

INTRA-LABORATORY CORRESPONDENCE

GAO RIDGE NATIONAL LABORATORY

April 23, 1974

To: C. M. Carter
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W. Fulkerson
G. W. Horde
D. J. Nelson

R. C. Robertson
T. H. Row
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From: R. M. Rush, 3-1532

Subject: Indian Point Unit No. 2: Appeal Board's Disposal of Applicant's
Exceptions to the Licensing Board's Initial Decision

The purpose of this memorandum is to state the disposal by the Appeal Board in its Decision of April 4, 1974, (ALAB-188) of each of the applicant's exceptions to the Initial Decision of the Licensing Board. It was prepared at the request of S. Siegel on April 16, 1974. A copy of the applicant's exceptions is attached.

The determination of the disposal of the exceptions is not as simple as it might first appear since the Appeal Board did not explicitly grant or deny all of the exceptions. Some of the determinations given below represent my own interpretation of the words of the Appeal Board's Decision. I welcome any comments or corrections and will issue an addendum to this memo should any of these interpretations be shown to be incorrect.

Exception 1. The Appeal Board states that "Exceptions 1, 2, and 11 concern the effects of the Indian Point 2 facility on the Hudson River biota, and the estimated costs of these effects." (p. 118). The Appeal Board stated "Therefore, we conclude that the staff's estimate of entrainment due to their endless belt concept is too high." (p. 130); "we must conclude that a value of considerably less than 1 for the combined f factors has been justified by the applicant" (p. 135); and "we conclude from the record that compensation during the entire life cycle of the striped bass can be expected to be a factor in offsetting losses incurred by the operation of the Indian Point facility." (p. 139). These statements indicate that the Appeal Board feels that the staff's model overestimates the impact of entrainment and, thus, could be viewed as granting exceptions 1 and 2.

Exception 2. See comment on exception 1.

Exception 3. The Appeal Board found this exception "to be well taken, and to require that we modify the May 1, 1978, termination date . . ." (p. 117). The Appeal Board established May 1, 1979, as a "reasonable termination date" for the once-through cooling system (p. 185).

Exception 4. The Appeal Board appears to agree with this exception in the statement "It is sufficient for present purposes for us to state that any interpretation of NEPA that requires, as a general proposition, the protection of environmental values as an exclusive goal is erroneous." (p. 66).

Exception 5. This exception was denied (p. 82).

Exception 6. This exception was denied (p. 82).

Exception 7. The Appeal Board states (p. 84) that exceptions 7, 8, 9, and 10 are based on the Licensing Board's ruling that the "Hudson River supplies between 20 percent and 80 percent of the recruits to the Middle Atlantic fishery." These exceptions were presumably granted by the Appeal Board's statement "Accordingly we must reject the staff's claim that the Hudson River is a major source of the Mid-Atlantic striped bass fishery and, also, therefore, its prediction of the damage that is grounded there on." (p. 92).

Exception 8. See comment on exception 7.

Exception 9. See comment on exception 7.

Exception 10. See comment on exception 7.

Exception 11. This is a "toss-up." The exception takes issue with the finding that "one must expect" that there will be a serious impact on other species of fish. The Appeal Board says (p. 141) "if any other species had a life cycle the same as striped bass . . . then 'one must expect' that the impact on such species to be similar to the impact on the striped bass." They note (p. 141), however, that "the record does not show that there are such other species." The Appeal Board then says (p. 141) "we do not agree with the applicant [Applicant's Brief at p. 437] that the Licensing Board's decision to require a closed-cycle cooling system by May 1, 1978 rests on the adverse impact which might occur to species of fish other than striped bass."

Exception 12. The Appeal Board found "the issue raised is without significance to the resolution of the substantive matters before us for decision" (p. 172).

Exception 13. In a previous decision (ALAB-174, January 29, 1974) the Appeal Board granted this exception and changed the due date for the environmental studies for cooling towers from March 1, 1974, to December 1, 1974.

Exception 14. This exception was granted and the review completion date extended from March 1, 1974, to December 1, 1975 (p. 147).

Exception 15. This exception was presumably granted in that the Appeal

Board found that "a period of 48 months . . . is a reasonable time to allow for that [cooling tower] construction" (p. 157).

Exception 16. This exception is addressed on pp. 156-158. It appears to have been granted.

Exception 17. The whole discussion of timing (pp. 141-158) is rather confusing. The Appeal Board seems to accept most of the applicant's schedule but the Appeal Board's date for termination of once-through cooling (May 1, 1979, p. 185) is 29 months before the date proposed by the applicant (September 1, 1981). I'm calling this another "toss-up". It should be noted that the applicant has given several different dates for the cooling tower to be in service (p. 142).

Exception 18. The Appeal Board states (p. 143) "it is beyond dispute that the applicant cannot control the time required for regulatory actions" and "we are not empowered with the powers of clairvoyance which would enable us to know how those matters will be resolved or when." I'm also calling this a "toss-up" (see comment on exception 17).

Exception 19. This exception was denied (p. 173).

Exception 20. This exception was denied (p. 82).

Exception 21. This exception is discussed on pp. 159-166. The Appeal Board appears more-or-less to grant this exception with the statement (p. 166) "Indeed, the applicant is required to conduct the program."

Exception 22. This exception was denied (p. 82).

Exception 23. This exception appears to have been granted since the Appeal Board states (p. 171) "Thus, it would appear that stocking could be used, at least to some degree, to offset any significant adverse damage which might result during interim operation." Note that this is directed towards interim operation while the exception is directed towards the Licensing Board's rejection of stocking "as a viable alternative to a closed-cycle cooling system." On this issue the Appeal Board appears to take a wait-and-see attitude: "That information [meaningful data on the magnitude of the impact of interim operation], coupled with the result of applicant's stocking experiment in the Hudson River starting in 1973, will probably permit a better assessment of the scope of the rearing and stocking programs which will have to be undertaken and the likelihood of success." (p. 171).

Final score:

granted	14	(1, 2, 3, 4, 7, 8, 9, 10, 13, 14, 15, 16, 21, and 23)
denied	5	(5, 6, 19, 20, and 22)
toss-up	3	(11, 17, and 18)
not significant	1	(12)

The following is an index to specific references [i.e., "exception (no.)"] to the individual exceptions of the applicant.

1	53, 118	13	(ALAB-174)
2	53, 118	14	141, 147
3	53, 94, 117	15	141, 149
4	53, 57	16	141, 156
5	53, 67, 82	17	141
6	53, 67, 68, 82	18	141
7	84	19	173
8	84	20	53, 67, 68, 82
9	84	21	159
10	84	22	53, 67, 69, 81, 82
11	118, 140	23	166
12	172		



R. M. Rush

RMR:lg

Attachment

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RESPONDING
EXCEPT
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BEFORE THE UNITED STATES

ATOMIC ENERGY COMMISSION

In the Matter of)

Consolidated Edison Company)

of New York, Inc.)

(Indian Point Station, Unit No. 2))

10-5-73

Docket No. 50-247

BEFORE THE ATOMIC SAFETY
AND LICENSING APPEAL BOARD

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

Handwritten signature: Karmen / San FF.

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

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

3. "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

4. "\$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,

LEBOEUF, LAMB, LEIBY & MACRAE
1757 N Street, N.W.
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Attorneys for Consolidated Edison
Company of New York, Inc.

By

Leonard M. Trosten

Leonard M. Trosten
Partner

Dated: October 5, 1973

INDIAN POINT UNIT NO. 2

FACILITY OPERATING LICENSE NO. DPR-26

Licensing Board Initial Decision
September 25, 1973

Appeal Board Decision
ALAB-188, April 4, 1974

3. This license is subject to the following conditions for the protection of the environment:

- (1) 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.

E. This license is subject to the following conditions for the protection of the environment:

- (1) Operation of Indian Point Unit No. 2 with the once-through cooling system will be permitted during an interim period, the reasonable termination date for which now appears to be May 1, 1979. Such interim operation is subject to the following conditions, none of which shall be interpreted to limit or to affect in any way such other conditions as are imposed by the Atomic Energy Commission or any other governmental body in accord with applicable law:

- (a) Interim operation shall only be permitted to the extent that the requirements of this license to protect the aquatic biota of the Hudson River from any significant adverse impact are satisfied; any necessary mitigating measure shall be promptly taken; such measures to include any authorized remedy deemed to be appropriate by the Atomic Energy Commission including an advancement of the May 1, 1979 date to an earlier date which is deemed reasonable and warranted by the circumstances.

- (b) The finality of the May 1, 1979 date also is grounded on a schedule under which the

applicant, acting with due diligence, obtains all governmental approvals required to proceed with the construction of the closed-cycle cooling system by December 1, 1975. In the event all such governmental approvals are obtained a month or more prior to December 1, 1975, then the May 1, 1979 date shall be advanced accordingly. In the event the applicant has acted with due diligence in seeking all such governmental approvals, but has not obtained such approvals by December 1, 1975, then the May 1, 1979 date shall be postponed accordingly.

- (c) If the applicant believes that the empirical data collected during this interim operation justifies an extension of the interim operation period or such other relief as may be appropriate it may make timely application to the Atomic Energy Commission. The filing of such application in and of itself shall not warrant an extension of the interim operation period.
- (d) After the commencement of the construction of a closed-cycle cooling system, a request for an extension of the interim operation period will be considered by the Atomic Energy Commission on the basis of a showing of good cause by the applicant which also includes showing that the aquatic biota of the Hudson River will continue to be protected from any significant adverse impacts during the period for which an extension is sought.

(2) 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 March 1, 1974 for review and approval prior to construction.

(3) A plan of action of operating procedures and design of the once-through cooling system for Indian Point Unit No. 2 will be developed by the licensee in order to minimize detrimental effects on aquatic biota in the Hudson River to a practicable minimum during the interim period prior to installation of a closed-cycle cooling system. The plan shall include means of reducing thermal shock; impingement on the intake structure; entrainment of fish eggs, larvae and plankton; reduction of chemical and thermal discharges and loss of dissolved oxygen below 4.5 parts per million; reduction of radioactive discharges, in accordance with 10 CFR Part 50; and other mitigating measures available. The plan shall be submitted to the Atomic Energy Commission by January 1, 1974, and, upon approval by the Commission, the plan shall be implemented so as to eliminate or substantially reduce such adverse effects as are revealed by the monitoring and surveillance study program presented in the Technical Specifications.

(2) Date changed from "March 1, 1974" to December 1, 1974." (ALAB-174, January 29, 1974)

(3) Not changed

(4) In addition to the reporting requirements otherwise imposed by this license, the applicant is directed to file with the Commission and serve on the parties reports, under

oath or affirmation, of its analysis of data collected during interim operation which bear on the environmental effects of once-through cooling on the aquatic biota of the Hudson River. Such reports shall be made publicly available. The first such report shall be made as soon as is feasible after the end of the 1974 striped bass spawning season, and thereafter as significant new data become available.

April 17, 1974

To: T. H. Row

Subject: Appeal Board Decision - Indian Point Unit No. 2

I have read the ASLAB decision on Indian Point Unit No. 2 and must admit that I am gravely concerned about its content and conclusions. In my opinion, the consequences of this decision go beyond the case of Indian Point and indeed touch the core of our total effort in the Project. The major decision of the Board to extend the deadline for closed-system cooling from May 1, 1978, to May 1, 1979, does not concern me that much. However, the Appeal Board's philosophy, its interpretation of the NEPA and the Calvert Cliffs' decision, and its overall hard stand toward the staff are very much of concern to me. The major thrust of the ASLAB decision can be summarized best by a number of quotations.

Page 62

"Neither on its face nor in its legislative history does NEPA require that environmental considerations be given ~~permanent~~ consideration so that in all instances all environmental impacts must be minimized."

Page 66

paramount
"...Any interpretation of NEPA that requires, as a general proposition, the protection of environmental values as our exclusive goal is erroneous."

Page 72

"The ultimate burden of proof on whether a license should be issued remains on an applicant. But ..." (Please see complete content of footnote 142 on page 72).

Page 76

"NEPA does not require the use of most conservative assumptions in evaluating environmental impacts."

Page 179

"The reasons for these conclusions are set forth in the text, to summarize, they are:

- A.(1) The record does not support the staff position on ...
 - (2) The record does not support the HRFA and staff position on ...
 - (3) The record does not support the staff position that ...
 - (4) The record does not support the staff position that ..."
- (I wonder if the applicant took part in these hearings at all).

Although the full text of the Appeal Board decision reflects a more balanced position than reflected in the above quotations, the overall thrust is indeed extremely unfavorable to the staff, and, in my opinion, to the environment as well.

The issues raised by the Appeal Board are of utmost importance and our work here cannot be successful unless we know first of all what our goals, criteria, and ground rules are. The ASLAB decision demonstrates that the questions, which bothered us all along but were set aside, must indeed be answered without delay. Some of those questions are as follows.

1. How much damage is a damage? That is, what is the criteria for our assessment? If the operation of the Indian Point Power Plant will not completely destroy the Mid-Atlantic fishery, is the damage acceptable? If not, what percentage of the Hudson fishery must be destroyed before the impact will be serious enough?
2. Whose is the burden of proof? Are we suppose to make a complete independent assessment for each one of the proposed power plants? If so, how can this possibly be done within 17 weeks (see AEC "Expedited Environmental Review Schedules for CP Application")? If not, what is then the meaning of the ASLAB decision on the Indian Point Unit No. 2 case? Since the staff is not part of a profit making organization, should it not have the benefit, if not the authority, to raise the issues and make a reasonable effort in its assessment but yet leave the burden of proof on the applicant?
3. What set of environmental conditions should be considered pessimistic enough, realistic enough or reasonable enough to be applied in evaluating environmental impacts? Should we choose conditions which occur once every 100 years, 10 years, 5 years or maybe every single year? And for how long should they persist in each such case?
4. Is it our responsibility to make sure that existing State and Federal regulations and criteria will indeed be met or shall we leave the prime responsibility in this matter to the appropriate governmental agencies? If it is not our responsibility, what use can be made then of all our thermal hydraulic analysis? Can it be proven that 2, 4, 6, or even 10°F excess temperature will cause serious or any damage to the environment?

I understand that these and other similar issues are not easy to be answered but can we do otherwise? In some respects, it seems to me that the Appeal Board has already answered these questions in its decision. Somehow I have the feeling that those answers are not in line with our own understanding of the Project.

As for the specific thermal hydraulic issues discussed in the ASLAB decision (pages 119-122), I must admit that the staff has not and cannot prove beyond doubt that the New York State thermal criteria will be violated at all conditions and times. I absolutely do not agree, however, that the staff witness (myself) admitted (Testimony 6914) "that the staff misused some of the equations developed by the applicant in its models" (see my written testimony of February 22, 1973, after Testimony 9892). I must also stress that the issue of the effects of other power plants along the Hudson on the Indian Point site was somehow not even discussed in the Appeal Board decision in spite of its vital importance for a total assessment.

In conclusion, I believe that the ASLAB decision should not be left unchallenged, not so much because of its technical decision as because of its basic conclusions related to the approach and methodology which must be used in our effort to protect the environment.


(by) M. Siman-Tov

MS/blm

cc: S. E. Beall
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