

MAY 17 1973

**ENVIRON, FILE (NEPA)**

Note to D. R. Muller, Assistant Director for Environmental Projects, L  
THRU: G. W. Knighton, Chief, Environmental Projects Branch No. 1, L *SMAL*

COMMENTS ON THE FES FOR INDIAN POINT UNIT NO. 2 FROM EPA

In a letter dated April 2, 1973, R. W. Fri, Deputy Administrator of EPA, has commented on the FES for Indian Point Unit No. 2. A copy of this letter is enclosed. Many of the items commented on were discussed on March 21, 1973 with the Regional II Office of EPA in New York City. Details of this meeting have been summarized in a memo to you dated March 29, 1973. Responses to the comments are presented below.

- 1. A. EPA Comment - Violation of New York's water quality standards with regard to thermal loading, dissolved oxygen levels, and biological damage.
- B. Staff's Response - The Environmental Technical Specifications will require that applicable Federal, State, and local regulations, particularly with regard to chlorine, ammonia, and other chemical discharges, thermal discharges, and maintenance of acceptable dissolved oxygen concentration levels be met. These Technical Specifications will also include requirements for limiting releases and routine monitoring of effluents and for carrying out extensive biological surveillance and field studies by the applicant and to be reviewed by Regulatory Operations.
- 2. A. EPA Comment - Thermal considerations regarding the present New York State thermal criteria and the recommendations of changes of these criteria by a majority of the Federal Thermal Task Force members as described on page III-11 of the FES.
- B. Staff's Response - According to the Environmental Technical Specifications, the thermal discharges from Indian Point Unit No. 2 will have to meet Federal and State standards which are applicable throughout the operating life of the plant. After installation of a closed-cycle cooling system at Indian Point Unit No. 2, the thermal discharges from the blowdown should meet the recommendations of the Federal Thermal Task Force.
- 3. A. EPA Comment - Enactment of the FWPCA of 1972 requiring July 1, 1977 as the latest date for the installation of the best practicable control technology for all point sources rather than January 1, 1978 as stated in the FES.

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- B. Staff's Response - The January 1, 1978 date was stated before the enactment of the FWPCA of 1972 and is considered to be an outside date for a reasonable period of time required for construction of the closed-cycle cooling system and before which the ecological damage will not be irrecoverable. The ASLB in its initial decision will determine whether it agrees with the staff's recommendation to require such a cooling system. The applicant, of course, will have to comply with the law of the land in terms of meeting the date of installation of the closed-cycle cooling system used as the best practicable control technology under Section 301 of this Act.
4. A. EPA Comment - Interim plant operation with once-through cooling prior to operation with the closed-cycle cooling system with provisions for restricted operation at reduced power levels.
- B. Staff's Response - The Environmental Technical Specifications will limit releases and call for corrective action to be taken by the applicant to minimize ecological damage. This will include reduced power operation. In addition, the applicant will submit a report to the AEC by July 1, 1973 outlining a plan of action to reduce to a practicable level any detrimental effects and to provide for methods of mitigating damage such as by stocking the Hudson River during the interim period of plant operation.
- The staff also carried out a benefit-cost analysis for reduced power and submitted testimony on this subject at the ASLB hearing. A copy of this testimony was sent to the EPA Region II Office. The conclusion of this analysis indicated the economic cost of restricted operation during certain months of the year could not be balanced by the benefits of plant operation.
5. A. EPA Comment - Analysis of cumulative effects from other plants on the Hudson River.
- B. Staff's Response - This subject has been covered in detail by additional testimony submitted by the staff to the ASLB and the parties of the proceedings as part of the hearing record. As stated above, the analysis of the impact of operation of Indian Point Unit No. 3 is presently underway and the DES will include the cumulative effects of all three units on the environment. In addition, a section will be available for this DES that will include the extent of thermal discharges and the ecological damage primarily from entrainment of fish eggs and larvae from operation of all the plants on the river.

6. A. EPA Comment - The effluent from the steam generator blowdown treatment system may exceed the "as low as practicable" criteria of Appendix I to 10 CFR Part 50, if the same decontamination factors are used for the steam generator blowdown treatment that were used for the CVCS letdown treatment.
- B. Staff's Response - The assumptions used for the liquid source term calculations were different for the initial and modified systems. The source term in the FES was an early calculation which did not give proper credit for molybdenum and cesium removal in the primary coolant system. As a result, these concentrations were high in the steam generator blowdown as reported in Table III-6 of the FES.

The source terms presented for the modified system in Table III-7 are based on our current assumptions. For the modified system treatment of the steam generator blowdown from Unit No. 2 will reduce the radioactivity released to approximately 3.7 Ci/yr, including 1.7 Ci/yr from the steam generator blowdown.

If the steam generator blowdown is increased from our assumed 10 gpm to 50 gpm as indicated by the applicant, the radioactivity release in the plant liquid effluent from the modified system will increase to 4.2 Ci/yr including 2.1 Ci/yr from the steam generator blowdown. In Table III-7 the reported release was normalized to 5 Ci/yr to allow for operational occurrences and maintenance

The calculated doses from immersion and the food chain is less than 1 mrem/yr. On the basis of our evaluation, we calculate a dose of less than 1 mrem/yr from a yearly release of less than 5 Ci/yr. The staff concludes that the radioactive liquid waste treatment system meets the "as low as practicable" guidelines.

The DES for Indian Point Unit No. 3 will include the revised source term for Unit No. 2 and will include the total radioactive discharges with the corresponding radiological impact from all three units on the site.



M. J. Oestmann, Project Manager  
Environmental Projects Branch No. 1  
Directorate of Licensing

Enclosure:

Letter from EPA dated  
April 2, 1973

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DISTRIBUTION:

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*PDR*

*LPDR*