William J. Cahill, Jr.
Vice President

Regulatory File Cy.

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

May 14, 1974

Re: Indian Point Unit No. 3
Docket No. 50-286

Mr. George W. Knighton, Chief
Environmental Projects Branch No. 1
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Knighton:

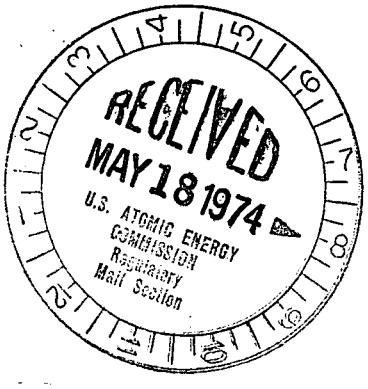
Attached for your information find copies of minutes of the Bimonthly Meetings on Hudson River Studies held on February 20, 1974 and April 16, 1974.

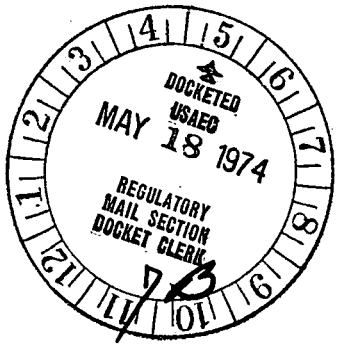
As per your request dated February 26, 1974, minutes of all future meetings will also be forwarded to you.

Very truly yours,

William J. Cahill, Jr.
Vice President

attach.





memorandum

April 9, 1974

TO: The Record

FROM: Martin Considine
Engineer, Biological Studies

SUBJECT: Bimonthly Meeting on Hudson River Studies
February 20, 1974

A meeting was held on February 20, 1974 at the Indian Point Visitors Center to discuss the progress of the Hudson River Ecological Studies. Presiding over the meeting was Mr. Woodbury, Executive Vice President of Consolidated Edison. Present at the meeting were:

Harry Woodbury	- Con Edison
Phillip Cota	- Con Edison
Deborah Wallace	- Con Edison
Leon Brooks	- Con Edison
Philip Durning	- Con Edison
Martin Considine	- Con Edison
Leon Paretsky	- Con Edison
Richard Rosa	- Con Edison
Gordon Beckett	- Hudson River Policy Committee
Bart Chezar	- NYS Atomic Space and Development Authority
Thomas Huggins	- Central Hudson Gas and Electric
William Smith	- Orange & Rockland Utilities
Jay Hutchison	- Orange & Rockland Utilities
Woodrow Crouch	- Power Authority State of N.Y.
William Waller	- New York University
Thomas Englert	- Quirk, Lawler and Matusky Eng.
Susan O'Connor	- Quirk, Lawler and Matusky Eng.
Thomas Fox	- Quirk, Lawler and Matusky Eng.
Bernard Pysz	- Texas Instruments Inc.
Daniel Metcalf	- Texas Instruments Inc.
Thomas Cannon	- Texas Instruments Inc.
Larry Milliger	- Texas Instruments Inc.
Thurman Grove	- Texas Instruments Inc.
Larry Bowles	- Texas Instruments Inc.

Con Edison Ecological Studies

Mr. Cannon, Technical Director, Texas Instruments Incorporated

Reports - The draft of the second Annual Hudson River Ecological study in the Indian Point area will be submitted to Con Edison by April 1, 1974. The Cornwall and related studies report will be submitted to Con Edison by April 30, 1974.

Tomcod - Seven to ten thousand tomcod were tagged during December and January. They will begin recovery this spring.

Rearing Study - A paper will be presented at the Northeast Conference on the survival of the reared versus wild striped bass in the Hudson River. They have found very good mixing of reared with wild striped bass.

Striped Bass Contribution to Atlantic Fishery - They are gearing up and work has just gotten under way.

Bioassay Study - All acute LD_{50} testing is completed on the slurry. The chronic testing (28 days) will be completed on March 20, 1974

Dr. Waller, Associate Research Scientist, New York University

1973 Entrainment Data - All river samples have been processed (sorted and identified). All data will be available to QLM and Texas Instruments by early March.

1973 Progress Report - The draft will be available by March 31, 1974. It will not contain comparison of Unit 1 and Unit 2 abundances.

Dr. Englert, Project Manager, Quirk, Lawler and Matusky Eng.

Modelling effort - The 1973 Texas Instruments Cornwall data is being incorporated. Data show significant striped bass spawning below Croton Point. The beach seine data shows the presence of stripers in the shoals in July. Numbers started to decrease in late August and early September. Stripers then appeared in Haverstraw Bay about two weeks later. NYU data is now being reviewed.

Central Hudson and Orange and Rockland Ecological Studies

Ms. O'Connor, Project Biologist, Quirk, Lawler and Matusky Eng.

Pitot Tube Sampling Device - QLM is still modifying the sampling device to collect samples from discharge pipe at Bowline Plant.

Reports - Report on Roseton will be out in the spring. Also, a report on Kingston Study will be out in the late spring.

Data - Central Hudson's larval data workup will be completed by March 15, 1974. Also, Lab analysis will be completed by March 15, 1974 for Orange and Rockland except for fecundity.

Atomic and Space Development Authority

Mr. Chezar, Aquatic Biologist, NYS Atomic and Space Development Authority

Site Feasibility - They are looking at the feasibility of siting a power plant or plants at Lloyd, New York in Ulster County at river mile point 78-82 north of Highway 299. His presentation was of a introductory nature with more extensive descriptions to be given at the next meeting.

Power Authority of the State of New York

Dr. Milliger, Manager/Technical Director, Kingston Study
Texas Instruments Incorporated

Report - Draft report on data collected for May through October 1973 will be out soon.

Site feasibility - Looking at three sites, Athens, Cementon and Quarry.

Martin Considine

MDC:sar

Con Edison memorandum

April 29, 1974

TO: The Record

FROM: Martin Considine
Engineer, Biological Studies

SUBJECT: Bimonthly Meeting on Hudson River Studies
April 16, 1974

A meeting was held on April 16th, 1974 at Central Hudson's Roseton Power Plant to discuss the progress of the Hudson River Ecological Studies. Presiding over the meeting was Mr. Woodbury, Executive Vice President of Consolidated Edison. Present at the meeting were:

Harry Woodbury	- Con Edison
Phillip Cota	- Con Edison
Deborah Wallace	- Con Edison
Leon Brooks	- Con Edison
Philip Durning	- Con Edison
Martin Considine	- Con Edison
Leon Paretsky	- Con Edison
Lew Scotton	- Con Edison
Rich Rosa	- Con Edison
Sheila Rich	- Con Edison
Jay Hutchison	- Orange & Rockland Utilities
Charles Rider	- Central Hudson Gas & Electric
Thomas Huggins	- Central Hudson Gas & Electric
Gerald Lauer	- New York University
Thomas Englert	- Quirk, Lawler and Matusky Eng.
Sue O'Connor	- Quirk, Lawler and Matusky Lab.
Robert Keegan	- Quirk, Lawler and Matusky Eng.
Bernard Pysz	- Texas Instruments Inc.
James Taylor	- Texas Instruments Inc.
Thomas Cannon	- Texas Instruments Inc.
Thurman Grove	- Texas Instruments Inc.
Gary Lawley	- Texas Instruments Inc.

The following were invited but no representative was able to attend:

U. S. Atomic Energy Commission
Hudson River Policy Committee

Con Edison Ecological Studies

Mr. Cannon, Technical Director, Texas Instruments Incorporated

Reports - The Indian Point Second Annual Ecological Report will be submitted to Con Edison in draft form in early May. This is a few weeks late because they are trying to incorporate all available data and make sure it is the highest quality possible. The Cornwall Annual Report will be submitted in draft form in early May. It will include the FPC Report, the Impact Report, and the Fisheries Report for 1973 on the longitudinal river survey. Also the striped bass rearing report will be submitted to Con Edison in draft form in late April.

Impingement - The most significant finding to date has been the relating of impingement to salt front intrusions during the winter season. Both Texas Instruments and Quirk, Lawler and Matusky have been looking at salt front movements in relation to impingement and fish distribution this spring and winter. The tidal and run-off fluctuations will be investigated in relation to influencing the salt front movements.

Fishery Field Programs - The longitudinal river survey was begun in April. The main interest right now is the spring population distribution in the Hudson River, the spawing runs and the egg and larval deposition. Work is continuing on mark-recapture of tomcod. The icthyoplankton survey has begun as part of the multiplant impact study. It will follow the striped bass spawning to get an accurate estimate of egg deposition in the Hudson River. Once the egg deposition period ends sampling will shift to the shoal areas. The beach seine survey will go from the Troy Dam to the George Washington Bridge to depict the distribution of yearling and older striped bass in the spring and the distribution of the young-of-the-year through the summer and fall. Mr. Woodbury indicated he expected to be asking Texas Instruments to extend their work into the lower river below the George Washington Bridge because eggs and larvae were found in the lower river in 1973 as were young-of-the-year.

Thurman Grove, Project Biologist, Texas Instruments Incorporated

Bioassay Study - The winter tests are completed and results show little or no toxicity on striped bass or white perch. The final report will be submitted to Con Edison within two weeks.

Striped Bass Contribution to Atlantic Fishery - They are using meristic characters, some scale sculpturing characters and some electrophoretic characters to accomplish this. They are now sampling in the Chesapeake Region and the fish are in the river with stripers just starting to run in the Delaware. Scales are being sent to Dr. Saila for his investigation of scale micro structure.

Dr. Lauer, Assistant Director, New York University

1973 Entrainment Data - They have completed all sample analysis of fish larvae samples, ichthyoplankton samples from both the plant and river except for some length frequency measurements. The writing is in its final form with only two sections still remaining. The report will be submitted some time in May.

Dr. Englert, Project Manager, Quirk, Lawler and Matusky Eng.

Modelling Effort - Graphs were presented which compared computer model predictions for striped bass distribution with time for 1973, with actual field measurements. Good agreement was found in both the egg and yolk-sac life stage for the river mile segment 40-50. A slight discrepancy was found with the post-yolk-sac larvae gear avoidance. Hatching rates, growth rates, migration habits and rates were discussed as possible contributors to the discrepancy and growth rates seemed to be the most likely answer.

Central Hudson and Orange and Rockland Ecological Studies

Ms. O'Connor, Project Biologist, Quirk, Lawler and Matusky Lab.

Surveys - The general ecological survey for both Central Hudson and Orange and Rockland are underway. Impingement testing has been ongoing from January.

Pitot Tube Sampling Device - It was tested at Bowline through the tomcod season with a few engineering problems still to be ironed out. The larvae table has two major purposes: First, to find out how many of the larvae in the discharge are alive and Secondly to help collect them without touching them for long term survival tests. Dr. Lauer will observe the QLM table in operation for application by NYU at INdian Point.

Sonar - Sonar traces on a transect off the Bowline Plant were shown as part of their work to determine the distribution of fish, mainly white perch, with respect to salt front movements. QLM is employing ways to use this information.

Atomic and Space Development Authority

Ms. O'Connor, Project Biologist, Quirk, Lawler and Matusky Lab.

Site Feasibility - Sampling began around the Lloyd site last July. It stopped for the winter and resumed this March. They are expanding the program to include more larval sampling stations and to include chemical analysis of bottom sediments in the study area.

Power Authority of the State of New York

Dr. Lawley, Manager/Technical Director, Kingston Study, Texas Instruments Incorporated

Dr. Lawley was introduced as new Manager replacing Dr. Milliger.

Martin Considine

MDC:sar

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14th