



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
55 Great Republic Drive  
Gloucester, MA 01930-2276

MAY 3 1 2013

Kathleen M. Moser  
Assistant Commissioner  
New York State Department of Environmental Conservation  
Office of Natural Resources, 14<sup>th</sup> Floor  
625 Broadway  
Albany, New York 12233-1010

Dear Ms. Moser,

We completed formal ESA section 7 consultation with the Nuclear Regulatory Commission on January 30, 2013, by concluding that the continued operation of Entergy's Indian Point Units 2 and 3 (IP2 and IP3) at the Indian Point Nuclear Generating Station in Buchanan, New York, is not likely to jeopardize the continued existence of shortnose sturgeon or any Distinct Population Segment (DPS) of Atlantic sturgeon. The January 2013 Opinion replaces an Opinion issued by us in 2011 on the effects of operations of IP2 and IP3 pursuant to proposed renewed operating licenses on shortnose sturgeon. You sent a letter dated March 25, 2013, to the NRC requesting that the January 2013 Opinion be "rescinded, reconsidered and modified;" and you sent us a copy of that letter to our attention. We have reviewed the information provided in your letter and want to clarify some of the issues raised in it.

"Otherwise lawful activity"

You state that because the continued operation of IP2 and IP3 in once-through cooling mode for an additional 20 years does not meet New York State's water quality regulations, the continued operation of IP2 and IP3 cannot be considered an "otherwise lawful activity," and we should not have issued an Incidental Take Statement with our Biological Opinion.<sup>1</sup> "Incidental take" is defined in our regulations implementing section 7 as "takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or the applicant." (50 C.F.R. 402.02). The final rule promulgating the section 7 regulations explains that "otherwise lawful activities" are "those actions that meet all State and federal legal requirements except for the prohibition against taking in section 9 of the Act." (51 FR 19926, 19936; June 3, 1986). According to the ESA, we must issue an ITS once we have determined that an agency's action, and any taking incidental to it, are not likely to jeopardize the species' continued existence. (See Section 7(b)(4) ("the [NMFS] shall provide... a written statement"). In issuing an ITS, we are not required to make a determination about the lawfulness of the Federal action, and we did not make any such determination in our January 2013 Opinion or ITS. My letter transmitting the Opinion and ITS to

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<sup>1</sup> Your letter referenced section 10 of the ESA regarding issuance of incidental take permits. However, we issued the Opinion and ITS pursuant to ESA section 7 and its implementing regulations, not section 10. Relevant statutory provisions include 7(a)(2), 7(b)(4), and 7(o)(2), and are implemented through regulations at 50 C.F.R. part 402.



the Nuclear Regulatory Commission merely restated the regulatory and statutory terms and should not be taken to mean that we made a determination regarding whether the operation of Indian Point facilities is an “otherwise lawful activity.”

#### Consultation with the State

In your letter, you state that NMFS was required to consult with the State prior to issuing the Opinion and ITS and that NMFS breached its Cooperative Agreement<sup>2</sup> with the New York State Department of Environmental Conservation (DEC). We disagree. It appears that you have mistakenly interpreted the phrase you quote from section 7(a)(2) of the ESA. By omitting a portion of the text in section 7(a)(2), you seem to have mistakenly applied the language regarding coordination with states during the critical habitat designation process to section 7 consultations. Nowhere in the ESA is there a requirement to consult with a state prior to issuance of a Biological Opinion. The language in 7(a)(2) states, “Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded or carried out by such agency (hereinafter in this section referred to as an ‘agency action’) is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation with affected states, to be critical...”. The phrase “habitat determined..., after consultation with the states, to be critical” refers to the requirement in section 4(b)(5) to provide notice and opportunity for comment to relevant states regarding a proposed critical habitat regulation. Provision 1(f) of the Cooperative Agreement between NMFS and DEC references the consultation process “for the determination of critical habitat” and states that “the parties agree to exchange biological and other data as necessary to facilitate *such determination*” by NMFS. Given the section 7 consultation with NRC regarding Indian Point has nothing to do with the determination of critical habitat for listed species, and the Cooperative Agreement’s provision reflects the section 4(b)(5) requirement to provide states notice and opportunity to comment on critical habitat proposals, we do not believe we have breached the letter or spirit of section 7 or the Cooperative Agreement by not requesting your review of this Opinion.

Despite the fact that we were not required to consult with the State before issuing the 2013 Opinion, we did in fact provide an opportunity for your input on the first Opinion. During the development of the 2011 Opinion on the effects of relicensing of IP2 and IP3 on shortnose sturgeon, NRC and Entergy requested review of the draft Opinion. When DEC also requested a copy of the draft, we provided one to you. At that time, you requested that we not complete the section 7 consultation until issues related to the relicensing, including the WQC and SPDES permit, were resolved. Your comment letter contained no comments on the substance or technical merits of that 2011 Opinion or ITS, including the requirement for a monitoring plan. Because NRC, the action agency, wanted to complete the consultation, we went ahead and did so.

We do not disagree that DEC has regulatory authority to issue SPDES permits, including for IP2 and IP3. Because the ESA and its implementing regulations require monitoring and reporting of the course of the action and its incidental take (see ESA section 7(b)(4) and 50 C.F.R. §402.14(i)), the ITS requires the development and implementation of a plan for monitoring incidental take at IP2 and IP3. As you know, since the impingement monitoring requirement was removed from the

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<sup>2</sup>We note that NMFS has previously informed the State that the Cooperative Agreement does not currently cover Atlantic sturgeon and that NMFS and staff at DEC have agreed to resolve issues with the Agreement during the upcoming annual review cycle.

SPDES permit for IP2 and IP3, no impingement monitoring has taken place at IP2 or IP3 since 1990. Your letter claims that DEC will only be given an opportunity to review the plan after NRC and NMFS have agreed on the content. However, there is no language in the ITS indicating this. We would welcome the opportunity to confer with DEC prior to approving any monitoring plan for the facility and intend that DEC involvement and comment would be part of the process. We apologize if this intent was unclear and for any subsequent misunderstanding. We are currently in the process of reviewing Entergy's initial draft monitoring plan, which we understand was transmitted to NYDEC at the same time it was transmitted to NMFS. We understand that you have concerns about the impact of impingement monitoring on species other than sturgeon. We are committed to minimizing effects of monitoring on other species; however, we believe that current information on impingement and other sources of "take" is necessary to monitor the effect of IP2 and IP3 on listed sturgeon and that the only way to obtain that information is through a robust monitoring program at the intakes.

#### The estimate of incidental take

You disagree with the method we used to determine the number of shortnose and Atlantic sturgeon likely to be taken at IP2 and IP3. As you know, no impingement monitoring has taken place since 1990. Changes in the status of sturgeon species and changes in plant operations have taken place since that time. Our take estimates are based on several assumptions that are outlined in the Opinion. In addition to other methods, we used a "correction factor" to account for increased water withdrawal that Entergy reports began after 1990 and will continue into the future. You state that established science does not support the use of a water correction factor, citing two reports (EPRI 2003 and Nieder 2010). You also state that our own Biological Opinion did not find any relationship between water use and impingement data and reference pages 74 and 82. The figure on page 74 plots monthly water usage (2001-2008) and Entergy's prediction of shortnose sturgeon impingement; in the Opinion we determined that Entergy's prediction was not the best available estimate of likely future shortnose sturgeon impingement. The figure on page 82 plots the actual number of Atlantic sturgeon impinged at Indian Point from 1976-1990 as well as monthly average flows. It is unclear what text you are referring to on those pages as nowhere in the Opinion do we make a determination that there is no relationship between water use and impingement of sturgeon.

We have reviewed both reports you reference in your letter. Neither report appears to analyze species-specific impingement at a facility in comparison to increases in water withdrawal over the same time period (i.e., comparing the number of individuals of a particular species impinged at a single facility as water withdrawal volume changes over time). Both reports note that the amount of water withdrawn is only one factor in determining the amount of impingement. We agree with that assessment and note that in our assessment of impingement we consider time of year, species life history, seasonal distribution and other factors that may affect the number of individuals impinged over time. In the Opinion we also discuss other estimates of impingement at Indian Point and present our rationale for the method we used for predicting future impingement.

You state that the use of this "correction factor" results in a greater number of sturgeon to be taken rather than protected. In the "Effects of the Action" section of the Biological Opinion we establish, based on the best available information, the number of shortnose and Atlantic sturgeon, likely to be adversely affected (in this case, impinged) by the continued operations of IP2 and IP3. We then determine if the proposed action is likely to jeopardize the continued existence of any species. As required by 50 CFR 402.14, when we conclude that an action and the resultant incidental take of

listed species is not likely to jeopardize the continued existence of a listed species, we provide an ITS that exempts that incidental take. The risk of underestimating take is that we could use a number of impingements in our jeopardy analysis that was too low and that could cause us to determine the action was not likely to jeopardize the species, when if we had used a more accurate number we may have made a different determination. We are not clear what you mean by saying that our take estimate results in a higher number of sturgeon being taken rather than protected. The incidental take statement does not determine how many sturgeon are taken, that number is determined by the action itself. The required monitoring measures serve to protect the species by ensuring that reinitiation is triggered if the number of individuals projected to be taken is exceeded or if new information is discovered that points to an effect not considered in our consultation.

#### Essential Fish Habitat conservation recommendations

You are correct in noting that in the NMFS Essential Fish Habitat consultation with NRC regarding the proposed relicensing of IP2 and IP3, we included a conservation recommendation to minimize effects on EFH. That conservation recommendation stated that NRC and Entergy should, “[i]mplement the best available practicable technology [BAT] to mitigate impingement, entrainment, and thermal impacts. The BAT for Indian Point would be reconfiguring the facilities by replacing the once-through cooling system with a state-of-the-art, closed-cycle design.” However, as noted in that letter, the letter was issued pursuant to the Fish and Wildlife Conservation Act and the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act). Neither shortnose or Atlantic sturgeon have designated EFH and, therefore, the EFH consultation did not consider habitat specifically for those species. Further, the consultation mandates of the ESA and the Magnuson Act are different. Recommendations made by NMFS to minimize effects to EFH are just that—recommendations. Under the ESA section 7 consultation provisions, we must analyze the effects of the proposed action and may require measures to be implemented under limited circumstances, as explained below.

We agree that, as a general matter, closed cycle cooling is likely to minimize impingement and discharge of thermal effluent compared to once through cooling. However, operation of Indian Point with closed cycle cooling was not the federal action proposed and therefore not the subject of the consultation. As noted in our cover letter transmitting the January 2013 Opinion to NRC, we have not completed any analysis of effects of closed cycle cooling or other alternatives on listed sturgeon.

You claim that we did not require any Reasonable and Prudent Measures to minimize the amount or extent of incidental take and claim this is in contradiction to ESA Section 7(b)(4)(C)(ii). As noted at 50 CFR §402.14, RPMs, along with the terms and conditions that implement them, cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes. While making modifications to the cooling water system at IP2 and IP3, including conversion to closed cycle cooling, could result in a reduction in impingement of listed sturgeon, requiring the modification of the cooling water system through the installation of closed cycle cooling would not fit within the allowable scope of an RPM as it would involve changes to the basic design of the proposed action and would involve more than a minor change to the proposed action. For these reasons, we could not require conversion to closed cycle cooling as an RPM. Additionally, we are not aware of any other measures that could be implemented at IP2 and IP3 that would serve to minimize take that would meet the definition of Reasonable and Prudent Measures (i.e., that would not result in more than a minor change to the proposed action).

We disagree that we have required no measures to minimize the amount or extent of incidental take. We have required that Entergy develop and implement a monitoring and handling plan for impinged sturgeon. One of the goals of this plan will be to minimize mortality of sturgeon impinged. This will therefore, reduce lethal take.

Most importantly, the RPMs require monitoring of impingement of sturgeon at the intakes. As noted previously, since 1990 no monitoring has occurred at IP2 and IP3 traveling screens and no monitoring has ever occurred at the trash bars or in the forebays. As previously discussed, monitoring of take is required by the ESA. Impingement monitoring is necessary and appropriate: It will serve to verify assumptions made in the Opinion and will ensure that we have the necessary information to reinitiate consultation if the exempted amount of take is ever exceeded in the future. We understand that you have concerns about potential impacts of impingement monitoring on other species. However, we note that most other operational nuclear power facilities carry out routine impingement and entrainment monitoring programs, and we believe that a monitoring protocol can be developed that provides the necessary information on impingement of sturgeon while minimizing impacts to other species. We look forward to working with your staff as the monitoring plan is developed.

#### Lack of Atlantic sturgeon abundance estimates


You are correct in stating that when completing the Biological Opinion we had neither a quantitative abundance estimate of the New York Bight DPS as a whole or recent impingement data for Atlantic sturgeon at IP2 and IP3. We agree that the impingement data available to use is decades old. This lack of recent impingement data is one reason why we have required such rigorous monitoring of the intakes in our Incidental Take Statement. The ESA requires the use of the best available scientific information (see Section 7(a)(2)) and also requires we issue a Biological Opinion with ITS if take is anticipated (see Section 7(b)(4)). It is not an option under the ESA to refrain from issuing a Biological Opinion or ITS because of a lack of specific information or lack of certainty in that information and/or because the available information is "old." In the Biological Opinion, we clearly state all the assumptions we have relied on to generate our take estimate. We also present our analysis of the best available information on the status and trends of the New York Bight DPS. In the Opinion, we determined that the estimated amount of mortality was not likely to result in an appreciable reduction in the likelihood of the survival or recovery of the species.

#### Conclusion

Based on the information presented in your letter, we do not intend to reinitiate the consultation with NRC on the effects of the continued operation of IP2 and IP3. As noted in previous documents, if modifications to the intakes are required as part of any SPDES or 401 Water Quality Certificate issued in the future or operating licenses issued by NRC, we expect that consultation will be reinitiated and a new Biological Opinion produced. We understand that your office is in receipt of a copy of Entergy's proposed monitoring plan. We would appreciate working with your staff to minimize effects to other species from monitoring impingement of sturgeon. We also understand that you received a letter from Entergy in response to your March 25, 2013 letter to NRC. While we do not agree with some of its characterizations of the Biological Opinion/ITS, we chose not to address those issues here. If you have any questions about the Biological Opinion or ITS in light of that letter, we would be happy to discuss them with you. Please contact Mary Colligan, Assistant Regional Administrator for Protected Resources (978-281-9116 or Mary.A.Colligan@noaa.gov),

with any additional concerns regarding our consultation with NRC or to discuss the proposed monitoring plan.

Sincerely,

  
for John K. Bullard  
Regional Administrator

EC: Crocker, F/NER3  
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