



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

November 27, 2017

Ms. Kimberly B. Damon-Randall  
Assistant Regional Administrator for Protected Resources  
National Marine Fisheries Service  
Greater Atlantic Regional Fisheries Office  
55 Great Republic Drive  
Gloucester, MA 01930-2276

SUBJECT: REQUEST FOR AMENDED INCIDENTAL TAKE STATEMENT AND  
CONCURRENCE WITH "NOT LIKELY TO ADVERSELY AFFECT"  
DETERMINATION FOR ATLANTIC STURGEON CRITICAL HABITAT RELATED  
TO INDIAN POINT ENERGY CENTER, UNITS 2 AND 3 LICENSE RENEWAL

Dear Ms. Damon-Randall:

On October 13, 2017, the U.S. Nuclear Regulatory Commission (NRC, the staff) met with staff of the Greater Atlantic Regional Fisheries Office of the National Marine Fisheries Service (NMFS) pursuant to Section 7, "Interagency Cooperation," of the Endangered Species Act of 1973, as amended, to discuss the NRC's ongoing license renewal review for Indian Point Energy Center, Units 2 and 3 (IP2 and IP3).<sup>1</sup> In addition to NRC and NMFS staff, representatives of Entergy Nuclear Indian Point 2, LLC; Entergy Nuclear Indian Point 3, LLC; and Entergy Nuclear Operations, Inc. (collectively, "Entergy") and the New York State Department of Environmental Conservation (NYSDEC) participated in the meeting (referred to as the consultation meeting in this letter). Topics of discussion included whether reinitiation of Endangered Species Act, Section 7 consultation is appropriate and Entergy's implementation of sturgeon monitoring required by the terms and conditions of the NMFS's January 30, 2013, biological opinion and incidental take statement.<sup>2</sup> During the consultation meeting, the NRC agreed to provide the NMFS with a letter that (1) describes its views as to whether any of the Endangered Species Act, Section 7 consultation reinitiation criteria apply under current circumstances, (2) addresses the final critical habitat designation for the New York Bight distinct population segment of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), and (3) requests an amended incidental take statement based on current information concerning IP2 and IP3. This letter fulfills that commitment.

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<sup>1</sup> U.S. Nuclear Regulatory Commission. Summary of October 13, 2017, meeting with the National Marine Fisheries Service related to Indian Point Nuclear Generating Units No. 2 and 3 license renewal. November 9, 2017. ADAMS Accession No. [ML17298A544](#).

<sup>2</sup> National Marine Fisheries Service. Biological Opinion for Continued Operations of the Indian Point Nuclear Generating Unit Nos. 2 and 3, Pursuant to Existing and Proposed Renewed Operating Licenses. January 30, 2013. 163 p. ADAMS Accession No. [ML13032A256](#).

## I. Endangered Species Act, Section 7 Consultation Reinitiation Criteria

The NMFS's and U.S. Fish and Wildlife Service's joint regulations at Title 50 of the *Code of Federal Regulations* (50 CFR) 402.16, "Reinitiation of Formal Consultation," include criteria which require reinitiation of formal consultation where discretionary Federal involvement or control over the action has been retained or is authorized by law. During the consultation meeting, the NRC committed to providing the NMFS with a written discussion of its views on whether any of the reinitiation criteria currently apply to IP2 and IP3. Each of the four reinitiation criteria and the staff view on whether they apply to IP2 and IP3 is discussed below.

### a. Title 50 of the Code of Federal Regulations 402.16(a)

"If the amount or extent of taking specified in the incidental take statement is exceeded."

The NRC has no information indicating that the amount or extent of incidental take specified in the 2013 incidental take statement has been exceeded at IP2 and IP3. Therefore, the 50 CFR 402.16(a) criterion does not currently apply to IP2 and IP3.

### b. Title 50 of the Code of Federal Regulations 402.16(b)

"If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered."

For the purpose of this letter, the NRC defines "the action" as the operation of IP2 and IP3 through the end of their proposed license terms. As discussed during the consultation meeting, since NMFS issued the 2013 biological opinion, Entergy has provided new information concerning the Indian Point Energy Center Unit No. 1 (IP1) trash racks. Namely, the IP1 trash racks have almost completely deteriorated to the point that incidental take of sturgeon is no longer likely to occur at the trash racks. Because of this deterioration, effects to listed species would be less than what NMFS contemplated in its 2013 biological opinion. Therefore, the 50 CFR 402.16(b) reinitiation criterion does not apply or require the NRC to take action at this time. Nonetheless, in Section II of this letter, the NRC requests that the NMFS amend the 2013 incidental take statement to account for the condition of the IP1 trash racks and the associated reduction in the level of anticipated incidental take.

### c. Title 50 of the Code of Federal Regulations 402.16(c)

"If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion."

During the consultation meeting, participants discussed whether certain events have modified the action in a way that would require reinitiation of formal consultation under 50 CFR 402.16(c). Participants discussed the following: (1) the NYSDEC's issuance of a renewed State Pollutant Discharge Elimination System (SPDES) permit<sup>3</sup> and (2) the agreement between Entergy, the State of New York, and other signatories to permanently cease operations at IP2 and IP3 prior

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<sup>3</sup> New York State Department of Environmental Conservation. State Pollutant Discharge Elimination System (SPDES) Discharge Permit NY0004472. Issued April 24, 2017. Effective May 1, 2017. ADAMS Accession No. [ML17138A236](#).

to the end of the previously requested 20-year license renewal term (referred to as the “closure agreement” in this letter).<sup>4</sup>

Concerning the first event, the renewed SPDES permit, the NYSDEC staff explained during the meeting that the renewed permit, as well as the NYSDEC’s awarding a water quality certification under Section 401, “Certification,” of the Clean Water Act, requires no equipment or operational changes to IP2 and IP3’s circulating water systems or cooling-water intake structures. Entergy also reiterated these facts in an October 27, 2017, letter to NRC and NMFS.<sup>5</sup> In that letter, Entergy confirmed that under the renewed SPDES permit and water quality certification, Entergy will continue to operate the IP2 and IP3 cooling water intake structures under historic (volumetric) flow rates and that scheduled refueling outages will remain as they were under the prior administratively continued SPDES permit through the IP2 and IP3 retirement dates. Accordingly, the renewed SPDES permit and water quality certification do not effectively modify the action.

The second event that could modify the action is the Indian Point closure agreement. In accordance with the closure agreement, on February 8, 2017, Entergy submitted to the NRC amendments to its pending license renewal application. These amendments modified the proposed term of the renewed licenses from 20 years for each unit to periods ending April 30, 2024 (for IP2), and April 30, 2025 (for IP3).<sup>6</sup> The closure agreement specifies that IP2 and IP3 cease operations by April 30, 2020 and April 30, 2021, respectively. However, the closure agreement allows that if New York State determines that an emergency exists by reason of war, terrorism, a sudden increase in the demand for electric energy, or a sudden shortage of electric energy or of facilities for the generation or transmission of electric energy, New York State and Entergy may mutually agree to extend the operation of IP2 and IP3 to no later than April 30, 2024 (IP2) and April 30, 2025 (IP3). Thus, the timeframe specified in Entergy’s amendments would allow IP2 and IP3 to operate for 4 years beyond 2020 and 2021, respectively, in the event that the State determines an emergency exists as specified in the closure agreement.

Although the closure agreement and Entergy’s February 8, 2017, amendments modify the action, the effects of a shortened renewal period on the listed species or critical habitat would be less than the effects that the NMFS contemplated in its 2013 biological opinion. The shortened license renewal period would result in similar types of impacts, but would reduce the magnitude of impacts (i.e., cumulative incidental take). Accordingly, the 50 CFR 402.16(c) criterion does not apply or require the NRC to take action. Nonetheless, in Section II of this letter, the NRC requests that the NMFS amend the 2013 incidental take statement to account for the shortened license renewal period and the associated reduction in the level of cumulative incidental take.

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<sup>4</sup> New York State Governor, New York State Department of Environmental Conservation, New York State Department of Health, New York State Department of State, Office of the Attorney General of the State of New York, New York State Department of Public Service, Entergy Nuclear Indian Point 2 LLC, Entergy Nuclear Indian Point 3 LLC, Entergy Nuclear Operations Inc. Indian Point Agreement. January 9, 2017. Available at <<https://www.riverkeeper.org/wp-content/uploads/2017/01/Indian-Point-Closure-Agreement-January-8-2017.pdf>>.

<sup>5</sup> Goodwin Procter LLP. Letter from E. Zoli, Goodwin Procter, to B. Beasley, NRC, J. Crocker, NMFS, and J. Williams, NMFS. Subject: Reinitiation of consultation and final BMP relating to the 2013 BiOp/ITS for Indian Point. October 27, 2017. ADAMS Accession No. [ML17300A180](#).

<sup>6</sup> Entergy Nuclear Operations, Inc. Letter from A. J. Vitale, Entergy, to NRC. Subject: Amendment to License Renewal Application – Reflecting Shortened Renewal Terms for Units 2 and 3. February 8, 2017. ADAMS Accession No. [ML17044A005](#).

d. Title 50 of the Code of Federal Regulations 402.16(d)

“If a new species is listed or critical habitat designated that may be affected by the identified action.”

On June 3, 2016, the NMFS published a draft rule in the *Federal Register* (FR) that proposed to designate critical habitat for the Atlantic sturgeon.<sup>7</sup> On September 13, 2016, the NRC requested a conference under the provisions of 50 CFR 402.10, “Conference on Proposed Species or Proposed Critical Habitat,” and asked for the NMFS’s concurrence with the staff’s determination that continued operation of IP2 and IP3 through the end of the proposed license renewal terms “may affect, but is not likely to destroy or adversely modify” proposed critical habitat for the New York Bight distinct population segment of Atlantic sturgeon.<sup>8</sup> The conference continued until the NMFS issued a conference report on August 31, 2017.<sup>9</sup> In its report, the NMFS concluded the following:

“[t]he continued operation of Indian Point 2 and 3 will result in habitat alterations that may affect features 2, 3, and 4 in the Hudson River. However, we have determined that any effects on the value of the habitat to the conservation of the species, that its ability to support reproduction and recruitment of the New York Bight DPS [distinct population segment] of Atlantic sturgeon, are either extremely unlikely to occur or would be so small that they could not be meaningfully measured, detected, or evaluated. Therefore, effects to the proposed critical habitat for the New York Bight DPS are insignificant or discountable. In sum, the effects of the action are not likely to adversely affect critical habitat proposed for the New York Bight DPS of Atlantic sturgeon.”

On August 17, 2017, the NMFS published a final rule designating critical habitat for the New York Bight distinct population segment of Atlantic sturgeon.<sup>10</sup> The rule became effective September 18, 2017. The IP2 and IP3 action area overlaps with a portion of the designated critical habitat in the Hudson River. Therefore, under Section 7(a)(2) of the Endangered Species Act and the reinitiation criterion of 50 CFR 402.16(d), it is appropriate for the NRC staff to consider whether the action may affect the newly designated critical habitat. This criterion appears to apply to IP2 and IP3 and warrants reinitiation of the Endangered Species Act, Section 7 consultation with respect to the newly designated habitat. Accordingly, Section III of

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<sup>7</sup> 81 FR 35701. National Marine Fisheries Service. Endangered and threatened wildlife and plants; designation of critical habitat for the Gulf of Maine, New York Bight, and Chesapeake Bay Distinct Population Segments of Atlantic sturgeon; proposed rule; request for comments. *Federal Register* 81(107): 35701-35732. June 3, 2016.

<sup>8</sup> U.S. Nuclear Regulatory Commission. Letter from K. Folk, NRC, to K. Damon-Randall, NMFS. Subject: Request for Section 7 conference for Indian Point Nuclear Generating Unit Nos. 2 and 3 due to proposed rule to list Atlantic sturgeon critical habitat in the Hudson River. September 13, 2016. ADAMS Accession No. [ML16250A276](#).

<sup>9</sup> National Marine Fisheries Service. Letter from K. B. Damon-Randall, NMFS, to B. Beasley, NRC. Subject: Conference Report – Proposed Indian Point Relicensing. August 31, 2017. ADAMS Accession No. [ML17243A315](#).

<sup>10</sup> 82 FR 39160. National Marine Fisheries Service. “Endangered and threatened species; designation of critical habitat for the endangered New York Bight, Chesapeake Bay, Carolina and South Atlantic distinct population segments of Atlantic sturgeon and the threatened Gulf of Maine distinct population segment of Atlantic sturgeon.” *Federal Register* 82(158):39160-39274. August 17, 2017.

this letter requests the NMFS's concurrence with the NRC staff's "not likely to adversely affect" determination.

## **II. Request for Amended Incidental Take Statement**

As previously referenced, the NMFS issued a final biological opinion and incidental take statement for IP2 and IP3 on January 30, 2013. With this letter, the NRC requests that the NMFS revise the incidental take statement to reflect current information concerning the early retirements of IP2 and IP3, current condition of the IP1 trash racks, and monitoring plans for the various components of the IP2 and IP3 cooling water intake structures (i.e., the forebays, IP2 and IP3 trash racks, and IP2 and IP3 Ristroph screens) as follows.

### IP2 and IP3 Early Retirements

Under the previously described closure agreement, Entergy will permanently cease operations at IP2 and IP3 no later than April 30, 2020 and April 30, 2021, respectively, unless Entergy and the State of New York mutually agree upon a later date under limited circumstances. In any event, operations must cease on or before April 30, 2024 (IP2) and April 30, 2025 (IP3). Accordingly, if the NRC issues the renewed licenses, they would authorize Entergy to operate IP2 and IP3 through April 30, 2024, and April 30, 2025, respectively.

Based on this information, the NRC requests that the NMFS revise the incidental take statement to reflect the shortened license renewal period. The NRC also requests that the NMFS make conforming adjustments to the cumulative incidental take limits specified in the incidental take statement for shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon.

### Condition of IP1 Trash Racks

According to Entergy, the IP1 trash racks have almost completely deteriorated. In its October 27, 2017, letter, Entergy stated that it provided confirmatory sonar images of the deterioration to the NMFS. Entergy's letter also stated that the NMFS advised Entergy that it is not reasonable to anticipate sturgeon impingement on the IP1 trash racks given the current condition of the trash racks and assuming that Entergy does not repair or replace the trash racks. Entergy's October 27, 2017, letter confirms that Entergy will not repair or replace the IP1 trash racks prior to or following IP2 and IP3's closure.

Based on this information, the NRC requests that the NMFS revise the incidental take statement to remove incidental take limits associated with the IP1 trash racks as well as to eliminate associated monitoring requirements specified in the incidental take statement's terms and conditions.

### IP1, IP2, and IP3 Forebay Monitoring

During the consultation meeting, the NMFS indicated that based on its review of a feasibility report that Entergy had submitted to the NMFS, no additional forebay monitoring is necessary at IP1, IP2, or IP3. In its October 27, 2017, letter, Entergy stated that it will revise the draft biological monitoring plan to reflect the elimination of forebay monitoring.

Accordingly, the NRC requests that the NMFS revise the incidental take statement's terms and conditions to remove requirements associated with forebay monitoring.

### IP2 and IP3 Trash Rack Monitoring

During the consultation meeting, the NMFS and Entergy discussed trash rack monitoring at IP2 and IP3. Entergy explained its current trash rack inspection schedule and procedures. The NMFS proposed that during its regularly scheduled inspections, Entergy or its contractors also perform systematic inspections for sturgeon. In its October 27, 2017, letter, Entergy confirmed its expected trash rack inspection schedule as well as its commitment to include sturgeon monitoring during those inspections (as proposed by the NMFS). Entergy also stated that it would report inspection results and undertake sturgeon handling in a manner consistent with Revision 4 of Entergy's draft sturgeon monitoring plan.<sup>11</sup>

To the extent necessary, the NRC requests that the NMFS revise the incidental take statement to reflect the above changes in planned IP2 and IP3 trash rack monitoring.

### Ristroph Screen Monitoring

Entergy's October 27, 2017, letter describes a consensus approach, which was developed by Entergy and NYSDEC after the consultation meeting, to monitoring potential sturgeon impingement at the IP2 and IP3 Ristroph screens. Entergy proposed that the environmental consulting firm Normandeau Associates, Inc. perform sturgeon monitoring for two-to-three days per week through a tank-based impingement monitoring system during the months of April, May, September, and October. Normandeau would perform the monitoring until it reaches a cumulative total of 50 days of monitoring for IP2 and IP3 in 2019 and an additional 50 days of monitoring for IP3 in 2020. Thus, approximately 100 total days of monitoring would occur prior to IP2 and IP3 shut down. To accommodate the NYSDEC's concerns for excessive holding mortality of fragile, non-Endangered Species Act species, Normandeau would cease monitoring on any day or portion of a day in which it concludes, in its professional judgement, that either there is a realistic potential for impingement of more than 1,000 non-Endangered Species Act fish per day in total or more than 500 clupeids per day. In such instances, Entergy would add makeup monitoring days during the designated months or in the following year, where reasonably practicable.

To the extent necessary, the NRC requests that the NMFS revise the incidental take statement to reflect the above changes in planned IP2 and IP3 Ristroph screen monitoring for impingement.

### **III. Request for Concurrence with "Not Likely to Adversely Affect" Determination**

The NRC staff has reviewed the final Atlantic sturgeon critical habitat rule and finds that the NMFS's determination and associated analysis contained in the August 31, 2017, conference report supports a "not likely to adversely affect" determination for the final designated critical habitat. The final critical habitat designation in the Hudson River did not substantially change from the proposed designation, and the NMFS issued the conference report after the publication of the final critical habitat designation. Therefore, the NRC staff concludes that the proposed

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<sup>11</sup> Normandeau Associates, Inc. Letter from M. Mattson, Normandeau, to K. Damon-Randall, NMFS. Entergy/Indian Point: Impingement Monitoring Plan for Sturgeon, Revision 4. April 4, 2017. ADAMS Accession No. [ML17129A296](#).

Normandeau Associates, Inc. Letter from M. Mattson, Normandeau, to K. Damon-Randall, NMFS. Replacement Pages for Entergy/Indian Point: Impingement Monitoring Plan for Sturgeon, Revision 4. April 28, 2017. ADAMS Accession No. [ML17122A054](#).

action, continued operation of IP2 and IP3 through the end of the proposed license renewal terms, is not likely to adversely affect critical habitat designated for the New York Bight distinct population segment of Atlantic sturgeon. You can find analysis supporting the NRC's "not likely to adversely affect" determination in (1) NRC's biological evaluation,<sup>12</sup> which the NRC transmitted to the NMFS with the staff's September 13, 2016, request for conference, and (2) the NMFS's August 31, 2017, conference report.

The NRC staff requests the NMFS's concurrence with the "not likely to adversely affect" determination in accordance with Section 7(a)(2) of the Endangered Species Act.

#### **IV. Sturgeon Monitoring Plan**

During the consultation meeting, Entergy explained that it requires the NMFS's final approval of the biological monitoring plan by the time that Entergy must acquire the tanks essential for monitoring the Ristroph screens. The meeting participants agreed that the biological monitoring plan should be finalized and approved by February 1, 2018, and no later than April 15, 2018, to accommodate this schedule.

Accordingly, the NRC requests that the NMFS confirm and memorialize its approval of Entergy's biological monitoring plan either in the revised incidental take statement or in the accompanying transmission letter.

#### **V. Conclusion**

Should you need to discuss the requests made in this letter or any other matters related to IP2 and IP3, please contact Briana Grange, aquatic biologist, by phone at 301-415-1042 or by e-mail at [briana.grange@nrc.gov](mailto:briana.grange@nrc.gov).

Sincerely,

*/RA/*

Benjamin Beasley, Chief  
Environmental Review and NEPA Branch  
Division of Materials and License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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<sup>12</sup> U.S. Nuclear Regulatory Commission. Evaluation of Impacts to Proposed Critical Habitat for the Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*), Indian Point Nuclear Generating Unit Nos. 2 and 3 Proposed License Renewal. September 2016. ADAMS Accession No. [ML16250A276](#).

SUBJECT: REQUEST FOR AMENDED INCIDENTAL TAKE STATEMENT AND CONCURRENCE WITH "NOT LIKELY TO ADVERSELY AFFECT" DETERMINATION FOR ATLANTIC STURGEON CRITICAL HABITAT RELATED TO INDIAN POINT ENERGY CENTER UNIT NOS. 2 AND 3 LICENSE RENEWAL

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