United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

PEP ER-76/177

APR 26 1976

Dear Mr. Knighton:

Thank you for your letter of February 23, 1976, requesting our comments on the draft environmental statement on the Selection of the Preferred Closed Cycle Cooling System at Indian Point Unit No. 2, Westchester County, New York.

Our comments are submitted according to the format of the statement or by subject.

Selection of Cooling Tower Design

An excellent review has been made of the relative merits of different cooling tower designs by the NRC staff which leads to the general conclusion that any of the systems could achieve the cooling function satisfactorily but with different costs, design requirements, and aesthetic impacts. Although the NRC staff has concurred in the applicant's selection of the NDCT as the preferred cooling tower design, the draft statement appears to lack a clear cut summary of reasons why the NDCT is the design of preference for the NRC staff as well as the applicant. The section on Evaluation of Program Activities, page 7-1, could appropriately be expanded in the final statement to summarize the reasons why the NDCT is preferred.

On page 3-14, the NRC staff notes that smaller sizes of natural draft towers could be possible for the site. This possibility is not evaluated further in the statement but would seem to merit further consideration if the visual impacts could be lessened through this means.

The NRC has made a commendable effort to project the future viewscape with the cooling towers in operation, through photographic exhibits. Although the draft statement indicates that local viewpoints have been solicited, we believe the review process will be enhanced if all local parties having a prime concern in the aesthetic

CONSERVE AMERICA'S ENERGY

ATTACHMENT 1

Save Energy and You Serve America!

impact of the cooling towers have had the benefit of these projected viewscapes. It would seem appropriate for the final statement to indicate to what extent these viewscapes have been made available for local comment.

Cooling Tower Impacts on Parks, Recreation Areas, and Historic Sites

Since various recreation facilities, parks, and historic sites are located within fifteen miles of the cooling towers, the impacts could best be discussed by proceeding radially outward from the cooling towers and identifying each park, recreation area, or historic site with an evaluation of visual impacts in each case. This would provide a better appraisal of the aesthetic impact of the cooling towers on recreational areas and historic sites than is now evident from the draft statement.

Parks at Plant Site

Page 5-39 mentions plans for a natural park area at the plant site and notes that the cooling towers will impact on the 80 acres designated for this purpose. If these plans had been discussed in another environmental statement, this should be referenced. Otherwise, the proposed park should be discussed in more depth, describing the facilities to be offered (parking, restrooms, picnicking), who could use it, and when it would be opened.

Cultural Resources

No mention is made in the draft statement to indicate that cultural resources at the construction site have been considered. The final statement on Indian Point Unit No. 3 indicated that contact had been established with the State Historic Preservation Officer and the National Advisory Council on Historic Preservation. The final statement for the closed cycle cooling system on Unit No. 2 should indicate what measures were taken as a result of these contacts and whether the previous arrangements adequately cover cultural resources in the cooling tower area for Unit No. 2.

To assure that the archeological potential in the area to be excavated is properly appraised, we recommend contact with the State Archeologist, Dr. Robert Funk, New York State Museum and Science Service, Albany, New York 12224.

Disposal of Excavated Materials

Construction of the proposed cooling system would require excavation of approximately 700,00 cubic yards of rock and unconsolidated material (page 3-4, paragraph 3.3). The only information on disposal of the excavated material is the statement that "the beach of Lent's Cove could also be used for delivery and disposal of material" (page 3-9, paragraph 1). However, no information is provided on the ultimate disposal site proposed for the excavated material, or on related environmental impacts. The present use of the beach at Lent's Cove is not discussed. The final statement should adequately address these matters.

Ground Water

Locations of the wells (page 5-68) should be shown on one of the maps, and typical magnitudes of rates of infiltration in areas of ground-water use should be provided. An indication of relations between the rate of water-table change and precipitation or other evidence of infiltration potential is needed for full impact evaluation.

Fish and Wildlife

Although we generally support the conclusions and recommendations contained in the environmental documentation, we are concerned that the differences in evaluation made by the NRC staff and the applicant could cause delays in the licensing process and interfere with the established schedule which requires termination of once-through cooling by 1979. The welfare of the fishery resources of the Hudson River should not be jeopardized by any delays which could be avoided. The final statement should give assurance that this schedule will be maintained.

Specific comments according to section and page are as follows:

Section 3.4.3, page 3-10: Asbestos fibers have been found to be carcinogenic to fish and humans. In view of recent adjudicatory hearings which have highlighted the potential hazards of Hudson River polychlorinated biphenyls (PCB's) to human health, we recommend that NRC require the use of wooden or plastic components (rather than asbestos-cement) in cooling towers at Indian Point.

Section 3.5.1, page 3-13: We support the staff's recommendation that the applicant use amertap balls, rather than chlorine, to clean the tubes in the condenser. This would greatly reduce the adverse effects of residual chlorine discharges on Hudson River biota, especially egg, larval, and juvenile fishes.

Section 5.1.3.3, pages 5-8 to 5-27: We commend the staff on its application of the ORFAD drift model to the Indian Point Unit No. 2 situation. The staff's modified ORFAD model represents a substantial improvement over the applicant's model. However, the credibility of staff conclusions is limited by the availability of only one year of on-site meteorological data. The staff should make additional model runs using more recent data, as they become available. These should include observations of on-site fog and cloud cover. Additional runs will enable the staff to better define the variability of local meteorological conditions and refine its predictions concerning salt deposition and botanical damage.

Figures 5-4 and 5-19 should be improved in the final statement for the following reasons:

1. It is unclear what scale (units) was used to denote radial distances from the cooling towers.

2. It is very difficult to read and properly interpret the estimated rates (salt deposition, fog, ice) in the immediate vicinity of the cooling towers.

3. The use of the index from one to five to indicate decreasing rates (salt deposition, fog, ice) is potentially confusing. Index values should increase as the estimated rates increase.

Section 5.5.2, pages 5-28 to 5-38: The staff has pointed out that the applicant's experimentally determined threshold for salt deposition (on hemlock, dogwood, and ash) may be in serious error (i.e., too low) for at least two reasons:

1. The possibility that trees in experimental chambers may have been affected by two pathways--gravitational deposition on leaf surfaces and entry of salt particles into stomata.

2. The importance of dose rates as opposed to total dose has not been conclusively demonstrated to be the critical factor causing damage.

In view of these potential errors and the importance of establishing accurate values for damage thresholds, and the dependency of overall environmental impact assessment on these thresholds, we recommend that NRC require the applicant to conduct more extensive and technically sound experiments designed to resolve the potential errors mentioned above. Unless these problems are resolved, there will continue to be a difference of opinion as to whether the botanical impacts are of primary concern or whether the aesthetic impacts are more important.

We hope these comments are helpful to you.

Sincerely yours,

Deputy Assistant Secretary of the Interior

Mr. George W. Knighton, Chief
Environmental Projects Branch No. 1
Division of Site Safety and
Environmental Analysis
Nuclear Regulatory Commission
Washington, D. C. 20555