Docket No. 50-286

ENVIRON, FILE (NEPA)

Daniel R. Muller, Assistant Director for Environmental Projects, L

COMMENTS ON PRELIMINARY ACCEPTANCE REVIEW FOR INDIAN POINT NO. 3

PLANT NAME: Indian Point No. 3
LICENSING STAGE: OL
DOCKET NUMBER: 50-286
RESPONSIBLE BRANCH: Environmental Projects Branch No. 1
PROJECT MANAGER: M. J. Oestmann
DATE REQUEST RECEIVED BY CBAB: October 20, 1972
REQUESTED COMPLETION DATE: November 6, 1972
DESCRIPTION OF RESPONSE: Comments on Cost-Benefit section of
                                       Applicants report.
REVIEW STATUS: Complete as regards to cost-benefit analysis.

The Cost-Benefit statement of the applicant's environmental report
has been reviewed by Dr. Harold Berkson of the Cost-Benefit Analysis
Branch.

The applicant has followed the guidelines put forth in the May 1972
document prepared by the AEC and has compared various alternative
designs for their respective environmental impacts in terms of
relative costs and benefits.

Comments concerning specific issues are attached.

Original signed by
H. R. Denton

Harold R. Denton, Assistant Director
    for Site Safety
Directorate of Licensing

Enclosure:
As stated

cc: See attached page.

8111120823 721120
  ADOCK 05000286

OFFICE ▶							
SURNAME ▶							
DATE ▶							

Daniel R. Muller   - 2 -

cc: w/o enclosure
    A. Giambusso
    W. McDonald

cc: w/enclosure
    S. Hanauer
    J. Hendrie
    M. Spangler
    G. Knighton
    M. J. Oestmann
    H. Berkson

DISTRIBUTION
Docket File - 50-286 ✓
L - Rdg
L:AD/SS
L:CBAB

OFFICE ►	L:CB	L:CB	L:SS			
SURNAME ►	HBerkson:jab	MSpangler	HRDenton			
DATE ►	11/16/72	11/17/72	11/20/72			

Form AEC-318 (Rev. 9-53) AECM 0240

COST-BENEFIT STATEMENT
INDIAN POINT NO. 3
SPECIFIC COMMENTS

P. B.2.1-1, line 9

The applicant uses a discount rate of 9.75%. In order to achieve consistency of treatment in environmental statements, a discount rate of 8.75% is to be employed.

P. B.2.3-1, line 15

A discount rate of 8.75% is to be employed.

P. 1.3-1 to 6

Diagrams and maps illustrating the isotherms and cross-sectional areas in relation to the total width and depth of the river in addition to detailed configurations are necessary.

P. 1.1-2 and associated text

The total weight of fish lost should be that of the number of adult fish. This requires extrapolation from the weights presented (which are those of the juveniles caught on the screens) to the product of the numbers of fishes killed times their weight at maturity. This procedure is stipulated in the AEC cost-benefit guide of May 1972. The resulting changes in the values given in this table and in 1.1-2 would be in orders of magnitude. For example, striped bass loss is cited at 159 pounds representing 11,559 fish. A reasonable projection of the weight of this number of striped bass at harvestable size or at maturity is at least 11,559 pounds to more than 115,990 pounds. Total survival will not occur in nature, of course, but it should be possible to make a reasonable estimate of what the actual loss will be, in terms of harvestable fish. The potential loss is a better measure of severity of environmental impact than the data presented by the applicant.

The item "other" in this table assumes an average weight of one ounce per fish, however, all of the other species of fish in the table are cited to weigh between 1/20 and 1/5 of an ounce. The numbers of fish impinged thus are increased from 5 to 20 fold. The approximate number of fish impinged then becomes 55,000 to 220,000 fish rather than the 10,813 cited.

P. 1.2-2

Request documentation for their method of extrapolating the weight of food organisms to the weight of fish. They use a conversion factor of 1/1000 while the commonly accepted conversion factor between trophic levels is 1/10. This means that the conversion note between zooplankton and primary carnivores such as herrings and tomcod will be roughly 1/10 and between zooplankton and secondary carnivores such as striped bass and white perch the conversion rate will be 1/100. The loss of fish calculated from loss of food organisms must therefore be at least one order of magnitude greater than the applicant's estimate.

P. 1.2-3, 4-5

Even though they discuss entrainment losses of juvenile and larvae fish, they provide no estimates of what the losses would be. This information must be provided because this could be the largest single environmental cost of the facility. There should also be information concerning losses of fish eggs.

P. 1.3-9, Section on Fish Migration

Their allegations of no impairment to fish migrations needs far more support than is presented here. Details for each signifi- cant species along with illustrative maps or diagrams should be presented. It is difficult to believe that there will be absolutely no encumbrance to fish migration. This point is important.

P. 1.4-2

It is not clear whether the dilution factor includes river flow of receiving waters. If this is the case, it assumes perfect and instantaneous mixing. This, of course, is not the way it happens.