



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 9, 2013

MEMORANDUM TO: Melanie C. Wong, Chief
Environmental Review and Guidance
Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation

FROM: Michelle Moser, Aquatic Biologist *MM*
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SUBJECT: SUMMARY OF TRIP TO INDIAN POINT UNITS 1, 2, AND 3, JUNE 10,
2013, REGARDING ENDANGERED SPECIES ACT SECTION 7
CONSULTATION

Participants

U.S. Nuclear Regulatory Commission ("NRC")

Michelle Moser, Biologist

Dennis Logan, Biologist

National Marine Fisheries Service ("NMFS")

Julie Crocker, Biologist

Julie Williams, Office of General Council

Don Dow, Hydrologist

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Dara Gray, IPEC

Charles Caputo, IPEC

John Curry, IPEC

Gary Hinrichs, IPEC

Elise Zoli, Goodwin Procter, LLP

Larry Barnthouse, Environmental Services, Inc.

John Young, ASA Analysis & Communications

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Mark Mattson, Normandeau Associates, Inc.

Location

Indian Point Energy Center, Buchanan, New York

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Summary

Discussion of Indian Point's Draft Monitoring Plan for Atlantic and Shortnose Sturgeon

On Tuesday, June 10, 2013, staff from the NRC, NMFS, and IPEC met to tour the existing cooling system at Indian Point ("IP") Units Nos. 1, 2, and 3 and to discuss IPEC's draft monitoring plan for both Atlantic and shortnose sturgeon as required by reasonable and prudent measure #1 of NMFS's Final Biological Opinion for Continued Operation of IP. The draft monitoring plan describes potential monitoring procedures at three locations in IP's cooling system: the outer trash bars, the forebays, and the traveling screens.

Monitoring along Trash Bars

- Indian Point personnel and contractors ("Entergy") provided a summary of the proposed monitoring plan for Atlantic and shortnose sturgeon near trash bars, including dip nets and underwater scans.
- NMFS asked Entergy how they determined whether one survey per week would be sufficient. Entergy responded that the sampling frequency was based on available occurrence data and the likely survival time for an impinged sturgeon. Entergy also acknowledged that the available data is relatively old. Entergy agreed that after one year of data collected, the monitoring frequency could be reassessed.

Monitoring in Forebay

- NMFS expressed concern about entrapment of sturgeon within the forebay—the area between the trash bars and the traveling screens. The proposed monitoring plan did not address entrapment.
- Entergy provided an explanation why monitoring within the forebay would not be feasible. This area is not accessible due to welded grates on a concrete deck directly above the forebay. In addition, a boat could not safely enter the forebay, which is under a concrete deck supported by pilings.
- Entergy also stated that studies from the 1980s indicated that fish residence within the forebay was less than 12 to 24 hours. Fish in the forebay could either return to the river by swimming back out through the trash bars or be impinged and counted in the impingement monitoring.
- NMFS questioned whether sturgeon behave in a similar manner as the fish species used in the earlier studies to determine impingement efficiency. NMFS also asked if Entergy could conduct any additional studies to determine the likelihood of sturgeon remaining trapped within the forebay, which could lead to sturgeon health depreciation or emaciation. A possible solution posed by Entergy was to estimate and compare the overall fish condition (calculated from measured length and weight) of impinged and river sturgeon.

Monitoring at Traveling Screens

- Entergy provided a summary of the proposed monitoring plan for sturgeon impinged on traveling screens, which included calculating impingement rates for a 24-hour period once each week.
- NMFS asked whether fish travel down the trash sluice. Studies at IP conducted in the 1980s followed approximately impinged 8,000 fish. Of the fish washed of the traveling

screens into the sluices, approximately 98.5 to 99.5 percent of the fish went down the fish sluice and 0.5 to 1.5 percent went down the trash sluice.

- NMFS asked how Entergy selected the 24-hour observation period once each week. Entergy stated that 24 hours is a common unit used at the plant for various activities and it would allow the staff to easily estimate density and survival on a daily basis or extrapolate the data, as necessary, for other units of time.
- NMFS asked how Entergy planned to account for sturgeon that were dead prior to impingement as compared to impingement-induced mortality. Entergy stated that staff planned to inspect impinged fish for any acute injuries or other markings to indicate cause of death.

General Discussion of Entergy's Monitoring Plan

- NMFS and Entergy discussed the various pros and cons of the proposed monitoring frequencies. For example, NMFS stated that an increased monitoring frequency would help ensure that Entergy accurately accounts for any takes. Entergy noted that staff was trying to balance the trade-off between the benefit of additional information vs. the potential harm to the species from potentially invasive sampling methods. Entergy also noted that the plan was conservative in that increased sampling would result in smaller confidence limits and decrease the probability that the estimated IP take would exceed the take limits stated in the incidental take statement.
- NMFS asked if video surveillance was a possible solution to increase the monitoring frequency without any harm to the sturgeon from sampling methods. Entergy voiced concern over the accuracy and feasibility of video surveillance given the pattern recognition software that would be required to differentiate species in various positions and orientations in often turbid water.
- In the process and handling procedures, Entergy clarified that staff would photograph all tagged fish, whereas the draft monitoring plan indicated that staff would photograph only a portion of the tagged fish. Entergy also voiced concern that tagging could cause mortality or health-related impacts to sturgeon.
- Regarding use of electronic Passive Integrated Transponder (PIT) tags, Entergy noted that coded wire tags are New York Department of Environmental Conservation's (DEC) preference. Also, DEC does not have electronic tag detectors inside the security zone off IPEC. Installing and maintaining such detectors would probably require cooperation with the U.S. Coast Guard.
- Entergy asked that any tagging program clearly reflect NMFS concerns for the species and asked for clear direction from NMFS.
- NMFS noted that the monitoring plan should be devised to accomplish the following goals:
 - Accurately count all dead and live bodies or parts of bodies to ensure compliance with the incidental take permit.
 - Obtain information on where sturgeon are captured by the cooling system and the condition of captured sturgeon.
 - Verify the assumptions in the Biological Opinion.
 - Set triggers for initiation of Section 7 consultation.

- All parties noted that if IP exceeds the limits in the incidental take permit, NRC would reinitiate Section 7 consultation. As part of that consultation, NMFS would assess whether the sturgeon populations have increased or decreased and reconsider the limits in the incidental take permit, as appropriate.
- NRC requested to receive copies of any reports Entergy provides to NMFS. Entergy stated that they would specifically state this within the updated monitoring plan.
- For next steps, Entergy stated that they would be considering the comments discussed during the meeting and updating its draft monitoring plan. All parties expressed an interest in holding another in-person meeting after Entergy updates the monitoring plan.

Docket Nos. 50-247 and 50-286

cc: Listserv

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Memorandum to M. Wong from M. Moser dated October 9, 2013

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REGARDING ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

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