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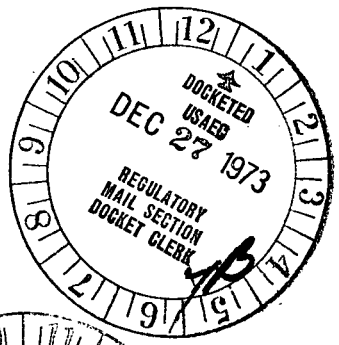

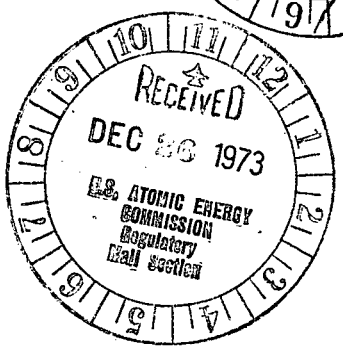

Mr. L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Re: Indian Point 3
Docket No. 50-286

Dear Mr. Muntzing:

Con Edison respectfully submits the following comments on the Draft Environmental Statement by the Directorate of Licensing related to the operation of Indian Point Nuclear Generating Plant Unit No. 3 (DES). We hope these comments will be useful to the AEC's Regulatory Staff (the Staff) in its preparation of the Final Environmental Statement. Detailed comments are set forth in an appendix. We would like to make the following principal observations.

1. DES Fails To Analyze Whether There is Time To Complete Studies

The DES, despite its bulk, fails to address the principal issue in contention between Con Edison and the Staff--that is, whether there is time to complete the ecological study program prior to making the decision whether or not to build cooling towers.

During the course of the hearing on Indian Point 2 it became very clear that the presently existing data were inadequate. Witnesses of unquestioned honesty and integrity reached extremely diverse conclusions because of different assumptions made in the face of lack of good data. It would seem obvious that the only way we will know the impact of the plant is to start Unit 2 and also Unit 3 and make careful measurements of important biological parameters. Then we will know impacts instead of assuming them. Con Edison has designed and is implementing an ecological study program

which will make these measurements.

Although the Staff has criticized this program, we suggest it is completely inconsistent to predict massive biological damage on the one hand and then say that a study program as extensive as that undertaken by Con Edison may not detect any damage. Clearly the program will detect damage of the dimensions postulated by the Staff.

The critical question then becomes whether, in the event serious damage should occur, there is time to complete this program without creating an irreversible adverse impact on the aquatic resources of the Hudson River. The DES does not address this question. If the study program shows that the Staff's worst estimates are true, closed-cycle cooling systems can then be installed and the biological systems of the river would recover from the adverse impact. Numerous instances exist of recovery of biological systems after much more extensive destruction than is postulated by the Staff. The Staff has not considered whether the prevention of a possible short-term diminution of aquatic resources justifies making the cooling tower decision now. We submit that the economic costs of such an approach clearly outweigh the environmental benefits, which at the present time are speculative in nature.

Also the Staff agrees that the hatchery program can mitigate any damage from such interim plant operation (XI-46*), and Con Edison has expressed a willingness to effectuate such a program. Accordingly, no valid reason is presented in the DES for denying Applicant the opportunity to complete the ecological study program prior to making the decision on cooling towers.

2. Bias in Analysis of Biological Impact

A. Existence of Bias

Con Edison is deeply distressed at the obvious bias that permeates the estimate of biological impact of plant operations. In this respect the DES can hardly be considered a realistic assessment of environmental impacts, as specified by the National Environmental Policy Act (NEPA). Rather, the

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* All similar references are to pages of the DES.

Staff has strained to find indications of damage or potential damage from plant operations and has systematically rejected all evidence, no matter how clear the data may be, that the plant will not damage the aquatic environment.

We note in this regard that the Commission's proposed regulations for environmental considerations require a discussion of "probable" environmental impacts. Proposed Reg. §51.20(a). The DES does not analyze environmental impacts in terms of probable impacts. For example, the crucial conclusion on impact of the plant on striped bass populations refers to "a high potential" of damage and does not say whether or not this potential is probable. (v.) Furthermore the analysis that backs up this conclusion has even more "possibles", ("may", "could", "potential", etc.) than "probables."*

The bias principally occurs in Section V. D. 2 where the Staff analyzes the plant's potential for biological damage and concludes that such potential damage is unacceptable. Here the Staff rejects all data favorable to the Applicant's position. This is particularly surprising because, in the Indian Point 2 proceedings, the Staff consistently rejected subjective statements on environmental impacts offered on behalf of Applicant regardless of the qualifications of the persons making those qualitative judgments and asked that it be furnished with data. Now the Staff ignores the data.

Although many of these items are noted in the appendix, we will describe a few examples:

a. The Staff's inconsistent use of the results of New York University studies. The Staff relied on NYU data to show damage to phytoplankton by chlorine (V-63), and ignored NYU data on temperature tolerance of phytoplankton at Indian Point which showed no adverse effect, (Testimony of Gerald J. Lauer on Effect of Operation of Indian Point Units 1 and 2 on Hudson River Biota,

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* For example, see pages v item 2; v item 3; vi item 4(c); V-78 third par.; V=81 first par.; V-91 par. 2; V-95 par. 2; V-95 par. 3; V-95 para. 4; and V-96 par. 2.

October 30, 1972), choosing instead, to support its prediction of serious adverse effects on phytoplankton by data from unspecified plants under unspecified conditions (V-71).

b. In Table V-4 (p. V-47) the Staff fails to take into account extensive information obtained for the Applicant by NYU and supplied to Staff on the temperature tolerance of aquatic species found in the Hudson River. In choosing to ignore the NYU data, Staff has instead elected to rely on data garnered from sources other than specific studies of the Hudson River.

c. The Staff's treatment of the potential plant impact on American shad. Two years of daily counting and classification of fish collected from the Indian Point intake screens have established that rarely are shad collected from the screens. Two years of entrainment studies have failed to find any shad eggs entrained in the plant. Nevertheless, in several places the Staff states that the plant will have an adverse impact on American shad from impingement and entrainment. (V-78; V-91.)

B. Source of Bias Is Approach Contrary to Scientific Standards

The scientific and particularly the biological analyses contained in the DES reflect not only bias but are contrary to standard scientific principles: i.e., basing conclusions on all pertinent data. Examples are indicated throughout the appendix. Basically the emphasis of the DES on the mathematical biological model reflects a preoccupation with a new and untested technique without adequate recognition of its fundamental limitations. As noted above, the question of irreversibility of adverse impacts during the time necessary to carry out the study program is ignored.

The Staff's approach to the study program which, in effect, rejects the utility of standard biological research methods, also reflects this problem. The Staff concedes that no five-year research program no matter how competently designed and executed can satisfy the Staff's requirements. (V-103 to 104.) A more scientific approach would recognize that it is not necessary to understand every biological interaction in the ecosystem to analyze plant impact. Ecosystem measurements before and after startup of the plant should provide a sufficient indication for decision making.

3. The Staff Makes a Wrong Decision by Using Wrong Procedures

A. Unusual Burdens of Proof

The problem of rational decision making is compounded by the Staff's selection of the standards for the burden of proof. The Staff states that Applicant must "conclusively demonstrate" that operation of the Indian Point plant will not have an unacceptable adverse impact on the fisheries supported by the Hudson River. (V-97.) Where does the AEC Staff obtain the concept that this must be conclusively demonstrated? Nowhere in NEPA nor in the Atomic Energy Act is such an unusual standard set forth for environmental review. Furthermore, the fact that Applicant is being required to prove a negative makes the burden virtually impossible to meet.

The Staff is well aware of the fact that scientists do not talk in these terms. Applicant cannot present as a witness a responsible scientist who would ever say that something has been "conclusively demonstrated" not because our case is weak but because scientists don't use this language. Scientists generally speak in terms of confidence levels based on the range of data, and the ecological study program has been designed to reach such conclusions.

In summary the Regulatory Staff is saying that in the absence of Applicant's ability to conclusively demonstrate a negative proposition, the environmental decisions must be made on the basis of unproven but most conservative assumptions. This is not only legally wrong because it is not authorized by any statute, but it is also bad as a matter of public policy. Translated into action, this policy means that the environment must in every case be protected from all potential sources of damage regardless of cost or the value of the damage. This is not a policy enunciated by any act of Congress. If carried out in all governmental actions, it would create a serious misallocation of our resources, which we are all painfully learning are not unlimited.

Our nation has enough existing environmental problems which need attention that our efforts should not be diluted by premature decisions involving such a vast and irretrievable commitment of resources. Since a large number of problems exist which are not being addressed because of lack of funds, they should clearly have priority over eliminating hypothetical

potentials for environmental harm. In a community which is suffering from lack of adequate funds for hospital facilities, mass transit, drug problems, rodent control and many other similar matters, it seems indefensible to spend $38 million per year for cooling towers at the two units at Indian Point without the need having been established therefor.

B. Different Standards for the Environmental Problems of Cooling Towers

The problems of the Staff's approach are made even more acute when the alternative the Staff proposes has adverse environmental impacts of its own, i.e., natural draft cooling towers. Environmental impacts of this alternative cannot be "conclusively demonstrated" any more than can the environmental impacts of the present once-through cooling system. The Staff therefore "reverses its field". Gone are the most conservative assumptions when analyzing environmental impacts of cooling towers. In these sections, as noted in the appendix, the Staff based its analyses on conclusory statements and data much less definitive than the data it has rejected in analyzing the impact of the once-through cooling system.

Thus the decision is made on the basis of artificially constructed standards of proof rather than a careful analysis of the large quantities of available information on actual environmental impacts. In this case the result is a decision which is not only "environmentally conservative", but is very likely environmentally wrong. Applicant considers it terrible from a strictly environmental point of view to impose on the people of the Hudson Valley the irreversible and irreparable adverse environmental impacts of large cooling towers at Indian Point on the basis of the Staff's compounding of most conservative assumptions with respect to the once-through cooling system.

C. Decision Should Be Based on Analysis of Benefits and Costs

The decision on cooling towers should be made on the basis of a rigorous analysis of realistic benefits and costs. All decision making whether governmental or private is essentially made by balancing costs against benefits and this is precisely what the AEC has been ordered to do. (Calvert Cliffs' Coordinating Committee Inc. et al. v. USAEC, 449 F.2d 1109 [D.C. Cir. 1971].)

The Staff has failed to base its decision on this difficult analysis and has elected instead to base its decision on the principle that all adverse environmental impacts should be minimized. This is easier for the Staff, since it closely resembles its nuclear safety standard that radioactive releases should be kept as low as practicable.

Although the appendix to this letter notes examples of how the Staff has applied this concept, it is clearly revealed on Pages XI-46 to XI-48 where the Staff presents the summary and conclusions of biological impacts. On these pages the Staff assumes adverse impacts must be minimized without purporting here or anywhere else in the DES to weigh the real social costs of these adverse impacts. Plant mortality by itself is equated with social cost with no attempt being made to relate these impacts to aquatic populations having significant value to society, except to some extent in the case of striped bass, in which case there is no attempt to quantify the value to society of a diminution in the fishery. Quantifying commercial and recreational values of a fishery is not a new problem and the Federal Govenment has for many years had a Congressionally-approved method for doing this.

Furthermore, a proper benefit-cost analysis specifically requires a realistic assessment of the benefits and costs. The bias that permeates the DES, discussed above, makes a proper balancing impossible.

The result of the Staff's failure to perform a proper benefit-cost analysis results in imposing a large financial burden on the people of New York City and Westchester who will pay for the two cooling towers an amount properly estimated at not less than $38 million per year. It also imposes on the local community the serious, irrevocable, adverse environmental impact of the towers themselves. The benefit-cost analysis must contain a clear explanation of what they will receive for this money and environmental burden. The elimination of potential and hypothetical damage to aquatic resources, which have not been quantified in any meaningful way, would not appear to offer any reasonable explanation.

Very truly yours,

Carl L. Newman

Carl L. Newman
Vice President

Enc.

Connecticut Coastal Anglers Association

GROTON, CONNECTICUT

Director of Regulation
United States Atomic Energy Commission
Washington, D. C.

Dear Sir;

In regard to the Con-Ed application for license to operate power plants on the Hudson River, further study and investigation of the environmental impact of such construction and operation would seem imperative.

The cumulative effects - 20% to 60% reduction of striped bass larvae migrating past this area per year - of current power plant operation dictates that cooling towers should be installed not by the target date of 1978, but as soon as possible. Further, the impact on this major spawning and nursery ground by proposed projects such as Storm King Mountain must be considered.

The fishery spawned by the Hudson River is an invaluable sport and commercial asset. Therefore, urgent legislative and corporate action is necessary to conserve this natural resource.

Cordially,

Frank B. Holmgren

Frank B. Holmgren
Secretary