

10-5-73

BEFORE THE UNITED STATES

ATOMIC ENERGY COMMISSION

In the Matter of)
)
Consolidated Edison Company) Docket No. 50-247
of New York, Inc.)
(Indian Point Station, Unit No. 2))

BEFORE THE ATOMIC SAFETY
AND LICENSING APPEAL BOARD

APPLICANT'S EXCEPTIONS TO THE
INITIAL DECISION AUTHORIZING
FULL-TERM, FULL-POWER OPERATION

Pursuant to 10 C.F.R. Section 2.762 Applicant hereby files exceptions to the Initial Decision issued by the Atomic Safety and Licensing Board ("Licensing Board") on September 25, 1973 authorizing the full-term, full-power operation of Indian Point 2. Applicant's exceptions are directed to findings, conclusions and rulings set forth in portions of the Licensing Board's Initial Decision which pertain to the environmental conditions which have been imposed by the Licensing Board and which are included in

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Amendment No. 4 to Facility Operating License No. DPR-26
issued on September 28, 1973.

I.

Applicant's Exceptions

The findings, conclusions and rulings of the Licensing Board, which are the subject of these exceptions, contain for the most part mixed errors of law and fact. The specific findings, conclusions and rulings to which Applicant takes exceptions are as follows:

1. The ruling that estimates of impact upon the striped bass fishery based upon present modeling techniques and existing data are an adequate basis for making a decision now to require installation of a closed-cycle cooling system for Indian Point 2 notwithstanding the Licensing Board's recognition that:

"... it is almost impossible to describe the complexities of estuarine behavior by mathematical formulas susceptible to programming for computer computation. The fact of the matter is that even though the computer models which can be built appear very complicated, they involve such great simplifications as to make their applicability to the real situation suspect."

(Pages 29,30, 36-37, 51)*

* Page references are to those portions of the Licensing Board's September 25, 1973 Initial Decision to which each exception is addressed.

2. The ruling that the potential adverse environmental impact of the once-through cooling system for Indian Point 2 justifies construction of a closed-cycle system even though the economic costs of such a system are greater than the Licensing Board's maximum predicted economic loss to the fishery and the environmental costs of the latter system have not yet been determined. (Pages 77-79, 83, 106-108)

3. The ruling that operation of Indian Point 2 with once-through cooling may not continue beyond May 1, 1978 although the Board has not found that operation of the plant for the additional period from May 1, 1978 through September 1, 1981 will have an irreversible impact upon the mid-Atlantic fishery and indeed has specifically agreed "that there is unlikely to be a serious permanent effect on the fishery by a delay of a year or two in starting construction" (Pages 100-101)

4. The conclusion that the National Environmental Policy Act of 1969 ("NEPA") requires that the Hudson River fishery be protected from "serious damage" by installation of a closed-cycle cooling system for Indian Point 2 notwithstanding the estimated balance of monetary benefits and costs

of a closed-cycle cooling system, reflected in the following portions of the decision:

- (a) "On the basis of estimates of monetary values alone, the Board finds that the benefits, to the extent they can be quantified, to be derived from installation of a closed-cycle cooling system on Unit No. 2 are unlikely to approach the cost. This must certainly be true over the next ten years. This, however, is not the only consideration The law requires that a natural resource like the Hudson River fishery be protected from serious damage if economic means having less adverse environmental impact are available to provide such protection."
(Pages 106-107)
- (b) "In a previous section, the Board concluded that the Hudson River supplies between 20 percent and 80 percent of the recruits to the Middle Atlantic striped bass fishery. If the total value of the fishery is \$20 million per year, the Hudson River contribution is between \$4 million and \$16 million per year. Based on the Applicant's 'best estimate' that the reduction in recruitment from the Hudson River would be 5 percent, the impact of once-through cooling of Unit Nos. 1 and 2 would be only \$200,000 to \$800,000 per year in the tenth year after operations have commenced. On the basis of Applicant's most conservative estimate (adopted by the Board as being a reasonable expectation), the reduction in recruitment would be 35 percent and the cost would be \$1.4 million to \$5.6 million per year in the tenth year." (Page 67)

5. The Licensing Board's ruling as to the standards by which it judges the evidence concerning potential adverse effects of the once-through cooling system, reflected in:

(a) The finding on page 48 that "calculations with the combined f factors equal to 1 [is] appropriately conservative," notwithstanding the Licensing Board's recognition that "[t]he Applicant has some justification for its best estimate of the combined f factors."

(b) The finding that the effects of compensation will not effectively mitigate the impact of plant operations, as reflected in the following portions of the decision:

- (1) "The Board agrees that it is desirable to take compensation into account but does not find convincing evidence that the effects at the present level of population are likely to be as effective in reducing the plant impact as Applicant's calculations indicate."
(Page 50) (emphasis added)
- (2) "None of the present evidence demonstrates that compensation will be effective in preventing drastic reductions in the fish populations."
(Page 100) (emphasis added)

and

(c) The conclusion that it is "only prudent to assume that the impact of operation of the plants as they are presently designed will be at least" as great as shown by the "Applicant's conservative calculations." (Page 51) (emphasis added)

6. The conclusion (not supported by Applicant's testimony) that "Applicant's conservative calculations" show certain reductions in the striped bass population due to operation of Indian Point 1 and 2, reflected in the finding that:

"... the Board concludes that the impact of one year of plant operation is unlikely to be as great as is predicted by the Staff and HRFA. However, Applicant's conservative calculations show reductions in striped bass population of 20 percent in the fifth year and 35 percent in the tenth year for operation of the Indian Point Unit Nos. 1 and 2, and 40 and 60 percent for operation of all plants now on the river, including Unit Nos. 1 and 2." (Page 51)

7. The finding that the Hudson River may supply as much as 80 percent of the recruits to the Middle Atlantic fishery and that 20 percent is the lower end of the range of possibilities. (Page 63)

8. The finding that the "[u]se of Hudson River

water for once-through cooling of power plants in the striped bass spawning and nursery areas must be considered as the possible cause if a continuing decline should occur in the Middle Atlantic striped bass fishery." (Page 63) (emphasis added)

9. The finding that "\$16 million per year [is] the value of the maximum long-term impact on the striped bass fishery of operation of Unit Nos. 1 and 2 (and of all other plants on the Hudson River) with once-through cooling systems." (Page 106)

10. The finding that "[a]t the end of five years the maximum impact for striped bass would be a maximum of \$3 million per year and at the end of ten years it would be a maximum of \$6 million per year" (Page 106), and that the monetary cost of the reduction in recruitment to the Middle Atlantic striped bass population would be \$1.4 million to \$5.6 million per year in the tenth year. (Page 67)

11. The finding that "one must expect" that there will be a serious adverse impact on other species of fish using the Hudson River in the vicinity of Indian Point as a spawning and nursery ground due to the operation of the once-through cooling system, reflected in the finding that

"one must expect that the impact of once-through cooling on the populations of those fishes will be similar to the impact on the population of striped bass." (Pages 69, 101)

12. The finding on page 98 that the State of New York (as opposed to the Attorney General of the State) fully supports the position of HRFA as expressed in the following portion of the decision:

"HRFA asserts that data on hand give sufficient evidence of the serious impact that once-through cooling of Unit No. 2 could have on the Hudson River and related fisheries. HRFA does not oppose the imposition of a condition on the license requiring the Applicant to conduct research, but this requirement should in no way be accepted as an alternative for installation of an alternative cooling system at a date no later than that suggested by the Staff and preferably much earlier. The State of New York fully supports this position. (Page 98)

13. The finding that the "... data already available or currently being obtained are sufficient for the Applicant to submit a satisfactory environmental report to the Staff by March 1, 1974." (Page 83)

(a) The finding that twelve months is not needed for environmental studies for cooling towers.
(Page 114, item M27)

(b) The finding that an additional three months is not required for report preparation.

(Page 115, item M28)

(c) The finding that the cooling tower studies commenced on May 1, 1973, reflected in the following statement on page 82:

"This schedule also reflects a slippage from February 1973 to May 1973 in the beginning of the environmental studies by the Applicant."

14. The finding that "... it is reasonable to expect that the reviews [by appropriate agencies] can be completed and the necessary approvals for the closed-cycle cooling system can be obtained before March 1, 1975."

(Page 83)

15. The finding that cooling towers could be completed at Indian Point within 45 months (December 1, 1978) after appropriate State and Federal approvals had been received. (Page 83)

16. The finding that "[e]vidence does not demonstrate need for 5 months' outage in addition to normal refueling outage." (Page 114, item M13)

17. The finding that Applicant's excavation and construction schedule estimates for the implementation of a

natural draft cooling system at Indian Point 2 were not "firmly established enough to reach conclusion" as to excavation and construction time (Page 115, item M32), and that "[t]he schedules presented by the Applicant include very liberal allowances of time for all construction operations and contingencies." (Page 82)

18. The ruling that there will be an adequate opportunity for review by appropriate regulatory agencies of the results of Applicant's research program prior to the start of construction of an alternative closed-cycle system in the summer of 1975, assuming a continuing requirement for termination of operation with once-through cooling on May 1, 1978. (Pages 83, 101)

19. The finding that Federal income and property taxes should be excluded from the annual levelized cost for the implementation of cooling towers at Indian Point 2 and hence that such cost is 16 million dollars. (Pages 80-81)

20. The ruling that it is necessary for the Licensing Board to determine that Applicant's research program will be able to "conclusively demonstrate" by 1977

that the operation of Indian Point 1 and 2 will not have an unacceptable long-term adverse impact on the fisheries supported by the Hudson River, in order to permit once-through operation to continue until September 1, 1981. (Pages 98-100)

21. The Board's ruling as to alleged deficiencies in Applicant's research program reflected in the statements that:

- (a) "... the natural variations in the populations and phenomena being observed are so great as to make it unlikely that the Applicant can provide in a period as short as five years a statistically valid demonstration that the adverse impact of Unit No. 2 operations on the river ecology is acceptably small." (Pages 99-100)
- (b) "[t]he Applicant's studies will not provide a direct answer to the question" of the effect Indian Point 2 "operations may have on the Middle Atlantic striped bass fishery." (Page 100) (emphasis added) and
- (c) "... Applicant's research program is unlikely to resolve the important questions" (Page 101) (emphasis added)

22. The finding that "[i]f stocking is to be used to mitigate the effects of once-through cooling, it is incumbent on the Applicant to show that the benefits of maintaining the populations of [species other than striped bass] fall short of compensating for the costs." (Page 90)

23. The finding that the Licensing Board "does not presently accept rearing and stocking of striped bass as a viable alternative to a closed-cycle cooling system."

(Page 90)

II.

Applicant's Request For Relief

Applicant requests the Appeal Board to affirm the Licensing Board's Initial Decision dated September 25, 1973 except as modified below:

(1) Condition 2.E.(1) (App. A, page 5) required by the Licensing Board that "operation of Indian Point Unit No. 2 with the once-through cooling system will be permitted until May 1, 1978 and thereafter a closed-cycle cooling system shall be required" should be modified to read:

"Operation of the facility with its presently designed once-through cooling system shall be permitted until September 1, 1981. Unless otherwise authorized by an amendment to this operating license following review of the results of licensee's ecological study program, operation shall be permitted after September 1, 1981, only if a closed-cycle cooling system shall have been installed by that date."

(2) Condition 2.E.(2) required by the Licensing Board that Applicant shall submit to the Commission an evaluation

of the economic and environmental impacts of an alternative closed-cycle cooling system by March 1, 1974 should be modified to provide that Applicant shall submit to the Commission an evaluation of the economic and environmental impacts of an alternative closed-cycle cooling system by December 1, 1974. (emphasis added) Accordingly, the Licensing Board's condition should be revised to read:

"Evaluation of the economic and environmental impacts of an alternative closed-cycle cooling system shall be made by the licensee in order to determine a preferred system for installation. This evaluation shall be submitted to the Atomic Energy Commission by December 1, 1974 for review and approval prior to construction."

Respectfully submitted,

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Dated: October 5, 1973

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CERTIFICATE OF SERVICE

I hereby certify that I have served a document entitled "Applicant's Exceptions to the Initial Decision Authorizing Full-Term, Full-Power Operation," dated October 5, 1973, by mailing copies thereof first-class and postage prepaid, to each of the following persons this 5th day of October, 1973:

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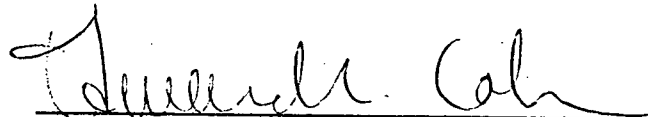
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