that (1) not enough is presently known about the effects of the operation of Indian Point No. 3 on the Hudson fishery and (2) the closed-cycle system is too expensive to construct without complete knowledge of the River.

HRFA contends that after 10 years of operating Indian Point No. 1, Con Ed has had ample opportunity for research and present knowledge is sufficient to permit a reasoned and reasonable prediction of Indian Point No. 3's effect. Especially with Indian Point No. 1 and 2 and with two other large fossil fuel plants (Bowline Point at 1260 MW, and Roseton at 1200 MW) beginning operation on the same reach of the Hudson over the next 18 months, the cumulative damages and risks are too great to delay construction of the closed-cycle system or to allow operation of the plant until such a system is in operation.

HRFA contends that the Staff recommendation to require the closed-cycle cooling system on Indian Point No. 2 supports HRFA's contention that such a system should be required for Indian Point No. 3, which is a sister plant of greater size at the same location. A closed-cycle system will reduce intake of Hudson water by 95-98%, with the consequent massive reduction of the adverse impact on the fishery.

Protection of the Hudson fishery by a closed-cycle cooling system is in Con Ed's interest, as well as that of

the public and HRFA. The Conservation Law of the State of New York prohibits a taking of fish by drawing off water and imposes a penalty of \$10 for each fish so taken. N.Y. Conservation Law, §§ 275, 389. Con Ed has been held liable for penalties under these provisions for fish impinged at Indian Point No. 2. Con Ed would be liable to the State of New York for tens of millions of dollars annually in civil penalties for fish taken at Indian Point if an alternative cooling system is not put into operation.

III. INTERVENOR'S INTERESTS AND RIGHT TO INTERVENE

HRFA's members derive considerable recreational, social, economic and other benefits from the fish resources of the Hudson. They have, as an organization and as individuals, a great interest in protecting these resources from the dangers outlined above.

The HRFA's interest in protecting the fish resources around Indian Point No. 3 is long standing. HRFA has identified many pollution sources on the Hudson and brought these to the attention of state and federal agencies, including the U.S. Attorney for the Southern District of New York, and has received rewards under the 1899 Refuse Act for these actions. HRFA was given leave to intervene by the U.S. Atomic Energy Commission in Con Ed's Application for an operating license for Indian Point No. 2 (Docket No. 50-247) and has actively participated in that proceeding, helping to assure that a fair decision is reached upon a full record.

As early as May of 1968, HRFA has acted to protect the fish resources from dangers arising out of Con Ed's

Indian Point Units. In May of 1968, the then President and five directors of HRFA met with officials of Con Ed to warn them of dangers inherent in the Indian Point Units. The HRFA offered suggestions to correct dangerous deficiencies. Con Ed officials rejected the HRFA's proposals and cooperation on the since discredited ground it could avoid thermal pollution standards by securing reclassification of the lower tidal Hudson River as "freshwater stream."

Any order which the U.S. Atomic Energy Commission might enter permitting Con Ed to operate Indian Point No. 3 without a closed-cycle cooling system would irreparably harm, as outlined above, the fish resources of the Hudson River and the Atlantic coast. Such harm would severely injure the interests of the HRFA and its members.

Under the provisions of the Atomic Energy Act of 1954, as amended, and the Commission's Regulations, 10 C.F.R., and the National Environmental Policy Act of 1969, the HRFA asserts its right to intervene, having identified its interest in specific issues. The HRFA has raised issues of fact and contentions which are properly within the jurisdiction of the U.S. Atomic Energy Commission under these Acts and Regulations.

The HRFA believes its intervention will be the only means to press and preserve its interests. It will provide expert testimony in support of its contentions and will participate in examining witnesses. In both these ways, the HRFA will assist in developing a sound record. No

existing party fully or adequately represents the HRFA's interests.

The HRFA is in close contact with similar citizen fishing groups along the Hudson River and along Long Island Sound and the New Jersey coast. Its contentions are representative of these fellow groups.

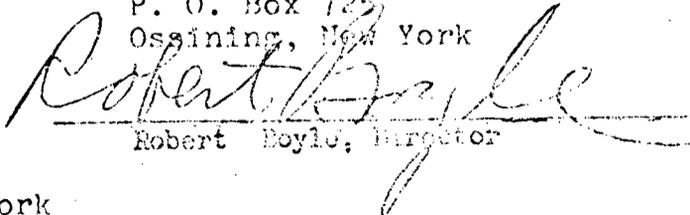
The most important of all considerations, however, is the fact that Con Ed's application as to Indian Point No. 3 raises the same issues as does its existing Indian Point No. 2 application. The HRFA is fully aware of these issues, having participated in the Indian Point No. 2 proceedings as an intervenor, and will press in the Indian Point No. 3 proceedings the same basic contentions and positions which it has taken in the Indian Point No. 2 proceeding. See In re Consolidated Edison (Indian Point No. 2), A.E.C. Docket 50-247.

The HRFA, pursuant to 10 C.F.R. § 2.712(b), hereby designates for the service of all papers on HRFA, its attorney-at-law, who is as follows:

Nicholas A. Robinson
Marshall, Bratter, Greene, Allison & Tucker
Office and Post Office Address
430 Park Avenue
New York, New York 10022

WHEREFORE, the HRFA respectfully seeks leave to intervene and request that the Atomic Energy Commission hold a hearing on the Application, Docket No. 50-286.

HUDSON RIVER FISHERMEN'S ASSOCIATION
Post Office Address:
P. O. Box 725
Ossining, New York


Robert Boyle, Director

Dated: New York, New York
November 22, 1972

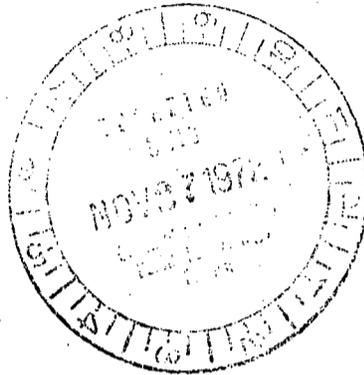
EXHIBIT A

Director of Regulation
U.S. Atomic Energy Commission
Washington, D. C.

General Counsel
U.S. Atomic Energy Commission
Washington, D. C.

Chief Public Proceedings Branch
U.S. Atomic Energy Commission
Washington, D.C. 20545

Harry G. Woodbury
Executive Vice President
Consolidated Edison Company
of New York, Inc.
4 Irving Place
New York, N. Y. 10003



UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

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In the Matter of

CONSOLIDATED EDISON COMPANY OF
NEW YORK, INC.

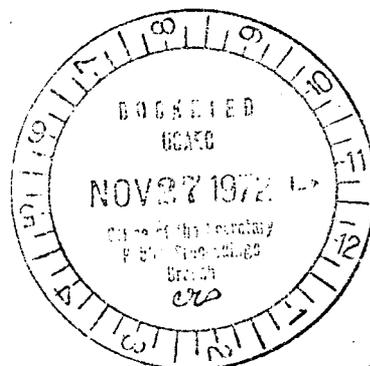
Application for Indian Point
Nuclear Generating Unit No. 3

SUPPORTING
AFFIDAVIT

Docket No. 50-286

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STATE OF NEW YORK)
 : SS.:
COUNTY OF NEW YORK)



I, Robert Boyle, being duly sworn, depose and state that:

1. I am a Director of the Hudson River Fishermen's Association and am empowered by its Board of Directors to make, sign, and verify the annexed Petition to Intervene and Request for a Hearing dated November 22, 1972.

2. I have read the enclosed Petition to Intervene and Request for a Hearing dated November 22, 1972, and know its contents, and that the contents are true to the best of my information and belief.

3. I hereby incorporate by reference the enclosed Petition identifying the aspects of the subject matter of the proceeding as to which the Hudson River Fishermen's Association wishes to intervene. I incorporate here those facts specifically stated and the Association's contentions with regard to those facts.

Robert Boyle
Robert Boyle

Sworn to before me this
24th day of November, 1972.

Nicholas Adams Robinson
Notary Public

NICHOLAS ADAMS ROBINSON
Notary Public, State of New York
No. 31-3310875
Certified in New York County
Commission Expires March 30, 1973

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

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In the Matter of
CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.

Docket No. 50-286

Application for Indian Point
Nuclear Generating Unit No. 3

NOTICE OF
APPEARANCE

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TO: U.S. ATOMIC ENERGY COMMISSION, Washington, D.C.

PLEASE TAKE NOTICE that the undersigned attorney-at-law appears on behalf of the Hudson River Fishermen's Association and Save Our Stripers in their intervention in the above-captioned proceeding, and states that the basis of his eligibility is as follows:

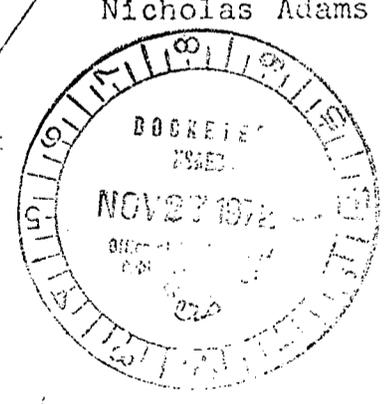
Nicholas Adams Robinson
Office and Post Office Address
Marshall, Bratter, Greene, Allison & Tucker
430 Park Avenue
New York, New York 10022

I am admitted to practice before the highest court of the State of New York, the U.S. District Courts for the Southern and Eastern Districts of New York, and the U.S. Court of Appeals for the Second Circuit.

Nicholas Adams Robinson

Nicholas Adams Robinson

Dated: New York, New York
November 22, 1972



UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

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In the Matter of
CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.

Docket No. 50-286

Application for Indian Point
Nuclear Generating Unit No. 3

NOTICE OF
APPEARANCE

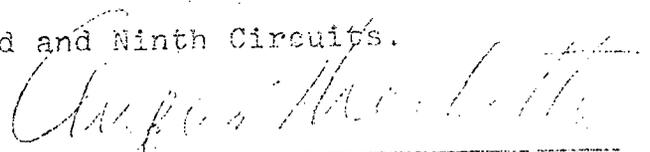
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TO: U.S. ATOMIC ENERGY COMMISSION, Washington, D.C.

PLEASE TAKE NOTICE that the undersigned attorney-at-law appears on behalf of the Hudson River Fishermen's Association and Save Our Stripers in their intervention in the above-captioned proceeding, and states that the basis of his eligibility is as follows:

Angus Macbeth
Office and Post Office Address
Natural Resources Defense Council
36 West 44th Street
New York, New York 10036
Telephone: (212) 986-8310

I am admitted to practice before the highest court of the State of New York, the U.S. District Courts for the Southern and Eastern Districts of New York and the U.S. Courts of Appeals for the Second and Ninth Circuits.



Angus Macbeth

Dated: New York, New York
November 22, 1972

