



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
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JUL 17 2014

Dara Gray
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, Suite 1
Buchanan, New York 10511

Dear Ms. Gray,

This is to follow up on a meeting held at our office on July 1, 2014 regarding the “Proposed Draft Monitoring Plan for Indian Point Energy Center Take of Atlantic and Shortnose Sturgeons by Impingement at Cooling Water Intakes, Revision 2” dated June 2014. Here we address several issues you requested we look into at the meeting.

Availability of Shortnose and Atlantic sturgeon for studies

At the meeting, we discussed the potential for use of native shortnose and Atlantic sturgeon for establishing retention time of fish impinged at the trash bars and for establishing collection efficiency in impingement sampling. At this time NMFS does not have a supply of sturgeon that could be used for these purposes. We are not opposed to you communicating with permitted sturgeon researchers or facilities to inquire about availability of deceased sturgeon for these purposes. If you are able to secure a source of deceased fish, we will need to review your proposed use of the fish prior to deploying the fish in the river. It is possible that new permits or modifications to existing permits may be necessary before such fish could be used for these studies. If the fish originate outside the Hudson River, you will need to be able to confirm the absence of disease or contaminants that could be introduced to the river. We are also not opposed to a certain percentage of deceased shortnose and Atlantic sturgeon captured during impingement sampling being used for these purposes. However, until the pilot testing is completed, we cannot identify a percentage of collected fish that would be appropriate for this testing.

Use of “surrogate species” for establishing retention time

You indicated that deceased white catfish and striped bass would be available for use to establish retention time on the trash racks. If shortnose or Atlantic sturgeon are not available for this study, we agree that using white catfish and striped bass would provide a reasonable “worst case” retention time. We expect, given the lack of scutes which we expect would provide greater protection to sturgeon from scavengers, that retention time for white catfish and striped bass may be shorter than for shortnose or Atlantic sturgeon. We look forward to reviewing your proposal for establishing retention time of fish impinged at the trash racks.



Documenting non-sturgeon species during impingement sampling

As discussed previously, we strongly encourage Entergy to implement procedures for documenting the number and condition of all fish captured during impingement monitoring. Valuable insights on the effects of IP operations on sturgeons' ecosystem and the success of the traveling screens and fish return system can be gained by recording information on all fish collected during impingement monitoring. Such information would be particularly valuable as no impingement monitoring has occurred since the current screening system became fully operational. Information on the number and condition of other species collected during impingement sampling may be useful in understanding more about the impingement of shortnose and Atlantic sturgeon. We encourage you to consider recording at least basic data on the other species that are being collected including the number and condition of these fish. While we believe that the best solution would be for you to recorder species and condition of all fish captured during all days and hours of impingement sampling, we recognize the additional costs and resources, including deployment of additional biologists, which this may entail. As such, for the purposes of obtaining additional information relevant to listed sturgeon, we would be satisfied with you recording information on non-sturgeon species for a subset of the total sampling time (e.g., one 24-hour period per week or 8-hours per sampling day, distributed between daylight and nighttime sampling). Please do not consider this our position on whether such a sampling plan would be sufficient for obtaining information for other purposes.

Necropsy

As discussed at the meeting, the condition of some collected sturgeon may not be suitable for necropsy. The intention of requiring necropsy of dead sturgeon is to determine if impingement caused or contributed to the animal's death. Entergy should include as part of the standard operating procedures for the impingement sampling, a proposal for "scoring" the condition of each sturgeon collected to assess its condition (e.g., ranging from alive with no apparent injury and swimming in the proper orientation to dead with advanced decomposition) and, if dead, to estimate how long it has been deceased. The plan should identify the characteristics of individuals that would be appropriate for necropsy and the parameters that would be part of any necropsy. After reviewing this plan we will work with you to identify individuals or facilities that would be qualified to carry out necessary necropsies.

IP1 Trash Bars

At the meeting, we discussed the condition of the Unit 1 trash bars and you shared a copy of Dryden Diving Co., Inc.'s March 27, 2014 report. As discussed, we recognize that if there is no potential for impingement of sturgeon at the IP1 trash racks, then requiring monitoring at the IP1 trash racks may not be reasonable or appropriate. However, the March 27, 2014, report talks about the trash rack as if bars do remain, albeit "totally consumed by corrosion." In addition, it notes that wire mesh has been added over the remaining bars and extends three feet into the intake tunnel. It is not clear how large the mesh is, how much clearance there is between the bottom of the mesh and the top of the mud line, among other things. Without more information on the specific condition of the racks, including the wire mesh and any other added elements, what the dimensions and configuration of the remaining parts may be, as well as what the spacing is between any remaining bars, and wire mesh size, we do not have an adequate basis to conclude that it is appropriate to remove the requirement to monitor at the IP1 racks. Please provide photographic and other descriptive evidence to us to fully describe the state of the racks

so that we can review the information and consider monitoring requirements for the trash bars and the IP1 forebay. We also note that the Dryden Diving report indicates seemingly extensive mud deposits in front of the IP1 intake. Please provide us information regarding any proposals to remove this mud or other actions that Entergy will be taking in response to this report.

Forebay Studies

We will defer further comment on the requirements related to the IP1 forebays until we have the information requested above related to the racks. Monitoring the IP2 and IP3 forebays is required to provide information on the behavior of sturgeon in the area between the trash bars and the traveling screens. This information is important to determine the factors that are contributing to impingement of sturgeon at the traveling screens. As discussed in Section 7.1.2 of our January 2013 Biological Opinion, it is possible that fish that pass through the trash bars become stressed, tired or disoriented when trying to find an escape route. Even if through-rack velocity is not high enough to preclude fish from exiting the area, they may have difficulty finding a way out, especially if there is debris in front of the trash bars. Information presented by Fletcher (1990) on the length of time that fish spent in the area between the trash racks and the Ristroph screens supports this idea; for marked striped bass during a release-recapture study at Indian Point, the mean time spent in the area between the trash racks and Ristroph screens prior to observation in the fish return sluice was 9.73 hours. The information presented in Fletcher (1990) indicates that fish could remain in this area long enough to become stressed, tired or disoriented which would increase the likelihood that they would become impinged on the Ristroph screens or captured in the traveling buckets.

At the meeting you asked whether collection efficiency studies could substitute for the forebay studies. Without reviewing your proposal for documenting collection efficiency we can not definitely answer that question.

Other Comments

It is our understanding that you will be providing us with a revised monitoring plan by July 22, 2014. You have indicated that this plan will contain more detailed standard operating procedures and implementation schedules. We look forward to reviewing that plan. In advance of you submitting that plan to us for review, we recommend that you carefully read the Reasonable and Prudent Measures (RPMs) and Terms and Conditions provided with our January 2013 Opinion (see pages 132-137) and ensure that the monitoring plan has fulfilled all of the requirements of the RPMs and Terms and Conditions. As discussed at the July 2 meeting, in order for any of the requirements to be changed, we will need to amend the Incidental Take Statement (ITS). If you have additional questions regarding the steps necessary to amend the ITS, please let us know. All requirements in the ITS must be satisfied unless and until they are removed or modified.

I understand the July 2 meeting was productive. We appreciate you and your team traveling to meet with us. Substantial progress towards implementing a monitoring program that fulfills all of the requirements of the January 2013 ITS has been made. We look forward to monitoring beginning this Fall. Please contact Julie Crocker (Julie.Crocker@noaa.gov or 978-282-8480) if you have any questions regarding this correspondence. As noted in previous correspondence, Please note that while we continue to coordinate with NYDEC staff regarding the

implementation of a monitoring plan at Indian Point, these comments are solely NMFS and are not reflective of any NYDEC position on this matter.

Sincerely,



David Gouveia
Acting Regional Administrator
for Protected Resources

EC: Crocker, Dow -F/NER3
Williams – GCNE
Nieder – NYDEC
Grange, Logan, Moser – NRC

PCTS: NER-2012-619