

ENVIRON. FILE (NEPA)

Docket No. 50-286

MAR 30 1973

DISTRIBUTION:
Docket File
EP-1 File
EP-1 Reading
RP Reading
MJOestmann, EP-1
GWKnighton, EP-1
DMuller, EP
NBrown, EP-1
RCDeYoung, PWR
HSpecter, PWR
TMCreless, EP
HDenton, SS
BGrimes, AAB

JKastner, RAB
WGammill, SAB
VBenaroya, ETSB
RPeck, OPS

A. Giambusso, Deputy Director for Reactor Projects, Directorate of Licensing

PROPOSED SCHEDULE FOR ENVIRONMENTAL IMPACT REVIEW FOR INDIAN POINT UNIT NO. 3

Submitted herewith for your review and forwarding to the Director of Licensing and the Director of Regulation for approval is a proposed schedule for environmental review on Indian Point Unit No. 3. A summary of the level C milestones is listed in Attachment A. A level B & C network with these environmental milestones is given in Attachment B. The level D network is shown in Attachment C (only 1 copy available and attached to original of this memo: Attachment C should be returned to M. J. Oestmann, Environmental Project Manager, when this schedule is approved). The Deputy Director for Technical Review approved this schedule March 7, 1973.

This schedule involves the use of Oak Ridge National Laboratory to prepare the EIS. The estimated date for issuance of the DES is May 31, 1973, providing the applicant supplies the environmental supplemental information needed in a timely fashion. The applicant has informed us that responses to the environmental questions will be delayed at least one month. The applicant also has to supply another supplement to the environmental report due originally on March 9, 1973. We are informed that this information will be a month late. Meanwhile, we are utilizing as much as possible material from Unit No. 2 hearings.

The FES is estimated to be issued September 7, 1973. The conclusions reached in the FES will be subject to the outcome of the Indian Point Unit No. 2 hearings, particularly the ASLB Initial Decision due on July 12, 1973. The schedule involves about nine months from the effective date when the laboratory team started its review, and is very tight. Much depends on the cooperation of the applicant to supply adequate information on time.

811120788 730330
ADOCK 05000286

OFFICE ▶					
SURNAME ▶					
DATE ▶					

Although only two team members at ORNL are the same for both Units Nos. 2 and 3, the team members for Unit No. 3 are in daily contact with those for Unit No. 2 for any consultation. This cooperation should be of considerable help in meeting the proposed schedule.

Original signed by
George W. Knighton

D. R. Muller, Assistant Director
for Environmental Project
Directorate of Licensing

cc: (w/o Attachment 3)
J. Hendrie, TR

Enclosures:

- Attachment A - Summary of Level "C" Milestones for Indian Point Unit No. 3
- Attachment B - Level B & C Network
- Attachment C - Level D Network (w/orig. only)

OFFICE ▶	L:EP-1	L:EP-1	L:EP			
SURNAME ▶	MJD MJoestman:mh	GWK GwKnighton	DRM DRMuller			
DATE ▶	3/27/73	3/30/73	3/30/73			

Docket 50-5
347

Docket Nos. 50-3
50-347
50-286

MAR 29 ENVIRON, FILE (NEPA)

A. Giambusso, Deputy Director for Reactor Projects, L

MEETING WITH MANAGEMENT OF CONSOLIDATED EDISON COMPANY RE POSITION TAKEN ON INDIAN POINT UNIT NO. 2

On March 22, 1973, Messrs. W. Cahill, Vice President and H. Woodbury, Executive Vice President of Environmental Affairs, of Consolidated Edison Company, and L. Trosten, Attorney with LeBoeuf, Lamb, Leiby, and MacRae Legal Firm, met with G. W. Knighton, Chief EPB-1, M. J. Oestmann, Environmental Project Manager, M. Karman, OGC and myself to discuss:

1. Both short-term and long-term methods to mitigate the environmental impact on the Hudson River, including a closed-cycle cooling system;
2. Environmental Study Program on the Hudson River;
3. Impact of other Plants on the Hudson River.

In addition Con Ed discussed plans for the next hearing session starting April 9, 1973; submission of the environmental report for Unit No. 1; questions from the site visit for Unit No. 3; and general comments regarding an upcoming meeting on March 27, 1973, on Technical Specifications.

Information obtained and conclusions reached from the meeting were:

1. Reconfirmation of Con Ed's position taken in the hearing, namely requesting a three-year extension beyond the January 1, 1978, date for installation of the closed-cycle cooling system.
2. Initiation of biological studies by the Central Hudson and Orange and Rockland utilities, which are part owners of the fossil plants on the Hudson River, and the EPC-ordered study for the Storm King Pumped-Storage Project for the next two years.
3. Information on alternative methods, including cooling towers, fish hatcheries, etc., to mitigate impacts, to be presented in the report required of Con Ed by July 1, 1973.

OFFICE ▶						
SURNAME ▶						
DATE ▶						

- 4. Con Ed informing the public through an open-house, advertisement, etc., of its position.
- 5. Con Ed applying for a RWPCAA water quality certificate and meeting with EPA.

Details of the meeting follow.

Original signed by
George W. Knighton *for*

D. R. Muller, Assistant Director
for Environmental Projects
Directorate of Licensing

Attachment:
Details of Discussion with
Management of Consolidated
Edison Regarding Indian Point
Unit No. 2

- DISTRIBUTION:
- Docket File
 - EP-1 Reading
 - ER-1 File
 - RP-Reading
 - RP-Files
 - MJOestmann, EP-1
 - GKnighton, EP-1
 - DRMuller, ADEP
 - AGiambusso, DDRP
 - MKarman, OGC
 - KKniel, PWR-2
 - MMcCoy, PWR-2
 - RBallard, ESB
 - HDenton, SS
 - RBoyd, ADDR
 - MErnst, RP
 - RCDeYoung, PWR

GRESS 063	OFFICE ▶	EP-1	EP-1	EP			
27/73	SURNAME ▶	MJOestmann: th	GKnighton	DRMuller			
	DATE ▶	3/28/73	3/25/73	3/29/73			

Docket Nos. 50-3
50-247
50-286

DETAILS OF DISCUSSION WITH MANAGEMENT OF CONSOLIDATED EDISON REGARDING
INDIAN POINT UNIT NO. 2

Consolidated Edison requested a meeting to clarify its position taken in the hearing on the environmental impact on the Hudson River. Items of discussion follow:

I. Open-House at Indian Point Site

Con Ed had an open-house meeting at the Indian Point Site the evening of March 21 in which about 175 persons attended. The intervenors appeared to be organized prior to the meeting and expressed concern regarding waste disposal and storage of radioactive material on the site with the possibility of contaminated ground-water affecting well water in the surrounding area. Woodbury discussed a possible moratorium on nuclear power plants in the area.

II. Agreement between AEC and Con Ed

Woodbury led much of the discussion and pointed out that we were in agreement that Unit No. 2 could not be a suitable device to operate in the peaking mode but is designed as a baseload plant. This subject was a point of contention raised by the intervenors.

III. Short-Term and Long-Term Alternative Methods on Protection of the Fishery

Woodbury summarized Con Ed's plans for short-term and long-term methods to mitigate environmental impacts during the interim period of plant operation and after (or in place of) the installation of a closed-cycle cooling system at Indian Point.

A. Short-Term Methods Discussed

1. Fish Hatchery

A fish hatchery is being considered in which the start-up date for development would begin in 1973 rather than in 1975 as originally planned. Con Ed plans to purchase fish

fry and fingerlings (2-1/2 - 5" long) for a hatchery and place them in the Hudson River at a location away from the site so as not to be affected by the intake structure. In addition, an Artificial Propagation Advisory Group was being established to serve to guide the fish hatchery program. Con Ed discussed the Federal Power Commission Storm King-Cornwall controversy and reported that a fish hatchery was proposed by Con Ed during the FPC hearing to replace any fish unavoidably killed by the project. Con Ed offered to furnish us with material on this subject. A witness from the Department of Interior, Bureau of Sport Fisheries testified that there was reasonable assurance that fish can be propagated by artificial means such as to maintain natural fish population levels. The fish could be cultured and then put in another location away from where the intake discharge system is located. Woodbury discussed some experience on fish hatcheries for striped bass.

2. Operation at Reduced Flows

To reduce impingement in the winter time when the river temperature is 40°F, Con Ed plans to operate the plant with 60% flow by means of a by-pass flow system. There is a possibility of considering reduced flows at other times of the year depending on the ambient river temperature. As the flow is decreased, the Δt °F across the condenser is increased. The applicant has to make sure the thermal plume will be in compliance with the New York State thermal criteria. If need be, power levels would also have to be reduced to be within the State criteria. Thus there is a tradeoff of reduced power versus the protection of the fish by reduced flow. Con Ed does not expect to operate at full load for some period of time after start-up and it feels that there should be no problem of meeting the NYS thermal criteria. Deicing loops may be used to dilute discharges to assure compliance.

3. Chlorination Treatment Procedure

Con Ed is looking into ways of reducing the amount and frequency of use of chlorine for treatment of the condensers. Chlorination is planned from May through October for one

hour three times a week for Unit No. 2 and the same for Unit No. 1 for a total of six hours per week. Dilution will assure concentrations will be less than 0.1 ppm. Plans are to reduce further the use of chlorine, particularly during the winter time.

4. Scheduling of Refueling and Maintenance

Con Ed is looking into the matter of scheduling refueling and maintenance work during the time of the year when the potential for impact is the greatest, i.e., fish migration and spawning period in the spring and early summer, and wintering of fish in the Hudson during the winter.

B. Long-Term Methods Discussed

1. Those mentioned above.
2. Air bubbler curtains at the intakes.
3. Common intake to reduce impingement effects. LaSalle, Inc., has a contract from Con Ed to look into this method as was required by the rescinding of the N.Y.S. Department of Environmental Conservation order of February 29, 1972, to shut down the pumps.
4. Closed-cycle cooling system.
5. Rapid sand filtration which is used in the northwest to filter out larger fish and crustaceans particularly at sewage treatment plants.
6. A pervious river dike which serves to filter out eggs and larvae. An air bubbler may also be used. Dr. Bell who was a witness in the Cornwall project has been looking into this device.
7. Use of the Ver Planck quarry (90' depth) to serve as an intake pool for withdrawing a selective layer of water into the plant to avoid organisms at different layers from getting into the plant intake.

The various alternatives will be described in the report to be submitted by Con Ed on July 1, 1973.

From this discussion, Con Ed is requesting an extension of three years beyond the January 1, 1978 date to look at these alternatives and to demonstrate that these methods will mitigate reduction of the impact on the fishery by plant operation. Furthermore, Con Ed wants to carry out the environmental and ecological 5-year study by Texas Instruments and the New York University to measure the impact. The staff presented comments on this program at the hearing and we also told Con Ed that it was an excellent program but we feel that we have sufficient confidence in our present knowledge to support our present position. As previously stated in the FES and the hearing, we feel that insufficient additional information of a precise nature could be gathered within a 5-year period to change our position from that based on today's information.

IV. The January 1, 1978 Deadline Date for a Closed-Cycle Cooling System

Cahill asked upon what bases the January 1, 1978 date was selected for the closed-cycle cooling systems to be in operation. We explained that much of this information was already in the hearing record. The major reasons were (1) the staff estimated that a 5-year period would allow for a reasonable time period to design, construct and test a closed-cycle cooling system and (2) the ecological impact was considered to be recoverable and not irreversible during the interim period of plant operation and (3) the urgent need for power outweighed the damage to the biota during the short-term to warrant plant operation.

V. Confidence of the Staff's Judgement on Magnitude of Impact

L. Trosten and W. Cahill questioned us regarding our opinions as to the degree of confidence we place on the models used to predict the magnitude of the environmental impact.

We countered by stating that we had as much confidence in our assessment as Con Ed had in its models. Con Ed was concerned about the uncertainty of information used in making our decision. Con Ed was also concerned if our assessment turned out to be wrong, what would the consequences be. We feel that there are different levels of assurance that the short-term and long-term methods discussed above could be used to predict the degree of effectiveness

to mitigate damage to the fishery. Thus Con Ed would like to obtain the three-year extension beyond January 1, 1978, to verify conclusions and look at the different alternatives available to assure with greater certainty that any one or any combination would be more suitable than cooling towers to mitigate damage to the fishery. Our position is that we made our decision with sufficient confidence that the time period up to January 1, 1978 was a reasonable one and extension beyond that date would result in a significant impact that we feel we can not tolerate. We discussed our balancing and weighing the various tradeoffs and made a decision as NEPA requires the AEC to do.

Con Ed also suggested that Dr. MacFadden, its consultant, and Dr. P. Goodyear, our ecologist, discuss the question of the time when the ecological damage will become irreversible. We did not encourage such a meeting at this time since this matter was already a part of the hearing record.

VI. Multiplants on the Hudson River

Con Ed asked us our opinion of the effect that the study made by Drs. Goodyear and Siman-Tov would have on our final conclusion in the FES. We told Con Ed that it substantiates and reinforces our position. Con Ed told us that the Orange and Rockland and Central Hudson utilities have initiated studies of impingement and entrainment which could result from operation of Bowline, Roseton and other plants on the Hudson River. Con Ed also told us about the status of the Cornwall project and has recently submitted a study plan to the FPC to start a monitoring program this summer to look at the Hudson River from Coxsackie to Tappan Zee Bridge. Trosten is to supply us with a copy of this study program. We learned about this program through Gordon Beckett, Technical Coordinator for the H. R. Policy Committee. We plan to submit a statement for the next hearing session starting April 9, 1973 regarding our present position relative to that taken in the FES in view of the fact that these other plants will also cause a severe impact on the river.

VII. The Water Quality Certification

Con Ed told us that it has applied for a Section 401 or Section 402 permit for discharges under the FWPCA of 1972. Con Ed has had

three meetings with the New York State Department of Environmental Conservation regarding this permit. We told them of our meeting with the Regional Office of EPA in New York on March 21. Con Ed has already been in contact with this Office.

VIII. Indian Point Unit 1 Environmental Report

We informed Con Ed that we only needed 15 copies of the ER for Unit No. 1 for a 30-day acceptance review. Con Ed plans to send us the ER by the end of April. A letter stating our plans will be sent by the LPM within the next few days.

IX. Technical Specifications for Unit No. 2

Woodbury and the EPM discussed some general comments on the proposed Tech Specs Con Ed submitted on March 1, 1973. We are to have a meeting with Con Ed on March 27, 1973 to discuss our comments.

X. Answers to Questions from our Site Visit on Unit No. 3

Knighton and Cahill discussed the problem of the time it will take for a submittal of responses from Con Ed to questions from the site visit. Con Ed will submit a supplement in one month and we plan to utilize all the material we have on Unit No. 2. The EPM will report to Con Ed which questions need a faster response than others in order to meet our schedule for issuance of the DES. Con Ed will try to supply responses as quickly as possible to those questions in which we have little or no information.

XI. Next Hearing Session - April 9, 1973

Con Ed will submit additional testimony at the next session dealing with cooling tower costs, and impacts of other plants on the river.