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UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)
CONSOLIDATED EDISON COMPANY)
OF NEW YORK, INC.) Docket No. 50-247

(Indian Point Nuclear)
Generating Station,)
Unit No. 2))

MEMORANDUM OF STATE OF NEW YORK
REGARDING THE APPLICABILITY OF
STATE LAWS TO THE OPERATION OF
INDIAN POINT UNIT No. 2

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This Memorandum is submitted to the Atomic Safety and Licensing Board to assert New York State's paramount interest in the instant proceedings and to direct the attention of the Board to certain New York laws applicable to the operation of the Indian Point Unit No. 2 power plant. The Board at its hearing in Buchanan, New York on December 7, 1972 (Transcript 7032-7037), expressed concern about the possible violation of State laws if the applicant Consolidated Edison Company employs the once-thru-cooling method at Indian Point No. 2 rather than a closed-cycle cooling system as recommended by the AEC Regulatory Staff. The New York Attorney General has urged the requirement of a closed-cycle cooling system at Indian Point throughout these proceedings, and wholeheartedly supports the position of the Regulatory Staff. The construction and installation of cooling towers at Indian Point No. 2 is absolutely essential if the precious fish resources of the Hudson River and the New York Metropolitan area are to be saved from irreparable harm at the hands of Con Edison -- harm which is inevitable so long as the company is permitted to use the wasteful once-thru cooling system which, experience has already shown, is devastating the fish population of the Hudson.

Under § 11-0105 of the Environmental Conservation Law, the fish and game of New York belong to the State in its sovereign capacity for the benefit of all the people. This ownership is of long standing and deeply rooted in the common law. Geer v. Connecticut, 161 U.S. 519 (1896); Barrett v. State of New York, 220 N.Y. 423, 116 NE 99 (1917). These fish are a natural resource of the State and an irreplaceable one, a source of food and of recreational enjoyment as well as a basis for employment in the boating and other related industries. They do not belong to Con Edison or any other company choosing to operate a plant along the Hudson in such a way as to kill large numbers of them. The right and responsibility of the Legislature to regulate and restrict the taking of fish from the rivers and streams of the State, and even from private waters, has been exercised from the earliest days of the common law and sustained by both federal and state courts. See, e.g., Lawton v. Steele, 119 N.Y. 266 (1890), aff'd 152 U.S. 133; Barrett v. State of New York, supra; In re Fishway, 131 App. Div. 403 (3rd Dept., 1909).

The Attorney General is confident that the federal government and its agencies will seek to act in accordance with the State in its responsibilities to protect the Hudson's fisheries. And let there be no doubt that the utilization of the once-thru-cooling system at Indian Point 2 will seriously undermine the Environmental Conservation Law and frustrate State efforts (such as the 1972 Environmental Bond Issue) to clean up the waters of the Hudson River.

Two legal actions have already been instituted by the State against Con Edison involving Indian Point No. 2. The first suit, People v. Consolidated Edison Company, Inc., Supreme Court, New York County, Index No. 41228/70, seeks \$5,000,000 damages and an injunction requiring Con Edison to institute suitable mechanical procedures to stop the killing of fish and larvae at its Indian Point No. 1 and 2 power plants. The complaint in this action was recently amended to include Unit No. 2 and the case is now being readied for trial. The State will attempt to prove that the damage to the Hudson River ecosystem which will occur with the once-thru-cooling system requires the construction of natural draft closed cycle cooling towers at Indian Point.

Should the Atomic Safety and Licensing Board determine, in the face of the overwhelming evidence and the recommendation of the Regulatory Staff, that once-thru-cooling is acceptable, and issue an operating license to the applicant on such basis, this office would still insist that the State Court order Con Edison to construct cooling towers.

It is the Attorney General's considered and firm opinion, based on extensive scientific documentation, that once-thru-cooling at Indian Point 2 would have a devastating environmental impact on the Hudson River estuary and, indirectly, on Long Island Sound and the Atlantic Ocean as well. The rebuttal testimony of the applicant's own James T. McFadden (Feb. 5, 1973) practically amounts to a cavalier admission that the applicant will destroy the white perch population in the estuary. The danger to the striped bass fishery due to the entrainment of fish eggs and larvae, as documented by the AEC staff, will likely result in the loss of 30-50% of the annual reproduction of that species. These staggering projections compel the State of New York to insist that Con Edison install a closed-cycle cooling system at Indian Point 2.

We disagree, however, with the Regulatory Staff's recommendation that applicant be given almost five years (Jan. 1, 1978) to install cooling towers at Indian Point 2. Serious environmental damage to the State's fish resources would result if Con Edison is allowed to employ the once-thru-cooling system at Indian Point for such a long period of time. The staff's own analysis demonstrates the potentially disastrous effects of once-thru-cooling on the annual striped bass population in the estuary. The Attorney General therefore recommends that Con Edison be required to install cooling towers at Indian Point 2 as soon as possible. Extra work shifts should be employed if necessary to speed up completion of the installation.

The rebuttal testimony of McFadden, blandly suggesting that the present fish species in the Hudson estuary be replaced with others, is an outrage and scientifically indefensible. The laws and policies of the State of New York require the conservation of our fish resources, and do not permit specious experimentation with the delicate balance of nature. The Hudson River and its fish are a resource of the citizens of New York and are not the property of the

applicant. (Envir. Cons. Law § 11-0105). Dr. McFadden's recommendations are wholly unsupported by present scientific analysis and experimentation. No evidence is offered to demonstrate the workability of such an artificial manipulation of the natural order, while the destruction of the white perch and striped bass populations is simply shrugged off with the fantastic excuse that they are merely "post-glacial" fish -- a non sequitur which betrays an abysmally cynical attitude toward the natural resources of the State.

Unfortunately the McFadden recommendations are a manifestation of Con Edison's entire position before this Board. To accept the applicant's present method of producing electricity at Indian Point is to accept Dr. McFadden's Alice-in-Wonderland justifications for the destruction of the entire Hudson River fish population and ecosystem.

The memorandum of Peter N. Skinner, Environmental Engineer in the office of the Attorney General, is submitted in response to the McFadden testimony and attached hereto as Appendix A.

The State has also instituted a suit against Con Edison to recover a \$1.6 million civil penalty for violating § 275(1) of the Conservation Law (now Environmental Conservation Law § 11-1321[1]) at Indian Point 2 in January and February of 1972. That section states, in pertinent part: "No person shall take fish (a) by use of explosives or (b) by shutting or drawing off water." Section 389(4) of the Conservation Law (now Env. Cons. Law § 71-0925[4]) imposes a civil penalty of five hundred dollars for such violation, and "an additional penalty of ten dollars for each fish taken, killed or possessed in violation thereof* * *."

In January and February of 1972, approximately 160,000 fish, mostly white perch, were impinged on the applicant's intake screens as a result of water intake operations at its once-thru-cooling system. 130,000 of these fish were impinged during a four-day period, February 23-26, 1972, when the plant's pumps were being tested at 50% of capacity. As a result of this vast and inexcusable killing of Hudson River fish, on February 29, 1972, New York State Commissioner of Environmental Conservation Henry L. Diamond ordered Con Edison to cease water-intake

operations at Unit 2 and appear at a Departmental hearing on March 9, 1972. On that day, Con Edison appeared with counsel and witnesses and admitted the taking of fish by drawing off river water at Indian Point. Thereupon the Attorney General, at Commissioner Diamond's request, initiated an action against Con Edison to recover the penalty imposed by law. By a judgment entered on November 9, 1972, the court granted the State's motion for summary judgment holding Con Edison liable for violation of the statute. That judgment is now being appealed by Con Edison to the Appellate Division of the Supreme Court. The amount of the penalty imposed by § 389(4) of the Conservation Law is not a discretionary matter, nor does it require proof of actual damage. It simply fines a defendant \$10 for every fish taken from the river by drawing off water. The use of the once-thru-cooling method by applicant, a system which by the company's own admission cannot operate without impinging fish, will likely result in a constant succession of law suits and the imposition of tens of millions of dollars in fines every year. Such an amount should be included in the cost-benefit analysis of the various operating systems being considered for Indian Point 2.

Furthermore, the Commissioner of Environmental Conservation is authorized by § 71-0301 of the Environmental Conservation Law to summarily shut down any power plant whose operations are "likely to result in irreversible or irreparable damage to natural resources." Such action was taken by the Commissioner in February, 1972, as a result of the fish kills at Indian Point 2 at that time. The State Department of Environmental Conservation has the power to refuse to issue water discharge and other permits and can, under § 71-0301, close the plant down unless Con Edison devises a method of producing electricity that does not kill fish.

The Attorney General urges the Board to consider the cumulative effect of other Hudson River power plants in determining the environmental effect of Indian Point 2 on the estuary. Soon there will be nine power plants on the Hudson (in addition to the proposed Storm King hydroelectric pumped-storage project) which will, if Con Edison has its way, be drawing off huge quantities of water from the river

resulting in thermal pollution as well as heavy fish entrainment and impingement. The ultimate environmental impact of Indian Point 2, when considered as part of the total phenomenon, thus assumes even graver proportions.

The State also must consider thermal and chemical discharges in evaluating Con Edison's application for a State Water Discharge Permit. Needless to say, the plant cannot operate without obtaining such a permit and complying with State criteria on thermal and chemical discharges. Such compliance is made more difficult if the once-thru-cooling system is employed at Indian Point 2.

Finally, it is imperative that this Board and the State of New York face this threat to our environment squarely, and not wait any longer to insure the preservation of the State's precious fish resources, before there are no longer any fish to protect. To give in to Con Edison's request for a 5-year study period is to give the applicant additional time within which to inflict irreversible and irreparable damage on the Hudson River estuary. If, on the other hand, the Staff's recommendations are accepted by this Honorable Board, the applicant can begin to produce electric power without destroying our natural environment.

The State is extremely mindful of the need for electricity. But after all the time Con Edison has had to consider alternate methods of cooling, its insistence on five years more to "study" this problem, killing huge numbers of fish every season all the while, amounts to a request for a license to play the roles of the walrus and the carpenter, who, it will be recalled, conversed with their victims until "they'd eaten every one."

CONCLUSION

The Board should require the installation of natural draft closed-cycle cooling towers at the earliest possible time as a condition to the granting of an operating license to applicant.

Dated: New York, New York
March 6, 1973

Respectfully submitted,

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Appendix A

The State of New York construes Dr. McFadden's rebuttal testimony to represent the logical outgrowth of Con Ed's attitude of indifference toward the fish and other natural resources of the Hudson estuary. On page 2 of his submission, "Effects of Indian Point Units #1 and #2 on Hudson River Fish Populations," McFadden maintains that "a wide range of feasible management alternatives exists" to render its once-through cooling system ecologically tolerable. On page 1 Dr. McFadden proposes altering the river's ecosystem to make it more compatible with the existing and planned power plants there, instead of more rationally seeking to design the power plants to make them compatible with the ecosystem they can endanger. For example, he offers to realign the relative abundances of various fish species and to replace some species entirely. At the very least it represents a self-serving legitimization of Con Edison's ecologically disruptive operations which cannot be tolerated by the State.

The State agrees with the AEC Staff's finding that cooling towers are feasible environmentally and economically. Secondly, the Legislature has mandated the Fish and Wildlife

section of the State Department of Environmental Conservation to protect, not rearrange, the natural ecosystem of the estuary. Thirdly, as McFadden himself admits, there are totally inadequate data available on which to make so irreversible a decision. The danger of ecological backfire is too great to permit experimentation with a system so complex. Lastly, the State cannot conceive of a rearrangement or replacement program capable of rendering the river as productive as it could be if left alone and allowed to recover from the effects of applicant's interference. In fact the State cannot conceive of a fish that could be introduced which would survive the thermal, chemical, and mechanical trial caused by Con Edison's once-through cooling system.

Dr. McFadden's allegations about the "substantial costs" of cooling towers at Indian Point 2 are grossly exaggerated. Inflated costs are fabricated into the Con Edison estimates. The real costs of cooling towers will present little hardship to the company when properly reassessed. In the United States, as the Commission is aware, numerous cooling towers are planned, under construction and presently operating. These costs, moreover, will represent

a direct result of the applicant's own selection of Indian Point as a power plant site, and are not the fault of the State, the fishermen or conservationists. In any event the costs to the people of the State in the long run from destruction of their fisheries will far outweigh the short-term costs of effective corrective measures.

It is the firm policy of New York State to protect and maintain indigenous species within their respective ecosystems. The State Legislature has directed through the Fish and Wildlife section of the Department of Environmental Conservation that the present ecological balance be preserved by the propagation and maintenance of species within their habitats (see § 11-0305 of the Environmental Conservation Law).

Many laws and regulations have been enacted to effectuate this policy. The State regulates size limits of catchable fish, type of gear, fishing seasons, geographic area, and bait to preserve the fisheries as they exist today (see Title 13 and Title 3 of the Environmental Conservation Law). Policies exist to actually control or eradicate non-indigenous species such as the sea lamprey. The State has been acquiring and protecting wetlands to guard nursery and

forage areas necessary for the maintenance of a viable fishery (see §§ 11-2101 and 11-2307 and Acts of 1972). Recently special efforts have been made to protect specific genetic strains of wild trout. The People of the State just ratified a \$1.15 billion bond issue to further protect the resources of the State, much of which will be applied to the protection of the Hudson River. It would undermine the citizen's financial stake in the Hudson for the State to permit a disruption of its ecosystem. During the last ten years the State has been pursuing, at enormous expense, the goal of clean water in the Hudson, which in turn will greatly benefit fish life in the river. The State's Pure Waters Program and the recent Bond Issue have highlighted citizen demands for a river capable of recreational usage, water supply, and fish life.

To allow disruption of the fishery by a once-thru-cooling system at Indian Point would render meaningless much of this large expense and personal sacrifice already expended to protect the resources of the Hudson. Peter Lanahan in the February issue of The Conservationist details the improvement these efforts have provided the State:

"Yet, during the last seven years, New York State has turned the corner on pollution in the river. Despite the growth in population and industry along the Hudson's banks, pollution of the river has leveled off, and today, the Hudson is headed back to the time when fish such as striped bass, shad and even six-foot long Atlantic sturgeon survived in its waters from Troy to Manhattan."

"With the continued construction of adequate treatment facilities, the Hudson will soon reach its full potential for providing recreational opportunities, commercial fishing grounds, navigation and natural beauty. And the Hudson will regain its reputation as one of America's finest waterways."

In light of this it certainly would be senseless for the State to adopt a policy toward the fishery which would moot these efforts. The State desires to maintain, not disturb, the unique balance now present in the Hudson.

Further, Dr. McFadden offers no mechanism and no specifics whereby his artificial scheme could be implemented. It is scientifically beyond dispute, as Eugene Odum has pointed out, that the natural mix, evolved from actual conditions in the river, represents the most stable system. The existing mix is difficult enough to protect, let alone

an artificially unbalanced system. Depletion and replacement of any part of the Hudson ecosystem will inevitably result in severe repercussions, just as river pollution has triggered population explosions of carp and tolerant benthic organisms in many places. Dr. McFadden's proposal to recreate a striped bass population in the River by means of hatcheries ignores a long and well-documented history of ineffective attempts to restore fish populations by production in hatcheries. In any event supplementation can be no substitute for installing devices which now exist which will enable Con Edison to operate Indian Point ^h_A innocuously.

The State will not allow a single industry, even a utility, to thus experiment with the fish life of the highly complex Hudson River estuary. Con Edison's proposals are an invitation to destroy one of the very few highly productive estuaries left in the Middle Atlantic region which contribute to our fishery stocks. Disruption of the Hudson River estuary is likely to have effects throughout the East Coast, impairing commercial and sport landings from Maine to the Chesapeake. This radical suggestion to tamper with an entire ecosystem and then expect to artificially

restore it carries with it the risk of injury to the resources of other States and the Federal Government, which have not participated in these proceedings or given their consent to any such experimentation.