

INDIAN POINT AGREEMENT

This agreement (“Agreement”), which includes Schedule 1, Exhibits A through N and Appendix I attached hereto and incorporated herein, is made as of the 9th day of January, 2017 (the “Signing Date”), by and among the following (collectively referred to as the “Parties”): the State of New York (“NYS”); the Office of the Attorney General of the State of New York (the “AG”); the New York State Department of Environmental Conservation (“NYSDEC”); the New York State Department of Health (“NYSDOH”); the New York State Department of State (“NYSDOS”); the New York State Department of Public Service (“NYDPS” and, together with NYS, NYSDEC, NYSDOH, and NYSDOS, the “NYS Entities”); Riverkeeper, Inc. (“Riverkeeper”); Entergy Nuclear Indian Point 2, LLC (“ENIP2”); Entergy Nuclear Indian Point 3, LLC (“ENIP3”); and Entergy Nuclear Operations, Inc. (“ENOI” and, together with ENIP2 and ENIP3, “Entergy”). Simultaneous with the signing of this Agreement by the NYS Entities, the AG, and Entergy, Riverkeeper is executing the letter constituting Appendix I to this Agreement, by which it agrees to each of the provisions contained in this Agreement, Schedule 1, and the Exhibits.

INTRODUCTION AND BACKGROUND

ENIP2 owns one operating nuclear powered steam generating station (“IP2”) at the Indian Point site in the Village of Buchanan, New York, ENIP3 owns a second such station (“IP3”) at the same location, and ENOI operates both stations. IP2 and IP3, together with all activities necessary to support IP2 and IP3, are sometimes collectively referred to herein as “Indian Point.” ENIP2, ENIP3, and ENOI hold current, effective facility operating licenses (“OLs”) from the United States Nuclear Regulatory Commission (“NRC”) for IP2 and IP3.

In 2007, ENIP2, ENIP3, and ENOI applied to the NRC for renewal of the IP2 and IP3 OLs for an additional 20 years, and they are currently engaged in proceedings before the NRC (including the Atomic Safety and Licensing Board (“ASLB”)) for such renewal (the “NRC Proceedings”). The docket numbers for the NRC Proceedings are 50-247-LR and 50-286-LR. The AG and Riverkeeper, among others, have been participating in the NRC Proceedings. They have been admitted as intervenor parties and have raised procedural and substantive objections in the NRC Proceedings to the relicensing of IP2 and IP3.

NYSDEC, Riverkeeper, ENIP2, and ENIP3, among other individuals and entities (including ENOI with respect to (ii) below), are parties to consolidated, mandatory adjudicatory proceedings before a panel of NYSDEC Administrative Law Judges (the “ALJs”) relating to (i) certain NYSDEC-Staff proposed modifications to the renewed State Pollutant Discharge Elimination System (“SPDES”) Permit for Indian Point, and (ii) NYSDEC Staff’s proposed denial of Entergy’s application for a Water Quality Certificate (“WQC”) under Section 401 of the Federal Clean Water Act (“CWA”) (the proceedings relating to (i) and (ii) collectively referred to as the “NYSDEC Matter”) for purposes of the IP2 and IP3 OL renewals. ENIP2 and ENIP3 hold a current, effective SPDES permit and WQC.

ENOI, ENIP2, ENIP3, and NYSDOS have been engaged in proceedings and other actions relating to compliance by Indian Point with the Federal Coastal Zone Management Act of 1972 (“CZMA”), in the context of IP2 and IP3 OL renewal. The CZMA issues involving Indian Point and IP2 and

IP3 OL renewal that are being or have been addressed by NYSDOS and are pending before the National Oceanic and Atmospheric Administration (“NOAA”) and the U.S. District Court for the Northern District of New York are referred to as the “CZMA Matter.”

The Parties, as relevant to the particular proceedings and actions in which they are involved, now wish to enter into an agreement to resolve various issues relating to (a) the cessation of operations at Indian Point, (b) the CZMA Matter, (c) the NRC Proceedings, and (d) the NYSDEC Matter.

TERMS OF AGREEMENT

In consideration of the premises and the mutual agreements hereinafter set forth, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties, intending to be legally bound and intending for this Agreement to represent a final and fully enforceable settlement agreement, hereby agree as follows:

1. With respect to permanent cessation of operations:

- a. IP2 shall permanently cease operations no later than April 30, 2020, and IP3 shall permanently cease operations no later than April 30, 2021 (collectively the two dates, with such extensions as are provided for in this Agreement, are referred to as the “Retirement Dates”); provided, however, that if NYS 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, the operation of IP2 may be extended upon the mutual agreement of NYS and Entergy, but in no event beyond April 30, 2024, and the operation of IP3 may be extended upon the mutual agreement of NYS and Entergy, but in no event beyond April 30, 2025, in accordance with applicable law and regulatory requirements. Nothing in this Paragraph 1 affects Entergy’s rights and obligations under tariffs of the New York Independent System Operator, Inc. (“NYISO”) governing large generator retirements.
- b. (i) No extension to address a condition or circumstance described in Subparagraph 1.a shall exceed two years in duration.

(ii) Further, there shall be no extensions to address a condition or circumstance described in Subparagraph 1.a which exceed a total of four years for each of IP2 and IP3, meaning, for the avoidance of doubt, that no such extensions shall be granted beyond April 30, 2024 for IP2 and beyond April 30, 2025 for IP3.

(iii) (a) NYS and the AG shall each have the right under this Agreement and (b) Riverkeeper shall have the right pursuant to this Agreement and Appendix I, respectively, to seek enforcement of the provisions of Subparagraphs (b)(i) and (b)(ii) of this Paragraph 1.

(iv) Notwithstanding the foregoing provisions of this Subparagraph 1.b, the restrictions in Subparagraphs (b)(i) and (b)(ii) and the rights conferred in Subparagraph

(b)(iii) are expressly subject to any order issued by the United States Secretary of Energy pursuant to Section 202(c) of the Federal Power Act.

- c. On or before February 8, 2017, Entergy shall file with NRC an amendment to its pending license renewal application for Indian Point Unit 2 and Unit 3 to update the proposed term of the renewed licenses from 20 years for each unit to the periods ending April 30, 2024 for Unit 2 and April 30, 2025 for Unit 3. If Entergy reasonably concludes that the NRC intends to treat the filing described in the preceding sentence other than as a routine amendment to the license renewal application, i.e. as requiring re-noticing or re-docketing, Entergy may withdraw the filing. Entergy commits to confer with Riverkeeper's NRC counsel and the AG prior to taking the actions described in this Subparagraph 1.c.
 - d. Notwithstanding the foregoing or anything to the contrary in this Agreement, Entergy may, in its sole discretion, temporarily or permanently cease operations of IP2 and/or IP3 at any point in time prior to the dates set forth herein (a) in accordance with applicable regulatory requirements, (b) on the date that coincides with the end of the respective unit's then current fuel cycle, and/or (c) without notice to any Party if ENOI reasonably determines cessation of operations is necessary or required to ensure the protection of the health and safety of employees, residents, the surrounding community, and/or the environment.
2. On or before February 8, 2017, Entergy shall, pursuant to Section 50.82(a)(1)(i) of Title 10 of the Code of Federal Regulations, notify the NRC of the proposed permanent cessation of operations of IP2 and IP3 on the dates set forth in Paragraph 1 (the "Notice to the NRC"). The Notice to the NRC shall include an explicit statement that such cessation of operations is dependent on successful implementation of the terms of this Agreement and issuance of renewed OLs for IP2 and IP3 as provided for in this Agreement. The Parties shall not oppose the renewal of each of the OLs. Within the applicable notice periods, and consistent with this Agreement, Entergy shall, pursuant to the NYPSC's Order in NYPSC Docket 05-E-0889, submit a notice to the NYPSC, the NYISO, and Consolidated Edison Company of New York, Inc., and Entergy shall, pursuant to the NYISO Open Access Transmission Tariff Attachment Y, submit a Generator Deactivation Notice evidencing its intent to retire IP2 and IP3 no later than the dates set forth in Paragraph 1 in accordance with the terms of this Agreement; provided, however, that both of the aforesaid notices shall specify that cessation of operations at IP2 and IP3 is contingent upon successful implementation of the terms of this Agreement. In addition to the foregoing obligations, Entergy shall perform the commitments set forth in Schedule 1, attached to this Agreement.
3. Effective on the Signing Date:
 - a. The NYS Entities and the AG shall discontinue, and shall not initiate, any investigation involving, or any action against, Entergy (whether such investigation or action is styled as enforcement, remedial, or otherwise (collectively referred to as "Enforcement Action")) for any actual or alleged Condition that any of the NYS Entities or the AG knows about, or reasonably should know about, as of the Signing Date.

Notwithstanding the foregoing, nothing herein shall preclude the NYS Entities or the AG from initiating an Enforcement Action for any actual or alleged Condition that either: (i) first occurred subsequent to the Signing Date and is unrelated to a known Condition; or (ii) first occurred prior to the Signing Date and is either (a) reasonably unknown prior to such date, or (b) a material unaddressed exacerbation of a known Condition, or (c) is a Condition that Entergy fails to address subsequent to permanent cessation of commercial operations of IP2 and IP3. "Condition" means any condition that may give rise to an allegation by any entity under any applicable law (as it may exist from time to time), including any alleged damage, injury, threat or harm to human health, safety, natural resources, or the environment.

- b. Riverkeeper shall not initiate, or participate directly or indirectly in, any action, including any citizen suit, against Entergy for any actual or alleged violation, Condition, or other facts or circumstances, at or arising from the operation of IP2 and/or IP3. Notwithstanding the foregoing, nothing herein shall preclude Riverkeeper from initiating, or from participating directly or indirectly in, any action, including any citizen suit, against Entergy to the extent it is authorized to do so under applicable law for any actual or alleged Condition that either: (i) first occurred subsequent to the Signing Date and is unrelated to a known Condition; or (ii) first occurred prior to the Signing Date and is either (a) reasonably unknown prior to such date, or (b) a material unaddressed exacerbation of a known Condition, or (c) is a Condition that Entergy fails to address subsequent to permanent cessation of commercial operations of IP2 and IP3.

4. With respect to the CZMA Matter:

- a. On or before January 17, 2017, NYSDOS shall submit to Entergy, copying NRC and NOAA, a notice substantially in the same form as Exhibit A, stating that NYSDOS is withdrawing its challenge to Entergy's November 5, 2014 withdrawal of its consistency certification, and will proceed as if the withdrawal became effective on November 5, 2014, thereby rendering NYSDOS's November 6, 2015 objection moot and of no effect, and requiring Entergy to submit a new consistency certification.
- b. Within 5 business days of the NYSDOS notice to Entergy referred to in Paragraph 4.a above, Entergy shall submit to NOAA, copying NRC and NYSDOS, a notice in substantially the same form as Exhibit B, notifying NOAA that it is no longer pursuing its request to have NYSDOS's objection to Entergy's consistency certification deemed void, and that it no longer intends otherwise to appeal the objection.
- c. Also within 5 business days of the NYSDOS notice to Entergy referred to in Paragraph 4.a above, Entergy shall submit to NRC, copying NYSDOS, a notice in substantially the same form as Exhibit C, notifying NRC that it is no longer pursuing its arguments regarding CZMA previous review.
- d. On or before January 31, 2017, Entergy shall submit to NYSDOS, copying NRC, a new consistency certification based on final and draft environmental impact statements

issued by NRC prior to the Signing Date, consistent with the form and content of consistency certifications submitted by other nuclear facilities sited in New York State and concurred with by NYSDOS, and substantially in the same form as Exhibit D.

- e. NYSDOS shall issue its concurrence with Entergy's new consistency certification, in substantially the same form as Exhibit E, within 30 days of Entergy's submission of such certification. NYSDOS shall copy NRC and NOAA on its concurrence.
- f. Within 5 business days of NYSDOS's issuance of its concurrence, Entergy shall file a notice of dismissal of *Entergy Nuclear Indian Point 2, LLC v. Perales*, No. 1:16-cv-51 (N.D.N.Y.), substantially in the same form as Exhibit F.

5. With respect to the NRC Proceedings:

- a. On or before February 8, 2017, the AG and Riverkeeper shall file a joint motion with the ASLB, substantially similar to that set forth in Exhibit G, withdrawing without prejudice Contentions NYS-25, NYS-26B/RK-TC-IB, and NYS-38/RK-TC-5. The AG and Riverkeeper shall use their best efforts to cause other potential parties, Intervenor, and interested government entities in the NRC Proceedings to join, or not to oppose, withdrawal.
- b. NYS, the AG, and Riverkeeper shall not, under any circumstances whatsoever or at any time, file any new contentions in the NRC Proceedings, including, for the avoidance of doubt, any contention based on any actual or alleged violation, Condition, or other facts or circumstances addressed in Paragraph 3. NYS, the AG, and Riverkeeper shall use their individual and collective best efforts to oppose the filing by other potential Intervenor or parties of any new contentions in the NRC Proceedings and, in any event, shall not support any such new contentions.
- c. For the purposes of this paragraph 5 and paragraph 6(d)(iii), when used in regard to the NYS Entities and AG, "best efforts" to cause third party actions or outcomes shall mean vigorously advancing reasonable arguments to persuade such third party to achieve the intended action or outcome, provided, such "best efforts" obligation shall not require the NYS Entities or AG to advance any value to or compromise any other proceeding or claim involving such third party, or to refrain from taking any other action within the governmental authority or jurisdiction of any NYS Entity or the AG.

6. With respect to the NYSDEC Matter:

- a. Within 5 business days of the Signing Date or no later than January 17, 2017, NYSDEC shall submit to the ALJs presiding over the NYSDEC Matter a notice in the same form attached hereto as Exhibit H (the "Resolution Notice"), outlining NYSDEC's and Entergy's resolution of all matters pending before the ALJs and attaching the same form of Stipulation attached hereto in Exhibit H signed by NYSDEC and by ENIP2, ENIP3, and ENOI memorializing the elements and procedure for the resolution (the "Stipulation"). Riverkeeper, including on behalf of the Natural Resources Defense

Council and Scenic Hudson, Inc. (collectively in this Paragraph 6, “Riverkeeper”), also shall sign the Stipulation. Other Intervenor in the NYSDEC Matter will be invited to concur in the Stipulation, but their decision not to do so shall not impair resolution of the NYSDEC Matter as provided herein.

- b. The Resolution Notice shall also inform the ALJs of, and attach, a final WQC that explicitly supersedes NYSDEC’s April 2010 notice of denial (the “Indian Point Final WQC”). The Indian Point Final WQC shall expressly acknowledge that NYSDEC has concluded, with respect to Indian Point’s continued operation through the Retirement Dates, that NYSDEC possesses reasonable assurances of satisfaction of all applicable Federal and State laws and regulations arising under or related to Section 401 of the CWA, including without limitation all applicable water quality standards contained within Parts 700-704 of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (“6 NYCRR”), consistent with NYSDEC’s issuance of: (1) the final SPDES permit for Indian Point (the “Indian Point Final SPDES Permit”); and (2) the draft and subsequent final Endangered Species Act (“ESA”) permit (respectively, the “Indian Point Draft ESA Permit” and the “Indian Point Final ESA Permit”), as either of the foregoing authorizations may be renewed from time to time consistent with this Agreement. The Indian Point Final WQC, which shall be effective through the Retirement Dates, shall be in substantially the form attached hereto as Exhibit I. The Indian Point Draft ESA Permit and the Indian Point Final ESA Permit, and any renewal of that permit issued between the Signing Date and the Retirement Dates, shall be in substantially the form of the Biological Opinion and Incidental Take Statement issued to Indian Point by the National Marine Fisheries Service, dated January 13, 2013.
- c. The Resolution Notice shall also inform the ALJs of, and attach, the Indian Point Final SPDES Permit. The Indian Point Final SPDES Permit shall expressly acknowledge that NYSDEC has concluded that continued operation of Indian Point through the Retirement Dates, including without limitation with its existing cooling water intake structures, cooling systems, components, and operations, complies with all Federal and State laws and regulations arising under or related to Section 316 of the CWA and 6 NYCRR Part 704, including without limitation NYSDEC Policy CP-52, titled “Best Technology Available (BTA) Policy for Cooling Water Intake Structures” and dated July 10, 2011. The Indian Point Final SPDES Permit, and any renewal of that permit issued between the Signing Date and the Retirement Dates, shall be substantially in the form attached hereto as Exhibit J. The Biological Fact Sheet accompanying the Indian Point Final SPDES Permit, and findings under the State Environmental Quality Review Act (“SEQRA”) that NYSDEC may elect to issue, shall be in substantially the form attached hereto as Exhibit K.
- d. Further, NYSDEC and Entergy agree that:
 - i. The Indian Point Final SPDES Permit shall contain the thermal, biological monitoring, and seasonal flow conditions that previously were agreed to between and among NYSDEC Staff and Entergy by stipulations, respectively dated May 16,

2011 and June 19, 2015, the latter of which also includes Riverkeeper; provided that all thermal, biological monitoring and seasonal flow conditions, except to the extent otherwise provided in the respective stipulations, shall cease no sooner than the Retirement Dates.

- ii. The Indian Point Final SPDES Permit shall explicitly authorize the Indian Point units to operate through their Retirement Dates under their existing suite of cooling water intake structure technologies (without installation of any additional technologies, including without limitation cooling towers or wedgewire screens), subject to Entergy's agreement to schedule its annual refueling and maintenance outage (which in recent years has averaged 30 days per year) between February 23 and August 23 of each year.
- iii. NYS and NYSDEC shall use best efforts to secure all remaining Intervenor's concurrences to the resolution of the NYSDEC Matter and issuance of the Indian Point Final WQC and the Indian Point Final SPDES Permit, with accompanying Biological Fact Sheet, Supplemental Final Environmental Impact Statement ("SFEIS") and SEQRA findings (the "SEQRA Findings"), within 5 business days of submission of the Resolution Notice to the ALJs as provided for in this Paragraph or no later than January 24, 2017; provided that, upon mutual agreement between NYSDEC and Entergy, a single additional 5 business day extension of the concurrence deadline to no later than January 31, 2017 may be provided for. Immediately on obtaining the concurrence of all Intervenor to issuance of the Indian Point Final WQC and the Indian Point Final SPDES Permit within the time period set forth in this Subparagraph (iii), NYSDEC shall act to secure from the ALJs and the Commissioner or his delegate termination of the NYSDEC Matter within 5 business days of the last concurrence, but in no event later than January 31, 2017 (February 7, 2017, if the concurrence period is extended). The documents effectuating the termination of the NYSDEC Matter, with or without all Intervenor concurrences, shall be substantially in the form attached hereto as Exhibits L and M.
- iv. In the absence of obtaining the concurrence of all Intervenor to issuance of the Indian Point Final WQC and the Indian Point Final SPDES Permit within the time period set forth in Subparagraph (iii) above, NYSDEC nonetheless shall secure both termination of the NYSDEC Matter by the ALJs and the Commissioner or his delegate, and a remand to NYSDEC Staff directing it to issue the Indian Point Final WQC and the Indian Point Final SPDES Permit, and to complete the SEQRA process. This termination and remand shall be achieved no later than 5 business days after the end of the concurrence period (including as it may be extended), but in no event later than January 31, 2017 (February 7, 2017, if the concurrence period is extended), by obtaining the ALJs' written decision and order terminating the NYSDEC Matter over any objections, and remanding the matter to NYSDEC Staff and directing it to complete the process for issuing the Indian Point Final WQC and the Indian Point Final SPDES Permit, with the accompanying Biological Fact Sheet, SFEIS and SEQRA Findings, in a manner consistent with NYSDEC's Resolution Notice. Immediately upon receiving NYSDEC's Resolution Notice, but in no event

later than January 31, 2017 (February 7, 2017, if the concurrence period is extended), the NYSDEC Commissioner or his delegate shall issue its order and directive on the termination of the NYSDEC Matter, which shall be in substantially the form attached hereto as Exhibit M. Immediately upon receiving the NYSDEC Commissioner or his delegate's order and directive of termination of the NYSDEC Matter, but in no event later than February 7, 2017 (February 14, 2017, if the concurrence period is extended), NYSDEC Staff, in substantially the form attached hereto as Exhibit N, shall inform the ALJs of NYSDEC's issuance of the Indian Point Final WQC and the Indian Point Final SPDES Permit, with the accompanying Biological Fact Sheet, SFEIS and SEQRA Findings. Simultaneously, NYSDEC Staff shall undertake: (i) public notice of the Indian Point Final WQC and the Indian Point Final SPDES Permit, and (ii) public notice and opportunity for comment on the SFEIS; provided that NYSDEC shall authorize no more than 45 days of public notice and comment on the foregoing SFEIS to no later than March 24, 2017 (March 31, 2017, if the concurrence period is extended), subject to a single 15-day extension to no later than April 10, 2017 (April 17, 2017, if the concurrence period is extended) to the extent deemed necessary in NYSDEC Staff's reasonable discretion, after which NYSDEC shall respond to any such comments to the extent required by applicable law within 30 days and in any event no later than May 10, 2017 (May 17, 2017, if the concurrence period is extended). Immediately following the 10 calendar days required for completion of the FSEIS (including the response to comments) and in any event no later than May 22, 2017 (May 31, 2017, if the concurrence period is extended), NYSDEC shall issue the SEQRA Findings, completing the SEQRA process, after which NYSDEC immediately shall issue the Indian Point Final WQC and the Indian Point Final SPDES Permit. In no event shall NYSDEC fail to issue the Indian Point Final WQC and the Indian Point Final SPDES Permit, with prior completion of the SEQRA process for the SFEIS and the SEQRA Findings, by May 31, 2017, without the prior written approval of Entergy. Entergy and NYSDEC shall cooperate on preparation of the response to comments on the SFEIS and on the SEQRA Findings.

- v. Riverkeeper and any other Intervenor that concurs in the Stipulation shall, within 5 business days of the Signing Date or no later than January 17, 2017, withdraw all pending challenges and appeals in the NYSDEC Matter.
- vi. NYS and NYSDEC shall defend NYSDEC's actions in this Paragraph 6, specifically issuance of the Indian Point Final WQC, the Indian Point Final SPDES Permit, with accompanying Biological Fact Sheet, SFEIS and SEQRA Findings, the Indian Point Draft ESA and the Indian Point Final ESA, in any and all tribunals and courts, including without limitation (in the absence of obtaining concurrences from all Intervenor) as it relates to the NYSDEC Matter, by (1) granting Entergy's pending interlocutory appeals, and (2) terminating the rights of any Intervenor that has not actively participated in such NYSDEC Matter adjudicatory hearings for more than 36 continuous months.

- vii. During the remaining operating life of the Indian Point units (i.e., through the Retirement Dates), NYS, NYSDEC and the AG shall renew, shall defend the issuance and terms of, and with Riverkeeper and any other Intervenor that concurs in the Stipulation, shall not seek, directly or indirectly, to modify, revoke, or otherwise materially alter, the Indian Point Final WQC, the Indian Point Final SPDES Permit, or the Indian Point Draft ESA Permit and the Indian Point Final ESA Permit, including as the foregoing authorizations may be renewed consistent with this Agreement. Notwithstanding the foregoing, nothing in this Paragraph 6 shall be construed as abrogating NYSDEC's authority to enforce the terms and conditions of the Indian Point Final WQC, the Indian Point Final SPDES Permit, or the Indian Point Final ESA Permit in accordance with applicable law and regulation.
- 7. Any enforcement of this Agreement may be sought in any New York State or New York Federal court of competent jurisdiction, and the NYS Entities, the AG, and Riverkeeper consent to such court's exclusive jurisdiction and venue and agree not to interpose any defenses to venue or jurisdiction, including without limitation, with respect to the NYS Entities and the AG, a defense of sovereign immunity, and not to raise any defense or motion alleging inconvenient forum.
 - 8. The unexecuted obligations of each Party under this Agreement are expressly conditioned and contingent upon resolution to such Party's reasonable satisfaction of any legal challenges to the execution of, or implementation of any obligation under, this Agreement, whether such obligation is to be executed or implemented by Entergy or by any of the NYS Entities, the AG, or Riverkeeper; provided that the universe of "legal challenges" mentioned in this sentence shall be limited to those brought by any person or entity that has participated in any current or past administrative or judicial proceeding involving the NRC or NYSDEC and concerning IP2 and/or IP3; and provided further, that this Paragraph 8 shall become null and void once the NRC's order approving the issuance of renewed licenses becomes final and non-appealable.
 - 9. As of the Signing Date, each Party to this Agreement makes the following representations and warranties to every other Party:
 - a. Formation. Such Party is an entity validly existing under the Laws of the State of its formation.
 - b. Power and Authority. Such Party has all requisite power and authority to execute, deliver, and perform its obligations under this Agreement and to consummate the transactions contemplated hereby. This Agreement has been duly authorized and validly executed and delivered by such Party. All actions on the part of such Party necessary for the authorization, execution, and delivery of, and the performance of all obligations of such Party under, this Agreement have been taken.
 - c. Enforceability. This Agreement is a valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except with respect to non-governmental parties as such enforceability may be limited by applicable bankruptcy, reorganization, insolvency, fraudulent conveyance, moratorium, receivership, or similar

laws affecting creditors' rights generally and by general principles of equity (whether considered at law or in equity).

- d. No Contravention. The execution, delivery, and performance of this Agreement by such Party do not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgment of any court or other governmental authority applicable to such Party, or any of its assets or any contractual restriction binding on or affecting such Party or any of its assets.
- e. Approvals. Except as specifically noted, all governmental and other authorizations, approvals, consents, notices, and filings that are required to have been obtained or submitted by such Party as of the Signing Date and through the Retirement Dates with respect to this Agreement have been obtained or submitted and are in full force and effect and all conditions of any such authorizations, approvals, consents, notices, and filings have been complied with.
- f. Litigation. There is no pending action, suit, or governmental or agency (or utility) proceeding filed by a third party against such Party which questions the validity of this Agreement or seeks to challenge or prohibit any action taken or to be taken by such Party pursuant to this Agreement or in connection with the transactions contemplated hereby, and such Party has not received any written notice threatening any action, suit or other proceeding described in this Paragraph 9. Such Party is not subject to any judgment, order, or decree that restricts its ability to consummate the transactions contemplated by this Agreement.

10. Any notice, communication, request, or demand pertaining to this Agreement to or upon the Parties hereto to be effective shall be in writing and shall be deemed to have been duly given or made when delivered, given, or served by: (a) reputable overnight courier service guaranteeing next day delivery, which notice shall be effective upon receipt; or (b) by email, sent with a read receipt requested, which notice shall be effective upon the date of confirmation of the read receipt, addressed as follows, or to such address as may be hereafter notified by the Parties:

State of New York

Governor Andrew M. Cuomo
Executive Chamber
State Capitol
Albany, NY 12224

**New York State Department of
Environmental Conservation**

Basil Seggos, Commissioner
Dept. of Environmental Conservation
625 Broadway
14th Floor
Albany, NY 12233
Basil.Seggos@dec.ny.gov

With a copy to:

Counsel to the Governor
Executive Chamber
State Capitol
Albany, NY 12224

New York State Department of Health

Dr. Howard Zucker
Commissioner, NYS Dept. of Health
NYS Dept. of Health
Corning Tower
Empire State Plaza, Albany, NY 12237
dohweb@health.ny.gov

With a copy to:

Richard Zahnleuter
General Counsel
Division of Legal Affairs
New York State Dept. of Health
Tower Building, Room 2438
Empire State Plaza
Albany, NY 12237
Richard.zahnleuter@health.ny.gov

With a copy to:

Thomas S. Berkman, Esq.
Deputy Commissioner and General Counsel
Office of General Counsel
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625 Broadway
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Thomas.berkman@dec.ny.gov

Riverkeeper, Inc.

Paul Gallay
President
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Ossining, NY 10562
pgallay@riverkeeper.org

With a copy to:

General Counsel
20 Secor Road
Ossining, NY 10562

New York State Department of State

Rossana Rosado
Secretary of State
NYS Department of State
99 Washington Avenue
Albany, NY 12231
rossana.rosado@dos.ny.gov

With a copy to:

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Office of the Attorney General of the State of New York

Eric Schneiderman
NYS Attorney General
Office of the Attorney General
The Capitol
Albany, NY 12224

With a copy to:

Lisa M. Burianek
Deputy Bureau Chief
Environmental Protection Bureau
NYS Department of Law
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New York State Dept. of Public Service

Commissioner Audrey Zibelman
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Audrey.zibelman@dps.ny.gov

With a copy to:

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Entergy

Jack Davis
VP, Regulatory Assurance
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Jackson, MS 39213
jdavi26@entergy.com

With a copy to:

William B. Glew, Jr.
Associate General Counsel
440 Hamilton Avenue
White Plains, New York 10601
wglew@entergy.com

11. Enforcement and Remedies.

(a) Specific Performance. Each of the Parties acknowledges and agrees that other Parties would be damaged irreparably and remedies at law, including monetary damages, would be inadequate in the event any of the provisions of this Agreement are not materially performed in accordance with their specific terms or are otherwise materially breached. Accordingly, each of the Parties agrees that the other Parties shall each be entitled, without limitation, to an injunction to address material breaches of the provisions of this Agreement and/or to enforce affirmatively and specifically this Agreement and the terms and provisions hereof, in any action instituted in any court of the United States or any court thereof having jurisdiction over the Parties and the matter in addition to any other remedy to which it may be entitled under this Agreement.

(b) Acknowledgements.

(i) The Parties acknowledge that each of the other Parties is giving up substantial rights (including, for Entergy, its lawful right to continue operation of IP2 and IP3, and for the NYS Entities, the AG, and Riverkeeper, their lawful rights to pursue existing and future regulatory and civil litigation actions) in consideration for the other Parties' performance of their respective obligations under this Agreement, and that such forbearance constitutes substantial and sufficient consideration for the Parties' obligations set forth herein.

(ii) The Parties acknowledge that they are entering this Agreement without regard to future events or circumstances, including political and social conditions, market conditions, prices or costs, change of law (other than a law prohibiting performance of a provision of this Agreement), commencement of litigation or regulatory proceedings (other than an action by a Party that constitutes a breach), or outcome of any existing litigation or regulatory proceedings other than as expressly covered by this Agreement, or current circumstances that may not be fully known to them, and that future events or circumstances may occur, whether foreseeable or unforeseeable, and current circumstances unknown to them may exist, that could have a material adverse effect upon a Party's benefits or obligations under this Agreement. Accordingly, the Parties agree not to seek to avoid any obligations under this Agreement on the basis of any alleged unilateral or mutual mistake of fact, unconscionability of any provision hereof, frustration of purpose, impracticality, cost or difficulty of performance, restraint of trade or unfair trade practices. For avoidance of doubt, this subparagraph (ii) shall not be interpreted such as to deprive or impair a Party's rights with respect to another Party's future act or omission that constitutes a breach of this Agreement, as otherwise provided for in this Agreement.

(iii) Nothing in this Agreement shall alter, modify, or terminate (a) any existing contracts by and between Entergy and/or its affiliates and any of the NYS Entities, (b) any permits issued to Entergy and/or its affiliates by NYS Entities (except to the extent specifically modified by this Agreement), (c) all previous settlements between Entergy and/or its affiliates and the NYS Entities, and/or (d) any other contracts, permits, or settlements by, between and among Entergy and its affiliates and any other State or local agency, authority, or governmental instrumentality.

(c) Remedies. Subject to the terms of this Agreement, each Party expressly:

(i) reserves, for purposes of enforcing this Agreement, without limitation or exclusion, (a) all remedies and rights available to it under law and equity and (b) such authority as it possesses under law;

(ii) waives any and all other claims and remedies against the other Parties with respect to the matters covered by this Agreement; and

(iii) reserves for itself defenses, and such authority as it possesses under law to assert such defenses, to any enforcement which is sought against it for breaches of the terms of this Agreement.

12. Other terms and conditions: (a) except as set forth herein, each Party will bear its own costs and fees in connection with this Agreement; (b) this Agreement will be binding on and inures to the benefit of each of the Parties and each Party's successors and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy, or claim under or in respect to or by virtue of this Agreement or any provision hereof; (c) this Agreement represents the entire agreement between and among the Parties and supersedes all earlier agreements as to the same subject matter, and any amendment to or waiver of any provision of this Agreement must be in writing signed by all Parties; (d) the Parties acknowledge the inadequacy of monetary relief for violation of this Agreement and the availability of injunctive relief; (e) in case any one or more of the provisions contained in this Agreement shall, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such provision shall be ineffective in the jurisdiction involved to the extent, but only to the extent, of such invalidity, illegality, or unenforceability without invalidating the remainder of such invalid, illegal, or unenforceable provision or provisions or any other provisions of this Agreement, unless such a construction would cause a failure of a condition precedent or other condition or contingency contained in this Agreement or otherwise be unreasonable or deprive a Party of a material element of its original bargain, in which instance the Parties shall negotiate in good faith a reformation of this Agreement to reflect as nearly as possible the original intent of the Parties in the absence of such provision; (f) the failure of any Party to enforce at any time any of the provisions of this Agreement shall not be construed to be a waiver of any provision nor affect the validity of this Agreement or any part hereof, and a waiver of any breach hereof shall not be deemed or held to be a waiver of any other or subsequent breach; (g) this Agreement and the existence and validity hereof shall be governed by, interpreted and enforced in accordance with, the laws of the State of New York without giving effect to any choice or conflict of laws provision or principle (whether of New York or any other jurisdiction) that would cause the application of the laws of any other jurisdiction; (h) ambiguities or uncertainties in the wording of this Agreement will not be construed against a Party on the basis of which Party drafted such wording; (i) the Parties acknowledge that New York law implies a covenant of good faith and fair dealing into this Agreement; (j) this Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument, and, further, any facsimile or electronically transmitted copies hereof or signature hereon shall, for all purposes, be deemed originals; (k) the Exhibits, Schedule and Appendix

referenced in this Agreement are incorporated into this Agreement and constitute fully enforceable provisions hereof; and (l) this Agreement is the result of compromise among the Parties, and nothing in this Agreement shall be construed as an admission by any Party in any proceeding, including any administrative NYSDEC proceeding pertaining to the Clean Water Act or other environmental statutes, other than a proceeding related to implementation of this Agreement.

[Signature pages follow]

Date: January 8, 2017

THE STATE OF NEW YORK
GOVERNOR ANDREW M. CUOMO

By: 

Name: Andrew M. Cuomo

Title: Governor

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF HEALTH

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF STATE

By: _____

Name:

Title:

Date:

OFFICE OF THE ATTORNEY GENERAL
OF THE STATE OF NEW YORK

By: _____

Name:

Title:

Date:

THE STATE OF NEW YORK
GOVERNOR ANDREW M. CUOMO

By: _____

Name:

Title:

Date: +BOVBSZ8, 2017

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

By:  _____

Name: Basil Seggos

Title: Commissioner

Date:

NEW YORK STATE DEPARTMENT
OF HEALTH

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF STATE

By: _____

Name:

Title:

Date:

OFFICE OF THE ATTORNEY GENERAL
OF THE STATE OF NEW YORK

By: _____

Name:

Title:

Date:

THE STATE OF NEW YORK
GOVERNOR ANDREW M. CUOMO

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL
CONSERVATION

By: _____

Name:

Title:

Date: +BOVBSZ 8, 2017

NEW YORK STATE DEPARTMENT
OF HEALTH

By: Howard A. Zucker, MD
Name: HOWARD ZUCKER, MD, JD
Title: COMMISSIONER

Date:

NEW YORK STATE DEPARTMENT
OF STATE

By: _____

Name:

Title:

Date:

OFFICE OF THE ATTORNEY GENERAL
OF THE STATE OF NEW YORK

By: _____

Name:

Title:

Date:

THE STATE OF NEW YORK
GOVERNOR ANDREW M. CUOMO

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF HEALTH

By: _____

Name:

Title:

Date: +BOVBSZ 8, 2017

NEW YORK STATE DEPARTMENT
OF STATE

By:  _____

Name: Rossana Rosada

Title: Secretary of state

Date:

OFFICE OF THE ATTORNEY GENERAL
OF THE STATE OF NEW YORK

By: _____

Name:

Title:

Date:

THE STATE OF NEW YORK
GOVERNOR ANDREW M. CUOMO

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL
CONSERVATION

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF HEALTH

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF STATE

By: _____

Name:

Title:

Date: January **f** 2017

OFFICE OF THE ATTORNEY GENERAL
OF THE STATE OF NEW YORK

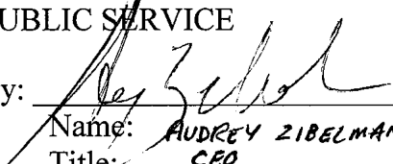
By: _____

LISA M. BURIANEK

Assistant Attorney General

Date: +BOVBSZ 8, 2017

NEW YORK STATE DEPARTMENT OF
PUBLIC SERVICE

By: 
Name: AUDREY ZIBELMAN
Title: CEO

Date:

ENTERGY NUCLEAR INDIAN
POINT 2, LLC

By: _____
Name:
Title:

Date:

ENTERGY NUCLEAR INDIAN
POINT 3, LLC

By: _____
Name:
Title:

Date:

ENTERGY NUCLEAR OPERATIONS,
INC.

By: _____
Name:
Title:

Schedule 1

Additional Concurrent and Post-Operational Commitments

IP2 and IP3 Baffle Former Bolt Inspections

Entergy will conduct visual inspections of 100% of all baffle former bolts (“BFB”) and ultrasonic (“UT”) inspections of 100% of all accessible BFB at IP3 in Spring 2017. Entergy will then conduct visual and UT inspections of 100% of all accessible original BFB at IP2 during the 2018 and at IP3 during the 2019 refueling outages. Entergy will also conduct general visual inspections of replaced (new) bolts; if any degraded new bolts are identified, Entergy will conduct UT inspections of 100% of inservice new bolts. Entergy will replace all bolts with indications that are required to ensure structural integrity of the baffle structure during all design conditions. BFB inspections shall be independently reviewed by qualified non-destructive examination analysts. BFB inspection and acceptance criteria shall be as defined in the then-current version of WCAP-17096, Reactor Internals Acceptance Criteria Methodology and Data Requirements,¹ or NRC-approved replacement document. Additional good bolts will be replaced to ensure that sufficient safety margin is maintained and the margin will account for the failure rate and clustered failure of baffle-former bolts in the recent operating history. Entergy will also support additional detailed examinations of failed and non-failed IP2 and industry bolts related to crack initiation and crack growth. The BFB inspection and replacement data are subject to NRC review and inspection.

Annual Inspections by New York State

Entergy agrees to an annual inspection by New York State-designated representatives on issues pertaining to continued operation of IP2 and IP3 through 2021. The duration and scope of, and participation in, the inspections are subject to mutual agreement by Entergy and New York State in advance of each inspection.

Expedited Transfer of IP2 and IP3 Spent Fuel to Dry Storage

Entergy will transfer a minimum of 4 casks (total) with a capacity of 32 bundles each of IP2 and IP3 spent fuel to dry storage per year, and will transfer a total of 24 such casks by the end of 2021. Entergy will use its best efforts to maximize the amount of spent fuel transferred to dry storage each year, subject to and limited by Entergy’s requirements to address industrial and radiological safety concerns (including the need to limit radiation to off-site persons as a result of additional dry cask storage), technical limitations of the Indian Point fuel handling facilities, and licensing and regulatory restrictions on the plant site and the dry cask system used at Indian Point. Entergy’s current plan is to load and transfer between 4 and 8 casks each year.

¹ The current version, WCAP-17096-NP-A, Rev. 2, can be found at ML16279A320.

Retrieval of IP2 Loose Parts

Entergy will inspect for, find and remove or assess the safety consequences of any loose parts present on a cycle-to-cycle basis starting with the 2018 IP2 inspections.

IP2 and IP3 Steam Generator Inspections

Based on published guidance from the NRC and the Electric Power Research Institute and the materials, design, and licensing basis of the IP2 and IP3 steam generators, Entergy does not agree that detailed inspections of the steam generator divider plates or tube-to-tubesheet welds for evidence of cracking are necessary or warranted. Entergy agrees to conduct a general visual inspection of the steam generator channel head and the tubesheet region for evidence of cracking at IP2 and IP3 during the IP3 2017 and the IP2 2018 refueling outages. Such inspections are to be conducted in accordance with LR-ISG-2016-01, Changes to Aging Management Guidance for Various Steam Generator Components, issued by the NRC in December 2016, and are subject to NRC review and inspection.

Community Fund

To further augment its commitment to the environment and the community in which Indian Point operates, Entergy shall establish a fund in the amount of \$15 million (the “Fund”), the goal of which is to fund projects designed to benefit the Hudson River and to support the community, and to provide environmental protection and other public benefits to the community. The Fund will provide for the completion of projects to be selected by NYS and Entergy, after consultation with regional environmental organizations and community groups and interests. With respect to the environmental projects, priority will be given to projects for dam or culvert removal, purchase of sensitive wetlands areas along the Hudson River, continuation of scientific studies designed to advance the protection of riverine species, and prevention of the introduction of invasive species into the Hudson River watershed, and other projects determined by NYS and Entergy that are consistent with the purposes for which the Fund has been established.

Tritium Mitigation

Entergy will implement in 2017 targeted plant and hardware modifications at Indian Point to minimize potential releases of radiologically-contaminated fluids to groundwater from normal and temporary plant systems and operations. These modifications may include installation of a high level alarm and backflow prevention measures in Fuel Storage Building (“FSB”) Sump 28, sealing and coating of the FSB Truck Bay subfloor, and sealing or replacing designated building/structural joints that provide potential paths to groundwater.

Emergency Operations Facility

Entergy will design and construct a new alternate Emergency Operations Facility (“EOF”) in Fishkill, New York. The upgraded alternate EOF will be operational by mid-2018 and will

provide key support to future Entergy emergency planning activities for Indian Point. Entergy shall operate and maintain the alternate EOF until Entergy reasonably determines, based on applicable NRC guidance and regulations, that it no longer requires the facility to fulfill applicable off-site emergency planning requirements.

Decommissioning

Entergy shall make appropriate filings with the NRC to obtain authority to begin NRC dismantling, decommissioning, and remediation activities related to radiological, mixed waste, co-located, or unsegregated non-radiological material (collectively, “Radiological Decommissioning”) within 120 days after it has made a reasonable determination that the funds in the nuclear decommissioning trust are adequate to complete Radiological Decommissioning and any remaining spent nuclear fuel management activities that the Federal government has not yet agreed (or been ordered) to reimburse. Once Entergy receives NRC approval of, or non-opposition to, its filings, Entergy shall promptly commence, pursue, and complete as soon as reasonably practicable Radiological Decommissioning. Non-radiological remediation activities, if any, that remain after decommissioning and other restoration activities shall commence only after completion of license termination, Radiological Decommissioning, and those site remediation activities under the sole authority of the NRC.

APPENDIX I

COLLATERAL INDIAN POINT AGREEMENT

Entergy Nuclear Indian Point 2, LLC
1340 Echelon Parkway
Jackson, MS 39213

Entergy Nuclear Indian Point 3, LLC
1340 Echelon Parkway
Jackson, MS 39213

Entergy Nuclear Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213

New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12207

State of New York
Executive Chamber
State Capitol
Albany, NY 12224

This letter constitutes an agreement, made as of the 9th day of January, 2017, by and between the following (collectively referred to as the “CIPA Parties”): Entergy Nuclear Indian Point 2, LLC; Entergy Nuclear Indian Point 3, LLC; Entergy Nuclear Operations, Inc. (which, together with Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC, “Entergy”); the New York State Department of Environmental Conservation (“NYSDEC”); the State of New York (“NYS”); and Riverkeeper, Inc. (“Riverkeeper”). This letter, which, in addition to its status as a final and fully enforceable settlement agreement, is denominated as Appendix I to a certain settlement agreement by and between, among other parties, those set forth as addressees hereof, known as the “Indian Point Agreement,” expressly includes and incorporates by reference the Indian Point Agreement and the “Community Fund” provision, attached hereto as Schedule 1a. Collectively, this letter, together with the Indian Point Agreement and Schedule 1a, are referred to herein as the “Collateral Indian Point Agreement” or the “CIPA.”

TERMS OF AGREEMENT

In consideration of the premises and the mutual agreements hereinafter set forth, and for One Dollar (\$1.00) paid by Entergy to Riverkeeper and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the CIPA Parties, intending to be legally bound and intending for the Collateral Indian Point Agreement to be a final and fully enforceable settlement agreement, hereby agree as follows:

1. The Collateral Indian Point Agreement is the entire agreement among the six entities constituting the collective of CIPA Parties with respect to the subject matter of the CIPA, and the Collateral Indian Point Agreement supersedes any prior agreement or understanding among the collective of CIPA Parties with respect to the subject matter of the CIPA. In no way, and by no means of any construction, does the Collateral Indian Point Agreement affect the obligations undertaken by the Parties, as defined in the Indian Point Agreement, in, or the enforceability of, the Indian Point Agreement. Further, for the avoidance of doubt: (a) Riverkeeper hereby fully adopts and agrees to be bound by each and every term and condition of the Indian Point Agreement as if Riverkeeper were a party to and a signatory of the Indian Point Agreement; and (b) Riverkeeper's obligations hereunder include without limitation the obligations set forth in the following Paragraphs of the Indian Point Agreement: 3.b; 5; 6.a and d; 7; 8; 9; 11; and 12.
2. The Collateral Indian Point Agreement shall become, and be deemed to be, effective simultaneous with the effective date of the Indian Point Agreement (also referred to in the Indian Point Agreement as the "Signing Date"); provided that Riverkeeper's adoption and agreement to each and every term of the Indian Point Agreement shall not be interpreted or deemed in any manner to contravene or otherwise alter the integration clause contained in Paragraph 12 of the Indian Point Agreement.
3. Simultaneous with the effective date of the CIPA, Entergy is providing to Riverkeeper consideration in the amount of One Dollar (\$1.00) and other good and valuable consideration for Riverkeeper's agreement to and acceptance of its obligations under the Collateral Indian Point Agreement. Riverkeeper acknowledges: (a) receipt of such payment by Entergy to Riverkeeper; and (b) that the aforesaid consideration, and the acceptance by Entergy, NYSDEC, NYS, and Riverkeeper of their respective obligations under the Indian Point Agreement, are intended to, and do, constitute full, fair, and adequate consideration for the CIPA Parties' obligations under the CIPA.
4. Riverkeeper and the other CIPA Parties agree, specifically, that: (a) Riverkeeper's right to litigate or participate directly or indirectly in any action, including any citizen suit, against Entergy is as expressly and explicitly set forth in Subparagraph 3.b of the Indian Point Agreement and that nothing in the CIPA shall serve to provide any exception thereto; and (b) Riverkeeper is specifically prohibited from bringing any action to prevent Entergy from agreeing to an extension pursuant to Paragraph 1 of the Indian Point Agreement or to prevent any other amendment of the Indian Point Agreement by the Parties thereto.
5. Riverkeeper expressly and specifically makes each and every of the representations and warranties to the other CIPA Parties that are contained in Paragraph 9 of the Indian Point Agreement as if they were incorporated directly into the Collateral Indian Point Agreement.

Executed, subscribed, and agreed to by:

Date: January 8, 2017

RIVERKEEPER, INC.

By: 

Name: Paul Gallay

Title: President and Hudson Riverkeeper

Address: 20 Secor Road

Ossining, NY 10562

Accepted and agreed to by:

Date:

ENTERGY NUCLEAR INDIAN POINT 2,
LLC

By: _____

Name:

Title:

Date:

ENTERGY NUCLEAR INDIAN POINT 3,
LLC

By: _____

Name:

Title:

Date:

ENTERGY NUCLEAR OPERATIONS,
INC.

By: _____

Name:

Title:

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL
CONSERVATION, signing on behalf of
itself and on behalf of the State of New York

By: _____

Name:

Title:

Executed, subscribed, and agreed to by:

Date:

RIVERKEEPER, INC.

By:

Name:

Title:

Address: 20 Secor Road
Ossining, NY 10562

Accepted and agreed to by:

Date:

1/8/17

ENTERGY NUCLEAR INDIAN POINT 2,
LLC

By:

Name:

Title: (t...a' c_ "i..c,

Date:

1/8/17

ENTERGY NUCLEAR INDIAN POINT 3,

Title:

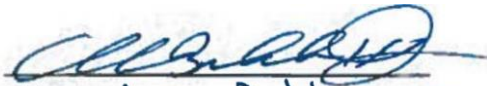
____ \. c_

Date:

1/8/17

ENTERGY NUCLEAR OPERATIONS,
INC.

By:



Name: A.C. Bakken, III

Title: President & CEO

Date:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL
CONSERVATION, signing on behalf of
itself and on behalf of the State of New York

By:

Name:

Title:

Executed, subscribed, and agreed to by:

Date:

RIVERKEEPER, INC.

By: _____

Name:

Title:

Address: 20 Secor Road
Ossining, NY 10562

Accepted and agreed to by:

Date:

ENTERGY NUCLEAR INDIAN POINT 2,
LLC

By: _____

Name:

Title:

Date:

ENTERGY NUCLEAR INDIAN POINT 3,
LLC

By: _____

Name:

Title:

Date:

ENTERGY NUCLEAR OPERATIONS,
INC.

By: _____

Name:

Title:

Date: +BOVBSZ8, 2017

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL
CONSERVATION, signing on behalf of
itself and on behalf of the State of New York

By:  _____

Name: Basil Seggos

Title: Commissioner

Schedule 1a

Community Fund

To further augment its commitment to the environment and the community in which Indian Point operates, Entergy shall establish a fund in the amount of \$15 million (the “Fund”), the goal of which is to fund projects designed to benefit the Hudson River and to support the community, and to provide environmental protection and other public benefits to the community. The Fund will provide for the completion of projects to be selected by NYS and Entergy, after consultation with regional environmental organizations and community groups and interests. With respect to the environmental projects, priority will be given to projects for dam or culvert removal, purchase of sensitive wetlands areas along the Hudson River, continuation of scientific studies designed to advance the protection of riverine species, and prevention of the introduction of invasive species into the Hudson River watershed, and other projects determined by NYS and Entergy that are consistent with the purposes for which the Fund has been established.

EXHIBITS

EXHIBIT A

[NYSDOS LETTERHEAD]

[Month] [Day], 2017

Fred Dacimo
Vice President, Operations License Renewal
Entergy Nuclear Northeast, Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

Re: F-2012-1028
Withdrawal of Objection to Coastal Zone
Management Act Consistency Certification
Indian Point Nuclear Generating Unit Nos. 2 & 3
NRC License Nos. DPR-26 and DPR-64
NRC Docket Nos. 50-247 and 50-286

Dear Mr. Dacimo:

On December 17, 2012, Entergy Nuclear Operations, Inc. (Entergy) filed with the New York State Department of State (NYSDOS), pursuant to the Coastal Zone Management Act, a certification stating that renewal of U.S. Nuclear Regulatory Commission (NRC) Facility Operating Licenses DPR-26 and DPR-64 for Indian Point Nuclear Generating Unit Nos. 2 & 3 (IP2 and IP3) for an additional 20 years was consistent with the New York State Coastal Management Program. NYSDOS objected to Entergy's consistency certification on November 6, 2015.

Pursuant to an agreement between Entergy and NYSDOS, among other parties, dated January 9, 2017, regarding the planned cessation of operation of IP2 and IP3, NYSDOS hereby withdraws its challenge to Entergy's November 5, 2014 withdrawal of its consistency certification, and will proceed as if the withdrawal became effective on November 5, 2014, thereby (1) rendering NYSDOS's November 6, 2015 objection moot and of no effect and (2) requiring Entergy to submit a new certification. Pursuant to that same agreement, Entergy will submit to NYSDOS a new consistency certification for renewal of the IP2 and IP3 operating licenses on or before January 31, 2017.

The U.S. Department of Commerce and the NRC are being notified of this action by copy of this letter.

Sincerely,

Rossana Rosado

Secretary of State
Department of State

cc:

Jane Marshall, Division of License Renewal, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001

William B. Glew, Jr., Esq., Entergy Services, Inc., 440 Hamilton Avenue, White Plains, NY 10601

Jeffrey L. Payne, Ph.D., Director, Office for Coastal Management, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

Paul M. Scholz, Deputy Director, Operations, Office for Coastal Management, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

John King, Deputy Director, Programs, Office for Coastal Management, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

David Kaiser, Senior Policy Analyst, Office for Coastal Management, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

Lois Schiffer, General Counsel, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Washington, DC 20230

EXHIBIT B

January____, 2017

VIA EMAIL AND U.S. MAIL
LOIS.SCHIFFER@NOAA.GOV

Hon. Lois Schiffer
General Counsel
United States Department of Commerce
National Oceanic and Atmospheric
Administration
1401 Constitution Avenue, N.W.
Washington, DC 20230

Re: Objection under Coastal Zone Management Act of New York State Department of State dated November 6, 2015, in the matter of Entergy Nuclear Operations, Inc.

Dear Ms. Schiffer:

We represent Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc. (together, “Entergy”) in this matter. We write with regard to the objection issued by the New York State Department of State (“NYSDOS”) on November 6, 2015, under the Coastal Zone Management Act regarding the application for federal license renewal of the Indian Point 2 and Indian Point 3 nuclear generating units located in Buchanan, New York.

By letters dated November 10 and 25, 2015, Entergy asked NOAA to invalidate NYSDOS’s objection as a threshold matter because Entergy had withdrawn its certification before NYSDOS issued the objection. NYSDOS, by letter dated November 24, 2015, countered that Entergy’s withdrawal was ineffective. The parties have resolved this dispute by agreeing that NYSDOS will withdraw its challenge to Entergy’s November 5, 2014 withdrawal and proceed as if the withdrawal became effective on November 5, 2014, thus rendering NYSDOS’s November 6, 2015 objection moot and of no effect and requiring Entergy to file a new certification; Entergy will withdraw its request to NOAA for a ruling that the NYSDOS objection is invalid on the ground that Entergy had previously withdrawn the certification addressed by that objection before the objection was issued; Entergy will file a new consistency certification on or before January 31, 2017; and NYSDOS will review and issue a decision on that new consistency certification.

Accordingly, Entergy hereby requests that NOAA deem moot Entergy's request that the November 6, 2015 objection be deemed invalid. Likewise, for this reason, Entergy does not plan to pursue any appeal of the November 2015 objection, which similarly would be moot.

Thank you for your attention to this matter.

Respectfully submitted,

Sanford I. Weisburst

cc: Jeff Dillen (NOAA) jeff.dillen@noaa.gov

David Kaiser (NOAA) david.kaiser@noaa.gov

Sherwin Turk (NRC) Sherwin.Turk@nrc.gov

Linda Baldwin (NYSDOS) linda.baldwin@dos.ny.gov

EXHIBIT C

NL-17-[XXX]

January xx, 2017

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Notice of Withdrawal of Previous Review Claim Pursuant to the New York Coastal Management Program and Coastal Zone Management Act
Indian Point Nuclear Generating Unit Nos. 2 & 3
Docket Nos. 50-247 and 50-286
License Nos. DPR-26 and DPR-64

REFERENCES:

1. Entergy Letter from Fred Dacimo to NRC Document Control Desk, "License Renewal Application" (Apr. 23, 2007) (NL-07-039) (ML071210507)
2. Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 (NUREG-1437, Supplement 38) (Dec. 2010) (ML103350405)
3. Entergy Letter from Fred Dacimo to NRC Document Control Desk, "Supplement to License Renewal Application — Compliance with Coastal Zone Management Act" (July 24, 2012) (NL-12-107) (ML12207A122)
4. Motion and Memorandum by Applicant Entergy Nuclear Operations, Inc. for Declaratory Order That It Has Already Obtained the Required New York State Coastal Management Program Consistency Review of Indian Point Units 2 and 3 for Renewal of the Operating Licenses (July 30, 2012) (ML12212A383)
5. Entergy Letter from Fred Dacimo to NRC Document Control Desk, "Transmittal of Consistency Certification Pursuant to the Coastal Zone Management Act" (Dec. 17, 2012) (NL-12-181) (ML13015A037)
6. Letter from J. Sipos to the ASLB, Attach. 1 (November 6, 2014) (ML14310A346).
7. New York State Department of State Letter to Fred Dacimo, "Coastal Zone Management Act Consistency Determination" (November 6, 2015) (ML15314A013)

8. Letter from Sanford I. Weisburst, Esq., to David Kaiser, NOAA, Purported Objection of New York State Department of State Dated November 6, 2015 (Nov. 10, 2015)
9. Letter from Lois Schiffer, General Counsel, U.S. Dep't of Commerce, to Sanford I. Weisburst, Esq. and Linda Baldwin, Esq., Response to Letter-Requests under the Coastal Zone Management Act in the Matter of Entergy Nuclear Operation, Inc. (Nov. 25, 2015)

Dear Sir or Madam:

Entergy Nuclear Operations, Inc.'s (Entergy) license renewal application (LRA) (Reference 1), as originally filed, and the Final Supplemental Environmental Impact Statement (FSEIS) (Reference 2) issued by the Nuclear Regulatory Commission (NRC) related to the LRA, anticipated that license renewal of Indian Point Unit 2 (IP2) and Unit 3 (IP3) would require a consistency determination by the State of New York (State) pursuant to the Coastal Zone Management Act (CZMA). Entergy subsequently re-evaluated how the CZMA applied to the pending LRA and, as a result, on July 24, 2012, supplemented the Environmental Report (ER) appended to the LRA to state that the LRA is not subject to further consistency review by the State because renewal would not result in coastal effects that are substantially different than effects previously reviewed by the State. (Reference 3)

Shortly thereafter, on July 30, 2012, Entergy filed a motion with the Atomic Safety and Licensing Board (Board) seeking a declaratory order (Motion) that it had already obtained the required consistency review of IP2 and IP3 for renewal of the operating licenses. (Reference 4) Meanwhile, Entergy concluded that it was prudent, in the alternative, to file a consistency certification pursuant to the CZMA, and did so on December 17, 2012. (Reference 5) On June 12, 2013, the Board denied Entergy's Motion, but held that the Motion might be re-filed after consultations between the NRC Staff and the State, pursuant to 15 C.F.R. § 930.51(e). *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), Board Order (Granting New York's Motions, Denying Clearwater's Motion, and Denying CZMA Motions) (unpublished) (June 12, 2013) (ML13163A233). The Staff has since engaged in consultations with the New York State Department of State (NYSDOS) and Entergy, and the matter is still under Staff consideration.

On November 5, 2014, Entergy notified NYSDOS and the NRC that Entergy was voluntarily withdrawing its consistency certification, with the intention to re-file it once NRC had issued FSEIS Supplement 2 that is to include updated aquatic impacts data. (Reference 6). NYSDOS subsequently disputed that Entergy had the ability to withdraw the certification, taking the position that the original certification remained pending.

Entergy's July 24, 2012 ER supplement also stated that the New York Coastal Management Plan exempts both IP2 and IP3 from further review, and therefore also exempts them from the CZMA, by virtue of grandfathering provisions of the NYCMP. On December 11, 2014, the State of New York Supreme Court, Appellate Division, Third Department, issued a decision agreeing with Entergy's position, holding that "Indian Point Nuclear Generating Unit No. 2 and

Indian Point Nuclear Generating Unit No. 3 are exempt from New York's Coastal Management Program." *Entergy Nuclear Operation, Inc. v. N.Y. State Dep't of State*, 125 A.D3d 21, 26 (N.Y. App. Div. 2014). NYSDOS subsequently appealed that decision to the New York Court of Appeals (New York's highest court). The New York Court of Appeals issued its decision on the grandfathering issue on November 21, 2016. *Entergy Nuclear Operation, Inc. v. N.Y. State Dep't of State*, No. 179, slip op. (N.Y. Nov. 21, 2016).

In parallel, on November 6, 2015, NYSDOS objected to Entergy's December 17, 2012 consistency certification. (Reference 7) In response, on November 10, 2015, Entergy sought a determination from the National Oceanic and Atmospheric Administration (NOAA) that NYSDOS's objection was invalid and, in the alternative, sought an extension of time to file a notice of appeal (Reference 8). On November 25, 2015, NOAA issued Entergy an extension of time to file its Notice of Appeal to NYSDOS's objection until 60 days after a decision by the New York Court of Appeals. (Reference 9).

Pursuant to an agreement between Entergy and NYSDOS, among other parties, dated January 9, 2017, regarding the planned cessation of operation of IP2 and IP3, NYSDOS withdrew its challenge to Entergy's November 5, 2014 withdrawal of its consistency certification, and will proceed as if the withdrawal became effective on November 5, 2014, thereby (1) rendering NYSDOS's November 6, 2015 objection moot and of no effect and (2) requiring Entergy to submit a new certification. In accordance with that agreement, Entergy will submit a new consistency certification for NYSDOS review. NYSDOS will issue its decision on the new consistency certification within 30 days after submission.

As a result of the above actions, there is no need at this time for Entergy to pursue arguments regarding previous review or for the Staff, State, and NRC to engage in further consultations on previous review. Entergy today is also notifying NOAA that it no longer plans to pursue an appeal of NYSDOS's objection.

There are no new commitments identified in this submittal. If you have any questions, or require additional information, please contact [name].

Sincerely,

cc: Mr. Daniel Dorman, Regional Administrator, Region I, NRC
Ms. Jane Marshall, Acting Branch Chief, DLR/NRR, NRC
Mr. Michael Wentzel, Project Manager, DLR/NRR, NRC
Mr. Douglas Pickett, Sr. Project Manager, DORL/NRR, NRC
Mr. Sherwin E. Turk, Special Counsel, Office of the General Counsel, NRC
NRC Resident Inspector's Office, Indian Point
Ms. Bridget Frymire, New York State Department of Public Service
Mr. John B. Rhodes, President and CEO, NYSERDA
Ms. Rossana Rosado, Secretary of State, NYSDOS

EXHIBIT D

January , 2017

BY HAND DELIVERY

New York State Department of State
Office of Planning and Development
Attn: Consistency Review Unit
1 Commerce Plaza
99 Washington Avenue-Suite 1010
Albany, New York 12231

Re: Consistency Certification for Entergy Nuclear Indian Point 2 and Entergy Nuclear Indian Point 3 License Renewal Application

Dear Secretary Rosado:

Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc. (collectively, "Entergy") have submitted a license renewal application ("LRA") to the U.S. Nuclear Regulatory Commission ("NRC") requesting renewal of the Operating Licenses for Indian Point Nuclear Generating Units 2 and 3 ("IP2" and "IP3," collectively, "IPEC"). On December 17, 2012, Entergy filed with the New York State Department of State ("NYSDOS"), pursuant to the Coastal Zone Management Act ("CZMA"), a certification stating that renewal of the IPEC operating licenses was consistent with the New York State Coastal Management Program ("NYSCMP"). On November 5, 2014, Entergy withdrew that consistency certification. NYSDOS objected to Entergy's certification on November 6, 2015, and challenged Entergy's withdrawal.

Pursuant to an agreement between Entergy and NYSDOS, among other parties, dated January 9, 2017, NYSDOS withdrew its challenge to Entergy's November 5, 2014 withdrawal of its consistency certification, and agreed to proceed as if the withdrawal became effective on November 5, 2014, thereby (1) rendering NYSDOS's November 6, 2015 objection moot and of no effect and (2) requiring Entergy to submit a new certification. Pursuant to that same agreement, Entergy hereby submits the attached consistency certification for renewal of the IP2 and IP3 operating licenses.

This submission certifies that the proposed activity (renewal of the IPEC operating licenses) is consistent with all applicable and enforceable policies of the NYSCMP² pursuant to the CZMA, 16 U.S.C. § 1451 *et seq.* Accordingly, Entergy requests your concurrence with the enclosed Consistency Certification.

² New York State, Department of State, "New York State Coastal Management Program and Final Environmental Impact Statement," (incorporating approved changes from 1982 to 2006), available at http://www.dos.ny.gov/opd/programs/pdfs/NY_CMP.pdf.

As specified in the NYSCMP and the regulations of the Department of Commerce, National Oceanic and Atmospheric Administration at 10 C.F.R. Part 930, Subpart D, the following documents are attached for your review:

- Entergy's Consistency Certification;
- Entergy's written analysis of the IPEC license renewal consistency with the policies of the NYSCMP;
- Entergy's Federal Consistency Assessment Form and signed consistency certification;
- IPEC site diagram and maps (6-mile and 50-mile radius) showing the geographic location of IPEC;
- Tables showing the environmental permits applicable to current IPEC operations, and the consultations related to IPEC license renewal; and
- List of owners of property abutting IPEC.

Additionally, the following necessary data and information are enclosed via electronic media:

- Entergy's LRA submitted to the NRC requesting renewal of the IPEC operating licenses,³ and the eighteen amendments to the LRA since its original submission in 2007;⁴
- the Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 (Volumes 1-4, plus Draft Volume 5); and
- the New York State Department of Environmental Conservation's ("NYSDEC") final State Pollutant Discharge Elimination System ("SPDES") Permit and accompanying Fact Sheet, and final Water Quality Certification ("WQC"), authorizing continued operation of the Indian Point nuclear facility (Units 2 and 3), with the proposed Supplemental Final Environmental Impact Statement ("FSEIS") and State Environmental Quality Review Act ("SEQRA") documents, including the NYSDEC State Coastal Consistency Form.

Respectfully submitted,

Fred Dacimo
Vice President License Renewal
Indian Point Energy Center

Enclosures as stated

³ The IPEC Environmental Report, submitted as Appendix E to the LRA, includes a description of the proposed activity, its associated facilities, and an analysis of coastal effects, alternatives, and mitigating actions, as well as a statement of the purpose and need for the activity.

⁴ Additional correspondence between Entergy and the NRC regarding the IPEC license renewal proceeding can be accessed via the NRC's official recordkeeping system, known as ADAMS-- <http://adams.nrc.gov/wba> (under the "Content Search" tab, add the document property "Docket Number" and value "05000247" (for IP2) or "05000286" (for IP3)).

cc: Mr. Daniel Dorman, Regional Administrator, Region I, NRC
Ms. Jeffrey J. Rikhoff, Acting Branch Chief, RERP/DLR/NRR, NRC
Mr. William Burton, Sr. Project Manager, RSRG/DLR/NRR, NRC
Mr. Douglas Pickett, Sr. Project Manager, LPL1-1/DORL/NRR, NRC
Mr. Sherwin E. Turk, Special Counsel, Office of the General Counsel, NRC
NRC Resident Inspector's Office, Indian Point
Ms. Bridget Frymire, New York State Department of Public Service
Mr. John B. Rhodes, President and CEO, NYSERDA
Ms. Rossana Rosado, Secretary of State, NYSDOS

ENTERGY CERTIFICATION THAT IPEC LICENSE RENEWAL IS CONSISTENT WITH THE NEW YORK STATE COASTAL MANAGEMENT PROGRAM

Entergy Nuclear Indian Point 2, LLC; Entergy Nuclear Indian Point 3, LLC; and Entergy Nuclear Operations, Inc. (collectively, “Entergy”) hereby provide to the U.S. Nuclear Regulatory Commission (“NRC”) the below certification, pursuant to the requirements of the Coastal Zone Management Act of 1972 as amended (“CZMA”) (16 U.S.C. §§ 1451-1465) and regulations of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (“NOAA”) (15 C.F.R. Part 930, Subpart D), in support of Entergy’s license renewal application (“LRA”) for Indian Point Nuclear Generating Units 1 & 2 (“IP2” and “IP3,” collectively, “IPEC”).

CONSISTENCY CERTIFICATION

Entergy certifies to the NRC and the New York Department of State (“NYSDOS”) that the proposed renewal of the IP2 and IP3 Operating Licenses complies with the enforceable policies of the New York State Coastal Management Program (“NYSCMP”) and that continued operation of IPEC will be conducted in a manner consistent with the NYSCMP. Entergy expects IP2 and IP3 operations during the period of extended operation (“PEO”) to be a continuation of current operations as described below, with no physical or operational station alterations that would affect New York State’s coastal zone.

NECESSARY DATA AND INFORMATION

Federal Statutory and Regulatory Background

The CZMA imposes requirements on an applicant for a Federal license to conduct a review of an activity that could affect a state’s coastal zone. The Act requires an applicant to certify to the Federal licensing agency that the proposed action would be consistent with the state’s federally approved coastal zone management program. The Act also requires the applicant to provide to the state a copy of the certification statement and requires the state, at the earliest practicable time, to notify the Federal agency and the applicant whether the state concurs with, or objects to, the consistency certification. *See* 16 U.S.C. § 1456(c)(3)(A).

NOAA promulgated implementing regulations making the certification requirement applicable to renewal of Federal licenses for activities not previously reviewed by the state. *See* 15 C.F.R. § 930.51(b)(1). NOAA approved the NYSCMP in 1982.

New York State Coastal Management Program

The NYSCMP is administered by the Office of Planning and Development in the NYSDOS. For Federal agency activities, NYSDOS reviews projects to ensure adherence to the State program or an approved Local Waterfront Revitalization Program. Applicants for Federal agency approvals or authorizations are required to submit copies of Federal applications to NYSDOS, together with a Federal Consistency Assessment Form and the consistency certification. The Department reviews the consistency certification and proposal for consistency with the NYSCMP as

documented in 44 specific policies established in the Department’s 1982 Final Environmental Impact Statement. The policies articulate the State’s vision for its coast by addressing the following areas:

- Development
- Fish and Wildlife
- Flooding and Erosion Hazards
- General
- Public Access
- Recreation
- Historic and Scenic Resources
- Agricultural Lands
- Energy and Ice Management
- Water and Air Resources

Appendix A to this Determination identifies the 44 NYSCMP policies and Entergy’s justification for certifying compliance.

Proposed Action

Entergy operates IPEC pursuant to NRC Operating Licenses DPR-26 (Unit 2) and DPR-64 (Unit 3). Entergy submitted a license renewal application (“LRA”) to the NRC requesting renewal of these operating licenses for an additional 20 years beyond the current expiration dates (the period of extended operation, or “PEO”). The Unit 2 and Unit 3 licenses were set to expire September 28, 2013, and December 12, 2015, respectively, but continue in force under the NRC’s “timely renewal” provision (10 C.F.R. § 2.109(b)) until the NRC makes a final determination on the LRA. Entergy expects IPEC operations during the PEO to be a continuation of current operations as described below, with no physical or operational changes that would affect the New York State coastal zone. License renewal would give Entergy the option of relying on IPEC to meet a portion of New York State’s future needs for electric generation.

Table 1 lists consultations related to IPEC license renewal, Table 2 lists environmental permits applicable to current IPEC operations, and Table 3 lists owners of properties abutting IPEC.

On [MMDDYY], the New York State Department of Environmental Conservation (“NYSDEC”) issued a final State Pollutant Discharge Elimination System (“SPDES”) Permit and a final Water Quality Certification (“WQC”) for the continued operation of IPEC, pursuant to a stipulation that includes Entergy’s commitment that IP2 shall permanently cease operations no later than April 30, 2020, and IP3 shall permanently cease operations no later than April 30, 2021; provided, however, the operation of either IP2, IP3, or both units, may be extended upon the mutual agreement of NYS and Entergy, which shall take account of, and be made in accordance with, applicable law and regulatory requirements. Copies of the SPDES Permit and WQC are included with this Certification. Entergy intends to comply fully with the commitments, conditions and requirements of the SPDES Permit and WQC for continued operations through retirement.

IPEC Description

IPEC is located on approximately 239 acres of land on the east bank of the Hudson River at Indian Point, Village of Buchanan in upper Westchester County, New York. The site is about 24 miles north of the New York City boundary line. The nearest city is Peekskill, 2.5 miles northeast of Indian Point. *See Figs. 2 & 3.*

The layout of IPEC is shown in [Figure 1](#). The plant consists of two pressurized water reactors with steam generators that produce steam which then turns turbines to generate electricity. Unit 2 is capable of an output of 3,216 megawatts (thermal) [MW(t)], with a corresponding net electrical output of approximately 1,078 megawatts (electric) [MW(e)]. Unit 3 is capable of an output of 3,216 MW(t), with a corresponding net electrical output of approximately 1,080 MW(e).

The circulating water systems for IP2 and IP3 include shoreline-situated intake structures along the Hudson River consisting of seven bays (six for circulating water and one for service water) for each unit. The circulating water intake bays have state-of-the-art, optimized, vertical Ristroph-type traveling water screens, developed and tested in concert with fisheries experts, including from the Hudson River Fisherman's Association, to minimize (impingement) impacts to fish. These screens have become the model for the United States Environmental Protection Agency's national rule on circulating water systems, and continued operation of these systems during the license renewal period was authorized in 2013 by the National Marine Fisheries Services as protective of federally listed sturgeon. Then, the water from each individual screenwell flows to a motor-driven, vertical, mixed flow condenser circulating water pump. After moving through the condensers, cooling water from IP2 and IP3 flows downward from the discharge water boxes via six 96-inch diameter down pipes and exits beneath the water surface in a 40-foot wide discharge canal. The cooling water from the canal is released into the Hudson River through an outfall structure located south of IP3, which was designed to and has been demonstrated to the satisfaction of NYSDEC to enhance mixing of cooling water and River water to minimize potential thermal impacts to the River in compliance with all applicable New York water quality standards.

Sanitary wastewater is transferred to the Village of Buchanan publicly owned treatment works system where it is managed appropriately, except for a few isolated areas which have their own septic tanks which are pumped out by a septic company, as needed, and taken to an offsite facility for appropriate management. Although the sanitary wastewaters are nonradioactive, a continuous radiation monitoring system is provided.

Entergy employs a permanent workforce of approximately 1,100 employees at IPEC. The majority of the IPEC workforce lives in Dutchess, Orange, and Westchester Counties. The site workforce increases by approximately 950 workers for temporary (approximately 30 days) duty during staggered refueling outages that occur about every 24 months for each unit.

In compliance with the NRC regulations, Entergy has analyzed the effects of plant aging and identified activities needed for IPEC to operate for an additional 20 years. IPEC license renewal would involve no major plant refurbishment.

Power is delivered to the ConEdison transmission grid via two double-circuit 345-kV lines that connect the IP2 and IP3 main transformers to the Buchanan substation located across Broadway near the main entrance to IPEC. Except for the point where they cross over Broadway, the lines are located within the site boundary, are approximately 2,000 feet in length, and were constructed using tubular-steel transmission poles. ConEdison addresses impacts to the transmission line corridors in accordance with its vegetative management plan.

In 2010, IPEC generation represented approximately 10 percent of the total electricity consumption in New York State, 17 percent of the total electricity consumption in the Southeastern New York area, and up to 30 percent of the New York City area's base-load electricity. IPEC generates more electrical energy than any other facility in the Empire State.

Environmental Impacts

The NRC's *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* ("License Renewal GEIS") analyzes the environmental impacts associated with the renewal of nuclear power plant operating licenses. The NRC codified its findings regarding these impacts at 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1. The codified findings (applicable as of the date the LRA was submitted to the NRC⁵) identify 92 potential environmental issues. The NRC's *Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3* ("IPEC SEIS") documents the NRC's consideration of these topics as they pertain to IPEC license renewal.

Category 1 Issues (Generically Applicable)

The NRC generically identified 69 "Category 1" issues as having SMALL impacts.⁶ A SMALL significance level is defined by the NRC as follows:

For the issue, environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. For the purpose of assessing radiological impacts, the Commission has concluded that those impacts that do not exceed permissible levels in the Commission's regulations are considered small as the term is used in this table. (10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1)

10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1 and the License Renewal GEIS discuss the following types of Category 1 environmental issues:

- Surface water quality, hydrology, and use;
- Aquatic ecology;
- Groundwater use and quality;

⁵ The NRC updated the License Renewal GEIS and corresponding table in 10 C.F.R. Part 51 following submission of the IPEC LRA. Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 78 Fed. Reg. 37,282 (June 20, 2013). The update resulted in consolidation and reclassification of certain issues such that the updated table now identifies 78 issues, rather than 92. *Id.*

⁶ The revised License Renewal GEIS and table in 10 C.F.R. Part 51 now identify 59 "Category 2" issues, rather than 69.

- Terrestrial resources;
- Air quality;
- Land use;
- Human health;
- Socioeconomics;
- Uranium fuel cycle and waste management; and
- Decommissioning.

Absent findings of new and significant information, the NRC will rely on its codified findings, as amplified by supporting information in the License Renewal GEIS, for its assessment of environmental impacts associated with license renewal. Entergy has not identified any new and significant information, and has adopted by reference the License Renewal GEIS analysis for all Category 1 issues.⁷

Category 2 Issues (Plant-Specific)

The NRC also identified 21 issues as “Category 2,” for which license renewal applicants must submit additional, site-specific information.⁸ Summaries of the conclusions⁹ for each subcategory of applicable¹⁰ issues are as follows:

Aquatic ecology: Historic and current studies have shown no negative trend in overall aquatic River species populations related to plant operations. The final SPDES permit will ensure impacts remain SMALL.¹¹

⁷ This includes the nine new or amended Category 1 issues in the revised License Renewal GEIS and table in 10 C.F.R. Part 51. See NL-15-028, Letter from F. Dacimo, Entergy, to NRC, Reply to Request for Additional Information Regarding the License Renewal Application Environmental Review (TAC Nos. MD5411 and MD5412), Attachment at 3-29 (Mar. 10, 2015). See also IPEC SEIS (documenting the NRC’s consideration of these topics; Volume 5 considers the new or amended Category 1 issues).

⁸ The revised License Renewal GEIS and table in 10 C.F.R. Part 51 now identify 17 “Category 2” issues, rather than 21.

⁹ As to the new or amended Category 2 issues in the revised License Renewal GEIS and table in 10 C.F.R. Part 51, Entergy concluded that: the potential environmental impacts would be SMALL for Terrestrial Resources and Groundwater Resources; the NRC’s SMALL Environmental Justice conclusion in the Indian Point License Renewal GEIS remains valid; and cumulative impacts on the listed resource areas would be SMALL, but, if climate change is considered a cumulative impact contributor, then the cumulative impact on Water Resources could range from SMALL to MODERATE. See NL-15-028 at 30-39. Although the NRC has proposed, in a draft supplement to the IPEC SEIS, to conclude that impacts to on-site Groundwater Resources may be MODERATE at present (but acknowledging they may move to SMALL due to natural attenuation), see IPEC SEIS, Draft Vol. 5, Entergy has submitted additional information rebutting the NRC’s conclusion and showing the impacts to on-site groundwater resources are SMALL. See NL-16-021, Letter from F. Dacimo, Entergy, to C. Bladey, NRC, Comments on Second Draft Supplement to Final Supplemental Environmental Impact Statement for Indian Point License Renewal (Mar. 4, 2016); NL-16-044, Letter from F. Dacimo, Entergy, to C. Bladey, NRC, Entergy’s Corrections and Clarifications in Response to Third-Party Comments on the NRC’s Second Draft Supplement to the Final Supplemental Environmental Impact Statement for Indian Point Nuclear Generating Units 2 and 3 License Renewal (Apr. 25, 2016).

¹⁰ Some Category 2 issues are applicable to plants having features that are not present at IPEC, or apply only to activities that are not proposed as part of the IPEC license renewal.

¹¹ Although the NRC has proposed, in a draft supplement to the IPEC SEIS, to conclude that impacts to Aquatic Ecology would be SMALL to MODERATE, see IPEC SEIS, Draft Vol. 5, Entergy has submitted additional information rebutting some of the NRC’s species-specific conclusions. See NL-16-021; NL-16-044.

Threatened and endangered species: Entergy has no plans to perform major refurbishment activities; therefore, impacts due to refurbishment are not expected. The final SPDES permit will ensure impacts to these species through license renewal would be SMALL.

Human Health: IPEC transmission lines meet the National Electric Safety Code® recommendations for preventing electric shock from induced currents; therefore, the impact related to license renewal would be SMALL.

Socioeconomics: Entergy has no plans for refurbishment activities and does not anticipate increasing its workforce during the period of extended operation. Therefore, any impacts on local transportation, available housing, and local water systems would be SMALL.

Offsite land use: Entergy has no plans to perform major refurbishment activities; therefore, any impacts due to license renewal would be SMALL.

Historic and archeological resources: Entergy has no plans to perform major refurbishment activities; therefore, impacts due to license renewal would be SMALL.

Severe accident mitigation alternatives (“SAMA”):¹² Entergy identified certain potentially cost-beneficial modifications that may have the potential to reduce the impacts of a severe accident. However, none relate to adequately managing the effects of aging during the period of extended operation. Thus, any impacts related to license renewal would be SMALL.

Category N/A Issues (Not Categorized)

The NRC identified two issues as “Category N/A,” for which the 10 C.F.R. Part 51 categorization and impact findings do not apply.¹³ Summaries of the conclusions for these two issues are as follows:

Environmental Justice: Entergy has no plans to perform major refurbishment activities; therefore there would be no adverse impacts to minority and low income populations from such activities in the vicinity of IP2 and IP3. Environmental Justice impacts of continued plant operation during the license renewal period would be SMALL.

¹² On September 12, 2016, the NRC issued requests for additional information to Entergy regarding the IPEC SAMA analyses; Entergy’s answers are due by January 10, 2017. The NRC may present its evaluation of this information in a further volume of the IPEC SEIS, if warranted.

¹³ Environmental justice was not evaluated on a generic basis and must be addressed in a plant specific supplement to the GEIS. Information on the chronic effects of electromagnetic fields was not conclusive at the time the GEIS was prepared.

Electromagnetic Fields: The NRC staff has determined that appropriate Federal health agencies have not reached a consensus on the existence of chronic adverse effects from electromagnetic fields. Therefore, no further evaluation of this issue is required.¹⁴

Findings

1. The NRC has determined that the significance of Category 1 issue impacts is SMALL. Entergy has adopted by reference the NRC findings for Category 1 issues.
2. For applicable Category 2 issues, Entergy has determined that the environmental impacts are SMALL¹⁵ as that term is defined by the NRC. Impact to the coastal zone, therefore, would also be SMALL.
3. To the best of its knowledge, Entergy is in compliance with New York licenses, permits, approvals, and other requirements as they apply to IPEC impacts on the New York coastal zone.
4. IPEC license renewal and continued operation of IPEC facilities, and their effects, are all consistent with the enforceable policies of the New York Coastal Management Program.

State Notification

By this Certification, the State of New York is notified that the IPEC license renewal is consistent with the New York State Coastal Management Program. Attached to this Certification is a completed New York State Department of State Federal Consistency Assessment Form. The State's concurrence, objections, or notification of review status shall be sent to the following contacts:

Entergy's counsel for this matter:

William B. Glew, Jr., Esq.
Entergy Services, Inc.
440 Hamilton Avenue
White Plains, NY 10601
Telephone: (914) 272-3360
E-mail: wglew@entergy.com

Kathryn Sutton
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

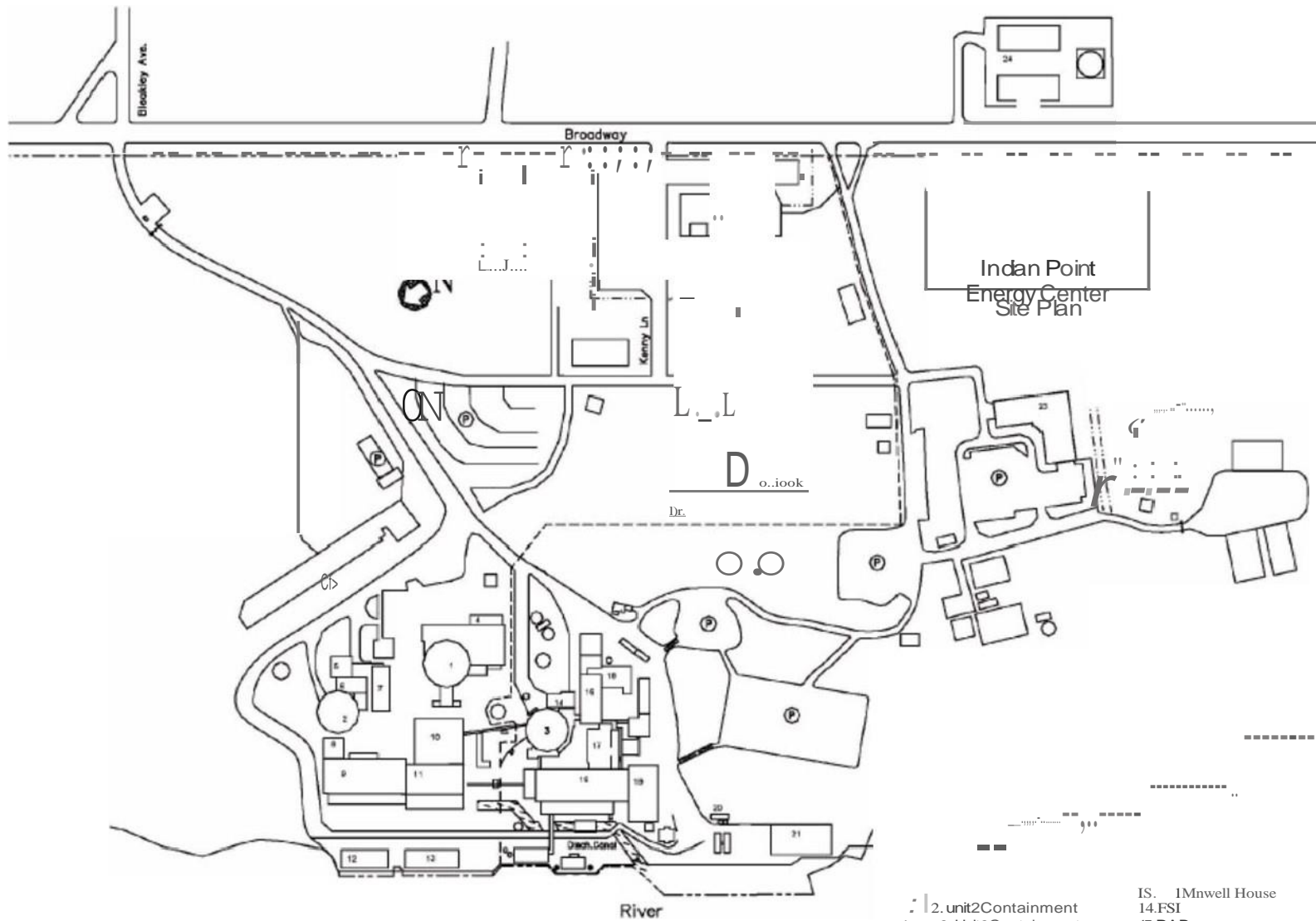
The NRC project manager for this matter:

Mr. William Burton
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Telephone: +1 301.415.6332
Email: william.burton@nrc.gov

¹⁴ The revised License Renewal GEIS and table in 10 C.F.R. Part 51 continue to identify the chronic effects of electromagnetic fields as N/A.

¹⁵ As noted above, Entergy has submitted information rebutting the NRC's draft proposed conclusions regarding Groundwater Resources, and some species-specific findings regarding Aquatic Ecology. *See supra* notes 9, 12. Cumulative impacts on the listed resource areas will be SMALL unless climate change is considered a cumulative impact contributor, in which case the cumulative impact could range from SMALL to MODERATE.

Telephone: +1 202.739.5738
Email: kathryn.sutton@morganlewis.com



- | | |
|--------------------------|-------------------------------|
| 2. unit2Containment | 15. 1Mnwell House |
| 3. Unit3Containm....t | 14. FSI |
| 4. Chem. Systems Bldg. | 15. PAB |
| 5. M.O.8. | 16. AAMS |
| 6. PABIFSB | 11. Controlftoom |
| 7. EDG | 18. Unk3Turb.,. BldJ. |
| 8. Aux. Boli.t" FHdBldg. | 18. A<lmin. Bldg. |
| 8. Unit2Turbine Ilkg. | 20. Sewail* Trelltmeot PllInt |
| 10. TSC | 21. WarllhOUH |
| 11. Unit 1Turbine Bld(l. | 22. krvice Cen18"EOF |
| 12. unit 2ntilte | 23. TrainingCenter |
| | 24. GTZfGT3 |
| | 25. 0Q Tonks |

Hudson

FIGURE 2 -50 Mile Radius



FIGURE 3-6 Mile Radius



TABLE 1 – Consultations

Agency ¹⁶	Authority	Activity Covered
U.S. Fish and Wildlife Service and National Marine Fisheries Service	Endangered Species Act Section 7 (16 USC 1636)	Requires federal agency issuing a license to consult with USFWS and NMFS.
New York Natural Heritage Program	Endangered Species Act Section 7 (16 USC 1636)	Requires federal agency issuing a license to consult with the fish and wildlife agency at the state level.
New York State Office of Parks, Recreation, and Historic Preservation	National Historic Preservation Act Section 106	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO
New York State Department of State	Federal Coastal Zone Management Act (16 USC 1451 et seq.)	Requires an applicant to provide certification to the federal agency issuing the license and to the designated state agency that license renewal would be consistent with the federally-approved state coastal zone management program.
New York State Department of Environmental Conservation	Clean Water Act Section 401 (33 USC 1341)	Requires New York State certification that discharge would comply with state water quality standards

¹⁶ Consultations with additional non-federal and non-NYS entities are included in the IPEC SEIS, Volume 3, Appendix E.

TABLE 2 – Environmental Permits

Agency	Authority	Description	Number	Expiration Date
USNRC	Atomic Energy Act, 10 CFR 50	IP1 License to Possess	DPR-5	September 28, 2013
USNRC	Atomic Energy Act, 10 CFR 50	IP2 License to Operate	DPR-26	September 28, 2013 ¹
USNRC	Atomic Energy Act, 10 CFR 50	IP3 License to Operate	DPR-64	December 12, 2015 ¹
USDOT	49 CFR 107, Subpart G	IP2 DOT Hazardous Materials Certificate of Registration	060415600002X2	June 30, 2018
USDOT	49 CFR 107, Subpart G	IP3 DOT Hazardous Materials Certificate of Registration	060415600003X2	June 30, 2018
NYSDEC	6 NYCRR Part 325	IP2 Pesticide Application Business Registration	12696	April 30, 2018
NYSDEC	6 NYCRR Part 325	IP3 Pesticide Application Business Registration	13163	April 30, 2018
NYSDEC	6 NYCRR Parts 704 and 750	IP1, 2, and 3 SPDES Permit	NY 000 4472	October 1, 1992 ²
NYSDEC	6 NYCRR Part 704	Simulator Transformer Vault SPDES Permit	NY 025 0414	March 31, 2018
NYSDEC	6 NYCRR Part 704	Buchanan Gas Turbine SPDES Permit	NY 022 4826	February 28, 2018
NYSDEC	6 NYCRR Parts 200 and 201	IP2 & IP3 Air Permit	3-5522-00011/00026	11/20/2024
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP2 Gas Turbine 1 Air Permit	#00021	December 31, 2018

TABLE 2 – Environmental Permits (Cont.)

Agency	Authority	Description	Number	Expiration Date
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP2 Gas Turbine 3 Air Permit	#00023	December 31, 2018 ²
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP2 Boiler Permit	52-4493	Not Applicable
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP2 Vapor Extractor Air Permit	52-5682	December 31, 2012 ²
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP3 Boiler Permit	52-6497	No Expiration Date
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP3 Training Center Boiler Permit	52-6498	No Expiration Date
WCDOH	Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County	IP3 Vapor Extractor Air Permit	-- ³	-- ³
NYSDEC	6 NYCRR Part 610	IP2 Major Oil Storage Facility	3-2140	-- ²
WCDOH	Westchester County Sanitary Code, Article XXV	IP3 Petroleum Bulk Storage Registration Certificate	3-166367	September 7, 2020
NYSDEC	6 NYCRR Part 372	IP2 Hazardous Waste Generator Identification	NYD991304411	No Expiration Date

TABLE 2 – Environmental Permits (Cont.)

Agency	Authority	Description	Number	Expiration Date
NYSDEC	6 NYCRR Part 372	IP3 Hazardous Waste Generator Identification	NYD085503746	No Expiration Date
NYSDEC	6 NYCRR Part 373	IP2 Hazardous Waste Part 373 Permit	NYD991304411	February 28, 2007 ²
USEPA	40 CFR 264	IP2 Hazardous Solid Waste Amendment Permit	NYD991304411	October 14, 2002 ⁴
USEPA	40 CFR 264	IP3 Hazardous Solid Waste Amendment Permit	NYD085503746	October 17, 2001 ⁴

Notes:

Current as of December 2012.

- (1) Timely renewal application was submitted; having met the requirements in 10 CFR 2.109, Entergy is allowed to continue to operate IP2 and IP3 under the existing licenses until the NRC reaches a final decision on the license renewal request.
- (2) Timely renewal application was submitted; therefore, permit is administratively continued under New York State Administrative Procedures Act.
- (3) Application has been submitted to WCDOH, but a permit has not yet been issued.
- (4) Permit has been administratively continued based on conditional mixed waste exemption.

CFR = Code of Federal Regulations

USDOT = U.S. Department of Transportation

USEPA = U.S. Environmental Protection Agency

IP1 = Indian Point, Unit 1

IP2 = Indian Point, Unit 2

IP3 = Indian Point, Unit 3

USNRC = U.S. Nuclear Regulatory Commission

NYCRR = New York Codes, Rules, and Regulations

NYSDEC = New York State Department of Environmental Conservation

TABLE 3 – Owners of Properties Abutting IPEC

Tax Assessor Map Parcel Identification Number	Name & Current Address of Owner (as provided in Tax Assessors Database)	Property Address (as Provided in Tax Assessors Database)
Abutters to Entergy's License Renewal -related properties, as identified above		
43.6-1-2	NEW YORK STATE ATOMIC & SPACE AUTHORITY EMPIRE STATE PLAZA-NEW YORK STATE DE A BUILDING 4 ALBANY NY 12223	HUDSON RIVER
43.7-1-1	VILLAGE OF BUCHANAN PARK TATE AVE BUCHANAN NY 10511	BROADWAY
43.10-1-2	Continental Buchanan 350 BROADWAY BUCHANAN NY 10511	350 BROADWAY
43.11-1-1	CREX-DIMAR B LLC C/O GLENN GRIFFEN 1234 LINCOLN TERRACE PEEKSKILL NY 10566	BLEAKLEY AVE & BROADWAY
43.11-2-1	RITORNATO SANDRA L 14 COACH LIGHT SQ MONTROSE NY 10548	300 BLEAKLEY AVE
43.11-2-31	CON EDISON CO OF NY TAX DEPARTMENT C/O: STEPHANIE J. MERRIT 4 IRVING PL RM 74 NEW YORK NY 10003	BROADWAY
43.11-2-33	CON EDISON CO OF NY TAX DEPARTMENT C/O: STEPHANIE J. MERRIT 4 IRVING PL RM 74 NEW YORK NY 10003	BROADWAY
43.11-2-34	MANNFOLK MARY M 461 BROADWAY BUCHANAN NY 10511	461 BROADWAY
43.14-2-1	CON EDISON CO OF NY TAX DEPARTMENT C/O: STEPHANIE J. MERRIT A 4 IRVING PL RM 74 NEW YORK NY 10003	375 BROADWAY
43.14-2-2	ST MARYS ROMAN CEMETERY CEMETERY PO BOX 609 VERPLANCK NY 10596	345 BROADWAY

TABLE 3 – Owners of Properties Abutting IPEC (Cont.)

Tax Assessor Map Parcel Identification Number	Name & Current Address of Owner (as provided in Tax Assessors Database)	Property Address (as Provided in Tax Assessors Database)
43.14-3-1	Town of Cortlandt 1 Heady Street Cortlandt Manor, NY 10567	BROADWAY
43.14-3-2	HICKEY JOSEPH W & JULIA 320 BROADWAY PO BOX 701 VERPLANCK NY 10596	320 BROADWAY
43.15-1-13	DECRENZA JOHN 142 WESTCHESTER AVE BUCHANANNY 10511	142 WESTCHESTER AVE
43.15-1-14	Mary Quinn 148 WESTCHESTER AVE BUCHANANNY 10511	148 WESTCHESTER AVE
43.15-1-16	CENTRAL SCHOOL DISTRICT 3 TROLLEY RD MONTROSE NY 10548	WESTCHESTER AVE
43.15-1-21	CENTRAL SCHOOL DISTRICT 3 TROLLEY RD MONTROSE NY 10548	WESTCHESTER AVE
43.18-1-1	MC GUIGAN JOSEPH & ELIZABETH PO BOX 273 303 BROADWAY VERPLANCK NY 10596	303 BROADWAY
43.18-1-2	KEESLER FREDERICK F & MARGARET PO BOX 136 VERPLANCK NY 10596	38 MANOR LN
43.18-1-5.1	COUGHLANE ILEEN PO BOX 746 33 MANOR LN VERPLANCK NY 10596	33 MANOR LN
43.18-2-1	KERTELITS THOMAS J & KELLY H 3 PHEASANTS RUN BUCHANANNY 10511	3 PHEASANTS RUN
43.18-2-14	SCHNEIDER ROBERT L & RENEE 5 PHEASANTS RUN BUCHANANNY 10511	5 PHEASANTS RUN

APPENDIX A

ENERGY ANALYSIS OF IPEC LICENSE RENEWAL CONSISTENCY WITH THE POLICIES OF THE NEW YORK STATE COASTAL MANAGEMENT PROGRAM

POLICY	JUSTIFICATION / CONSISTENCY
DEVELOPMENT	
<p style="text-align: center;"><u>1: Waterfront Redevelopment</u></p> <p>Restore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational, and other compatible uses.</p>	<p>Policy 1 is inapplicable. IPEC already exists as a highly productive well maintained waterfront facility within Buchanan. If and to the extent Policy 1 is deemed applicable to License Renewal, IPEC License Renewal is fully consistent with Policy 1.</p>
<p style="text-align: center;"><u>2: Water-dependent Uses</u></p> <p>Facilitate the siting of water dependent uses and facilities on or adjacent to coastal waters.</p>	<p>Policy 2 is inapplicable. License Renewal does not involve the siting of new facilities within the coastal zone. IPEC is an existing water-dependent use located within the coastal zone. If and to the extent Policy 2 is deemed applicable to License Renewal, IPEC License Renewal is fully consistent with Policy 2.</p>
<p style="text-align: center;"><u>3: Development of New York's Major Ports</u></p> <p>Further develop the state's major ports of Albany, Buffalo, New York, Ogdensburg, and Oswego as centers of commerce and industry, and encourage the siting, in these port areas, including those under the jurisdiction of state public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.</p>	<p>Policy 3 is inapplicable to IPEC License Renewal. IPEC is not within and will not affect any of the ports identified in Policy 3.</p>
<p style="text-align: center;"><u>4: Encouraging Development of Small Harbors</u></p> <p>Strengthen the economic base of smaller harbor areas by encouraging the development and enhancement of those traditional uses and activities which have provided such areas with their unique maritime identity.</p>	<p>Policy 4 is not applicable to IPEC License Renewal. Buchanan does not have a "small harbor." License Renewal will not affect any small harbors.</p>
<p style="text-align: center;"><u>5: Development in Areas with Adequate Essential Services and Facilities</u></p> <p>Encourage the location of development in areas where public services and facilities essential to such development are adequate.</p>	<p>IPEC License Renewal will not entail new development, but rather continued generation of reliable, virtually emission-free energy for New York State consumers at an existing industrial center that has adequate infrastructure to support both current and future operations under License Renewal. IPEC License Renewal will not trigger the need for additional infrastructure, such as roads, water or sewer services, schools or other social services, or additional transmission facilities. If and to the extent Policy 5 is deemed applicable to License Renewal, IPEC License Renewal is fully consistent with Policy</p>

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	5.
<p><u>6: Expedited Permitting for Development Activities</u></p> <p>Expedite permit procedures in order to facilitate the siting of development activities at suitable locations.</p>	<p>Policy 6 is inapplicable to IPEC License Renewal. License Renewal does not entail the siting of new development activity within the coastal zone or state and local permitting for the same.</p>
FISH AND WILDLIFE	
<p><u>7: Significant Coastal Fish and Wildlife Habitats (“SCFWH”)</u></p> <p>Significant coastal fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.</p>	<p>No new construction or activities are proposed as part of IPEC License Renewal that reasonably could be expected to raise Policy 7 concerns, even for nearby SCFWHs. Extensive data collected under the oversight and direction of the New York State Department of Environmental Conservation (“NYSDEC”) regarding the effects of IPEC operations on aquatic organisms, populations, and communities over a 35-year period indicate that IPEC cannot reasonably be considered to have caused an adverse impact on habitats within the Hudson River, let alone in a nearby SCFWH,¹⁷ including Hudson Highlands, and no destruction or significant impairment of such habitat can reasonably be expected from continued operations during the License Renewal period. Moreover, adequate assurances of protection exist under applicable New York law, including the State Pollutant Discharge Elimination System (“SPDES”) program, pursuant to which NYSDEC assures IPEC’s compliance with applicable Federal and State law. Therefore, if and to the extent Policy 7 is deemed applicable, IPEC License Renewal is fully consistent with Policy 7.</p>
<p><u>8: Hazardous Wastes and Pollutants that Bioaccumulate or Cause Lethal or Sub-lethal Effects</u></p> <p>Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bioaccumulate in the food chain or which cause significant sub-lethal or lethal effects on those</p>	<p>IPEC License Renewal will result in the continuation of existing operations. Based on over 40 years of operation, historic discharges by IPEC of pollutants or hazardous substances have not caused sub-lethal or lethal effects on the Hudson River’s aquatic biota and have not bioaccumulated in aquatic food chains. IPEC is and will continue to be extensively regulated</p>

¹⁷ Note that the August 15, 2012 revisions to SCFWH definitions in the NYCMP, including Hudson Highlands, are not applicable to the IPEC license renewal application. In its approval of those revisions, NOAA explained that “new and revised enforceable policies shall only be applied to applications for federal authorization filed *after* [NOAA]’s approval.” Letter from J. Gore, NOAA, to G. Stafford, NYSDOS at 1 (Nov. 30, 2012) (emphasis added).

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resources.	by NYSDEC. If and to the extent Policy 8 is deemed applicable, IPEC License Renewal is consistent with Policy 8.
<p style="text-align: center;"><u>9: Recreational Use of Fish and Wildlife Resources</u></p> <p>Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources.</p>	No new construction or operational changes are proposed as part of IPEC License Renewal. Data from recent creel surveys, data collected through the Hudson River Biological Monitoring Program (“HRBMP”) for over 35 years, and analysis of IPEC’s operations indicate that IPEC has not impeded existing use or development of the recreational fisheries. Policy 9 is inapplicable to IPEC License Renewal. However, IPEC License Renewal is fully consistent with Policy 9 if and to the extent it is deemed applicable.
<p style="text-align: center;"><u>10: Commercial Fishing</u></p> <p>Further develop commercial finfish, shellfish, and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the State’s seafood products, maintaining adequate stocks, and expanding aquaculture facilities.</p>	No new construction or operational changes are proposed as part of IPEC License Renewal. Data collected through the HRBMP for over 35 years, and analysis of IPEC’s operations, indicate that IPEC has not impeded existing development of commercial fisheries. Therefore, if and to the extent that Policy 10 is deemed applicable, IPEC License Renewal is fully consistent with Policy 10.
FLOODING AND EROSION HAZARDS	
<p style="text-align: center;"><u>11 through 14 –Siting Structures to Minimize Flooding and Erosion</u></p> <p>11: Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.</p> <p>12: Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands, and bluffs.</p> <p>13: The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.</p> <p>14: Activities and development, including the</p>	<p>Policies 11 through 14 are inapplicable to License Renewal. The IPEC site is not in a NYSDEC-designated coastal erosion hazard area, and only those facilities located immediately adjacent to the shoreline are within the 100-year floodplain. The remaining portions of the site are outside the 500-year floodplain. No new erosion control structures are proposed as part of License Renewal. If and to the extent Policies 11 through 14 are deemed applicable, IPEC License Renewal is fully consistent with any relevant aspects of Policies 11 through 14.</p>

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construction or reconstruction of erosion protection structures, shall be undertaken so that there will be no measurable increase in erosion or flooding at the site of such activities or development, or at other locations.	
<p><u>15: Mining, Excavating, or Dredging</u> Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.</p>	Policy 15 is inapplicable to License Renewal. No maintenance dredging is proposed as part of IPEC License Renewal. Any future dredging that may be required would be implemented pursuant to applicable federal and/or State permits which would ensure that any dredging would not cause coastal erosion or flooding.
<p><u>16: Public Funding for Erosion Protection</u> Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long term monetary and other costs including the potential for increasing erosion and adverse effects on natural protective features.</p>	IPEC License Renewal would not use public funds for erosion protective structures. Thus, Policy 16 is not applicable to IPEC License Renewal.
<p><u>17: Non-Structural Measures for Flood and Erosion Control</u> Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.</p>	Policy 17 is not applicable to License Renewal. IPEC does not and will not require non-structural measures to minimize damage to natural resources and property from flooding and erosion. If and to the extent Policy 17 is deemed applicable, IPEC License Renewal is fully consistent with Policy 17.
GENERAL	
<p><u>18: Safeguarding the State's Vital Economic, Social and Environmental Interests</u> To safeguard the vital economic, social, and environmental interests of the state and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the state has established to protect valuable coastal resource areas.</p>	<p>IPEC License Renewal will protect the welfare of New York's citizenry by preserving and maintaining a virtually emission-free, reliable, lower cost energy resource; important employment opportunities; and financial support to local communities.</p> <p>IPEC License Renewal will safeguard the environment. IPEC License Renewal allows New York State to address air quality standards, to address global warming, and to minimize the precursors to acid rain, while at the same time adequately safeguarding its environmental interests in the coastal zone. If</p>

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	and to the extent that Policy 18 may be deemed applicable, IPEC License Renewal is fully consistent with Policy 18.
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PUBLIC ACCESS	
<p><u>19 and 20 – Public Access</u></p> <p>19: Protect, maintain, and increase the level and types of access to water-related recreation resources and facilities.</p> <p>20: Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly owned shall be provided and it shall be provided in a manner compatible with adjoining uses.</p>	<p>Policies 19 and 20 do not apply to IPEC License Renewal. IPEC is an existing facility and no new facilities or operations are proposed that could interfere with public access to publically-owned foreshore or recreational resources.</p> <p>IPEC License Renewal will not reduce access to water-related recreational resources or the publicly-owned foreshore or recreational resources. The only publicly-owned lands near IPEC are Lents Cove Village Park and the Westchester RiverWalk. Lents Cove Village Park already has water access and the purpose of the Westchester RiverWalk is to link existing water-related recreational resources, such as Lents Cove and Steamboat.</p> <p>If and to the extent Policies 19 and 20 are deemed applicable to IPEC, continued operation under IPEC License Renewal is fully consistent with Policies 19 and 20. In fact, the many publicly-owned and publically-funded recreational areas in the vicinity of IPEC have been constructed or improved during the past 15 years with the indirect financial support of IPEC's payments-in-lieu-of-taxes.</p>
RECREATION	
<p><u>21 and 22 – Water-Related Recreational Opportunities</u></p> <p>21: Water-dependent and water-enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related uses along the coast.</p> <p>22: Development, when located adjacent to the shore, will provide for water-related recreation, whenever such is compatible with reasonably anticipated demand for activities, and is compatible with the primary purpose of the development.</p>	<p>Policies 21 and 22 are inapplicable to License Renewal. If and to the extent deemed applicable, IPEC License Renewal is fully consistent with Policies 21 and 22. IPEC's presence has not and will not impede continued development of water-related recreational opportunities, including boating access to the Hudson River from a variety of marinas in the vicinity of IPEC, and numerous waterfront parks and trails.</p>

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HISTORIC AND SCENIC RESOURCES	
<p><u>23: Man-Made Historic, Archaeological and Cultural Resources</u></p> <p>Protect, enhance, and restore structures, districts, areas, or sites that are of significance in the history, architecture, archaeology, or culture of the state, its communities, or the nation.</p>	<p>License Renewal will not result in any land disturbance. Therefore, Policy 23 is inapplicable to License Renewal. The closest properties listed on the National or New York Registers of Historic Places are more than a mile from the perimeter of the IPEC site. Any future on-site land disturbance at IPEC would adhere to procedures that assure the protection, enhancement, and restoration of the State's historic and culturally significant resources. License Renewal is therefore fully consistent with Policy 23 if and to the extent Policy 23 is deemed applicable.</p>
<p><u>24 and 25 – Scenic, Natural and Manmade Resources</u></p> <p>24: Prevent impairment of scenic resources of statewide significance.</p> <p>25: Protect, restore, or enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the overall scenic quality of the coastal area.</p>	<p>Policies 24 and 25 are not applicable to existing facilities. IPEC License Renewal includes no change of the aesthetic environment that would impair or lead to the degradation of scenic resources. If and to the extent Policies 24 and 25 are deemed applicable, IPEC License Renewal is fully consistent with Policies 24 and 25.</p>
AGRICULTURAL LANDS	
<p><u>26: Agricultural Lands</u></p> <p>Conserve and protect agricultural lands in the state's coastal area.</p>	<p>Policy 26 does not apply to IPEC License Renewal. IPEC is and will remain an industrial site. The New York State Department of State has decided to exclude highly developed areas of the state, such as Westchester County, from its effort to map important farmlands in the coastal area of New York State.</p>
ENERGY AND ICE MANAGEMENT	
<p><u>27: Siting and Construction of Major Energy Facilities</u></p> <p>Encourage energy conservation and the use of alternative sources such as solar and wind power in order to assist in meeting the energy needs of the State.</p>	<p>Policy 27 does not apply to IPEC License Renewal since IPEC License Renewal does not involve the siting or construction of a major new energy facility; IPEC is already sited and constructed. IPEC supplies energy in an area of high demand and at a location on the transmission grid that relies on IPEC to supply the high voltage necessary to maintain grid stability. The production of electricity at IPEC does not result in emissions of criteria air pollutants, GHG, or acid rain precursors. IPEC requires a shorefront location to withdraw the necessary water for cooling purposes and to</p>

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	receive barge shipments of large equipment necessary for the production and transmission of electricity. If and to the extent Policy 27 is deemed applicable, IPEC License Renewal is fully consistent with this policy because continued operation of IPEC can serve as a reliable energy bridge to alternative energy sources.
<p style="text-align: center;"><u>28: Ice Management</u></p> <p>Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding.</p>	Policy 28 is inapplicable to License Renewal. IPEC has not experienced any issues associated with blockage of the intakes due to ice. The use of ice curtain walls will not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding. If and to the extent Policy 28 is deemed applicable, IPEC License Renewal is fully consistent with Policy 28.
<p style="text-align: center;"><u>29: Development of New, Indigenous Energy Resources</u></p> <p>Encourage the development of energy resources on the outer continental shelf, in Lake Erie and in other water bodies, and ensure the environmental safety of such activities.</p>	IPEC already exists next to the Hudson River. Policy 29 applies to newly-proposed energy facilities within coastal waters and is not applicable to IPEC License Renewal.
WATER AND AIR RESOURCES	
<p style="text-align: center;"><u>30: Industrial Discharge of Pollutants</u></p> <p>Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to state and national water quality standards.</p>	No change of existing operations is proposed as part of IPEC License Renewal. IPEC's discharges are subject to the limits set by its SPDES permit; those limits are established to ensure conformance with water quality standards ("WQS"). If and to the extent Policy 30 is deemed applicable, IPEC License Renewal is fully consistent with Policy 30.
<p style="text-align: center;"><u>31: Triennial Reviews of WQS State</u></p> <p>coastal area policies and management objectives of approved local waterfront revitalization programs will be considered while reviewing coastal water classifications and while modifying water quality standards; however those waters already overburdened with contaminants will be recognized as being a development constraint.</p>	Policy 31 applies to NYSDEC's triennial review of WQS and, therefore, is not applicable to IPEC License Renewal. Policy 31 relates to NYSDEC's obligations to comply with the federal Clean Water Act ("CWA") and to consider Local Waterfront Revitalization Programs and the New York State Coastal Management Program in doing so.
<p style="text-align: center;"><u>32: Innovative Sanitary Waste Systems</u></p> <p>Encourage the use of alternative or innovative sanitary waste systems in small communities</p>	Policy 32 is directed toward municipalities and/or sewer districts. Entergy is not responsible for regulating the treatment and

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where the costs of conventional facilities are unreasonably high, given the size of the existing tax base of these communities.	disposal of sanitary wastes within Buchanan. Therefore, Policy 32 does not apply to IPEC License Renewal.
<p><u>33 and 37 – Best Management Practices (“BMP”) for Stormwater, Combined Sewer Overflows, and Non-Point Source Discharges</u></p> <p>33: Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.</p> <p>37: Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics, and eroded soils into coastal waters.</p>	No change of existing operations or BMPs is proposed as part of IPEC License Renewal. IPEC operates subject to applicable regulatory requirements pertaining to stormwater runoff and non-point discharge of nutrients, organics, and eroded soils into coastal waters. If and to the extent Policies 33 and 37 are deemed applicable, IPEC License Renewal is fully consistent with Policy 33 and Policy 37.
<p><u>34: Vessel Wastes</u></p> <p>Discharge of waste materials into coastal waters from vessels subject to state jurisdictions will be limited so as to protect significant fish and wildlife habitats, recreational areas and water supply areas.</p>	No change in operations is proposed as part of IPEC License Renewal. Entergy does not operate vessels at IPEC that discharge waste materials into coastal waters. Therefore, Policy 34 is not applicable to IPEC License Renewal.
<p><u>35: Dredge and Fill Activities</u></p> <p>Dredging and filling coastal waters and disposal of dredged material will be undertaken in a manner that meets existing state permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands and wetlands.</p>	No dredging or filling is proposed as part of License Renewal. If needed, any additional dredging and filling during License Renewal would be undertaken pursuant to federal and State permits that impose the requisite conditions to ensure consistency with Policy 35 and its objectives. Therefore, if and to the extent deemed applicable, IPEC License Renewal is fully consistent with Policy 35.
<p><u>36: Spill Response and Hazardous Material Management</u></p> <p>Activities related to the shipment and storage of petroleum and other hazardous materials will be conducted in a manner that will prevent or at least minimize spills into coastal waters; all practicable efforts will be undertaken to expedite the cleanup of such discharges; and restitution for damages will be required when these spills occur.</p>	No change of existing activities at IPEC is proposed as part of License Renewal. The transportation and storage of petroleum products and hazardous materials on-site at IPEC are subject to comprehensive federal and State regulations. These laws and regulations were in the event a spill occurs, to mitigate its effects in a timely and appropriate manner. If and to the extent Policy 36 is deemed applicable, IPEC License Renewal is fully consistent with Policy 36.
<p><u>38: Protection of Surface Water and Groundwater Supplies</u></p> <p>The quality and quantity of surface water and groundwater supplies will be conserved and protected particularly where such waters</p>	No change of IPEC’s operations is proposed as part of License Renewal. The Hudson River and groundwater in the vicinity of IPEC are not used as a source of drinking water. IPEC’s discharges to surface water are subject to

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constitute the primary or sole source of water supply.	applicable State and federal requirements which require compliance with WQS. Therefore, if and to the extent Policy 38 is deemed applicable, IPEC License Renewal is fully consistent with Policy 38.
<p><u>39: Solid Wastes and Hazardous Wastes</u></p> <p>The transport, storage, treatment, and disposal of solid wastes, particularly hazardous wastes, within coastal areas will be conducted in such a manner so as to protect groundwater and surface water supplies, significant fish and wildlife habitats, recreation areas, important agricultural land, and scenic resources.</p>	No change in operations is proposed as part of IPEC License Renewal. Entergy's solid waste management practices associated with the generation, transportation and storage of solid wastes, including hazardous and mixed wastes, are being and will continue to be conducted pursuant to applicable federal and State regulatory requirements, thereby ensuring the protection of the State's resources, including ground and surface waters, and fish and wildlife habitat. Therefore, if and to the extent Policy 39 is deemed applicable, IPEC License Renewal is fully consistent with Policy 39.
<p><u>40: Steam Electric Generating Effluents in Conformance with WQS</u></p> <p>Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.</p>	No change of IPEC's operations is proposed as part of License Renewal. Effluent discharges from IPEC are governed by a SPDES permit issued by NYSDEC which requires that discharges satisfy applicable water quality standards. If and to the extent Policy 40 is deemed applicable to License Renewal, IPEC License Renewal is fully consistent with Policy 40.
<p><u>41: Achieving National Ambient Air Quality Standards ("NAAQS") and State Ambient Air Quality Standards ("SAAQS")</u></p> <p>Land use or development in the coastal area will not cause national or state air quality standards to be violated.</p>	IPEC's virtually emission-free energy production plays an important role in attaining NAAQS and SAAQS and thereby protects the public health and environment. Without IPEC, other forms of electric generation would increase, which would result in increased emissions. Therefore, IPEC License Renewal substantially advances the goals of Policy 41. If and to the extent that Policy 41 is deemed applicable, IPEC License Renewal is fully consistent with Policy 41.
<p><u>42: Reclassifying Prevention of Significant Deterioration ("PSD") Designations</u></p> <p>Coastal management policies will be considered if the state reclassifies land areas pursuant to the prevention of significant deterioration regulations of the federal Clean Air Act.</p>	Policy 42 is directed at NYSDEC rulemakings regarding air attainment classifications. IPEC is not a "major source" and IPEC License Renewal will not entail a "major modification at a major source" and does not trigger PSD requirements. Therefore, Policy 42 is inapplicable to License Renewal.

APPENDIX A (Cont.)

<p style="text-align: center;"><u>43: Acid Rain</u></p> <p>Land use or development in the coastal areas must not cause the generation of significant amounts of acid rain precursors: nitrates and sulfates.</p>	<p>IPEC plays a key role in meeting the power generation and energy needs of the State without contributing to the production of acid rain precursors. Without IPEC, it would be more difficult for New York to fulfill its commitment under Policy 43 to limit the causes of acid rain. If and to the extent that Policy 43 is deemed applicable, IPEC License Renewal is fully consistent with Policy 43.</p>
WETLANDS	
<p style="text-align: center;"><u>44: Tidal and Freshwater Wetlands</u></p> <p>Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.</p>	<p>Policy 44 is inapplicable to License Renewal. No filling or alteration of wetlands is proposed as part of IPEC License Renewal. Operation of IPEC does not adversely affect NYSDEC-mapped tidal and freshwater wetlands or submerged aquatic vegetation beds within the Hudson River. No change to existing operations is proposed as part of IPEC License Renewal. Therefore, if and to the extent Policy 44 is deemed applicable, IPEC License Renewal is fully consistent with Policy 44.</p>

EXHIBIT E

[Month] [Day], 2017

Fred Dacimo
Vice President, Operations License Renewal
Entergy Nuclear Northeast, Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

Re: F-2017-XXXX

Coastal Zone Management Act Consistency
Determination

Indian Point Nuclear Generating Unit Nos. 2
& 3

NRC License Nos. DPR-26 and
DPR-64

NRC Docket Nos. 50-247 and 50-286

Concurrence with Consistency Certification

Dear Mr. Dacimo:

The New York State Department of State (NYSDOS) has completed its evaluation of the Federal Consistency Assessment Form, certification, project information, public comments and publicly available information in connection with the application submitted by Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Indian Point 3, LLC (collectively Entergy) to the Nuclear Regulatory Commission (NRC) to renew Facility Operating Licenses DPR-26 and DPR-64 for Indian Point Nuclear Generating Unit 2 and Unit 3, respectively, for an additional 20 years. Entergy's certification states that the above referenced Project complies with, and will be conducted in a manner consistent with, the enforceable policies of the New York State Coastal Management Program (NYS CMP). Pursuant to the Coastal Zone Management Act (CZMA) and its implementing regulation at 15 C.F.R. §930.63, NYSDOS concurs with Entergy's consistency certification.

Entergy initially submitted its consistency certification and request for concurrence in a letter dated December 17, 2012. On June 20, 2013, following receipt of necessary data and information regarding aquatic impacts, NYSDOS commenced consistency review of the application for renewal of the commercial operating licenses for the nuclear facilities. Following a number of stay agreements, Entergy withdrew its consistency certification in a letter dated November 5, 2014 in order to await the NRC's issuance of a final Supplemental Environmental

Impact Statement (SEIS) for this activity. NYSDOS responded that it would commence review of the new consistency certification when it receives all necessary data and information.

In a letter dated January____, 2017, NYSDOS acknowledged receipt of your re-submitted consistency certification and supporting information regarding this activity and the commencement of the six-month coastal consistency review period under the NYCMP and 15 C.F.R. §§ 930.58 (a) and 930.60 (a)(2).

The consistency certification and supporting information indicates that, while seeking a 20 year license renewal for the facilities, Entergy has committed to conducting the activity in a manner consistent with the NYSCMP, which conduct differs from the earlier submission. In particular,

- Entergy has agreed that IP2 shall permanently cease operations no later than April 30, 2020, and IP3 shall permanently cease operations no later than April 30, 2021; provided, however, the operation of either IP2, IP3, or both units, may be extended upon the mutual agreement of NYS and Entergy, which shall take account of, and be made in accordance with, applicable law and regulatory requirements.
- Entergy will continue to operate Indian Point's existing multi-speed pumps and optimized Ristroph traveling screens and fish-handling and -return systems, as well as the thermal and flow terms and conditions agreed to between Entergy and the New York State Department of Environmental Conservation ("NYSDEC") staff, which reduce levels of entrainment and impingement of aquatic species.
- Entergy has committed to take each unit's planned refueling and maintenance outage (which typically last approximately 30 unit days) between February 23 and August 23 until Units 2 and 3, respectively, are retired.
- Entergy has committed to conduct a Hudson River Biological Monitoring Program, which currently consists of the Long River Survey, Beach Seine Survey and Fall Shoals Survey performed in the tidal Hudson River (River miles 0-152), as it may be appropriately reduced in scope and magnitude in cooperation with NYSDEC staff, until Units 2 and 3 are retired.

These conditions, which are contained in the joint State Pollutant Discharge Elimination System (SPDES) permit and the Water Quality Certification (CWA §401) issued by NYSDEC, have been submitted to the NRC as commitments in connection with this certification. This consistency certification relies on Entergy's material compliance with such conditions.

Pursuant to 15 CFR § 930.62, and based upon the project information submitted, the Department of State concurs with your consistency certification for this activity.

This concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, or other forms of authorization or approval that may be required pursuant to existing State statutes.

The U.S. Department of Commerce and the NRC are being notified of this action by copy of this letter.

Sincerely,

[Name/Title]

cc:

Jane Marshall, Division of License Renewal, Office of Nuclear Reactor Regulation, U.S.

Nuclear Regulatory Commission, Washington, D.C. 20555-0001

Sherwin Turk, Office of General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001

William B. Glew, Jr., Esq., Entergy Services, Inc., 440 Hamilton Avenue, White Plains, NY 10601

Jeffrey L. Payne, Ph.D., Director, Office for Coastal Management, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

Paul M. Scholz, Deputy Director, Operations, Office for Coastal Management, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

John King, Deputy Director, Programs, Office for Coastal Management, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

David Kaiser, Senior Policy Analyst, Office for Coastal Management, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Room 5128, Washington, DC 20230

Lois Schiffer, General Counsel, National Oceanic and Atmospheric Administration, 1401 Constitution Avenue, NW, Washington, DC 20230

EXHIBIT F

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK**

ENTERGY NUCLEAR INDIAN POINT 2, LLC,
ENTERGY NUCLEAR INDIAN POINT 3, LLC,
and ENTERGY NUCLEAR OPERATIONS,
INC.,

Plaintiffs,

-against-

CESAR A. PERALES, in his official capacity as
Secretary of the New York State Department of
State,

Defendant.

Docket No. 1:16-cv-51 (LEK/DJS)

NOTICE OF VOLUNTARY DISMISSAL

Pursuant to Federal Rule of Civil Procedure 41(a)(1)(A)(i), Plaintiffs Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc., voluntarily dismiss the Complaint in this action with prejudice.

Dated: January , 2017

Respectfully submitted,

/s/ Sanford I. Weisburst

Marcus V. Brown
ENTERGY SERVICES, INC.
639 Loyola Avenue, Suite 2600
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Telephone: (504) 576-2765

Kathleen M. Sullivan (Bar No. 519248)
Sanford I. Weisburst (Bar No. 519251)
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EXHIBIT G

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-247-LR and
)	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.)	
)	
(Indian Point Nuclear Generating Units 2 and 3))	
)	February xx, 2017

**UNOPPOSED MOTION TO WITHDRAW CONTENTIONS NEW YORK STATE 25
(REACTOR VESSEL INTERNALS), NEW YORK STATE 26/RIVERKEEPER TC-1B
(METAL FATIGUE), AND NEW YORK STATE 38/RIVERKEEPER TC-5
(COMMITMENTS)**

In accordance with 10 C.F.R. § 2.323, New York State (“NYS”) and Riverkeeper, Inc. (“Riverkeeper”; collectively “Intervenors”) hereby seek leave to withdraw, without prejudice, Contentions NYS-25, NYS-26/RK TC-1B, and NYS-38/RK TC-5. Entergy Nuclear Operations, Inc. (“Entergy”) supports this motion. The Nuclear Regulatory Commission Staff (“NRC”) and Hudson River Sloop Clearwater, Inc. (“Clearwater”) do not oppose the motion.

This motion to withdraw Contentions NYS-25, NYS-26/RK TC-1B, and NYS-38/RK TC-5 is based on an agreements entered into on January 9, 2017 by NYS, Riverkeeper, and Entergy, among other parties, regarding the planned cessation of operations of Indian Point Units 2 and 3 (“IP2” and “IP3”) no later than April 30, 2020 and April 30, 2021, respectively.¹⁸ This motion is also based on enhancements to the steam generator and reactor vessel internals (“RVI”) aging management program (“AMP”), including accelerated inspections of baffle former bolts at IP2 and IP3 in response to recent Indian Point and industry operating experience,

¹⁸ The operation of either IP2, IP3, or both units, may be extended upon the mutual agreement of NYS and Entergy, which shall take account of, and be made in accordance with, applicable law and regulatory requirements.

as well as general inspections of the steam generator divider plates and tube sheets and the expedited transfer of fuel assemblies from the spent fuel pools to dry cask storage.

Pursuant to the requirements of 10 C.F.R. § 2.323(b), NYS and Riverkeeper have made sincere efforts to contact the other parties and resolve the issues addressed in this motion.

Entergy has authorized NYS and Riverkeeper to represent that it supports the motion. NYS and Riverkeeper have also consulted with the NRC Staff and Clearwater, which have authorized Intervenor to represent that the NRC Staff and Clearwater do not oppose the motion and withdrawal of Intervenor's Track 2 contentions.

Respectfully submitted,

State of New York

Riverkeeper, Inc.

Executed in Accord with 10 C.F.R. § 2.304(d)

Executed in Accord with 10 C.F.R. 2.304(d)

Lisa M. Burianek
Assistant Attorney General
Office of the Attorney General
for the State of New York
The Capitol
Albany, New York 12224
Attorney and Authorized
Representative of the State of New York

Diane Curran
Riverkeeper Inc.
20 Secor Road
Ossining, NY 10562
Attorney and Authorized
Representative of Riverkeeper, Inc.

Dated: [Date], 2017

Dated: [Date], 2017

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-247-LR and
)	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.)	
)	
(Indian Point Nuclear Generating Units 2 and 3))	
)	[Date]

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that, on this date, copies of the Unopposed Motion to Withdraw Contentions NYS-25, NYS-26/RK TC-1B, and NYS-38/RK TC-5 were served on participants in the above-captioned proceeding through the Electronic Information Exchange, the NRC's E-Filing System.

Signed (electronically) by xx

Lisa M. Burianek
Assistant Attorney General
Office of the Attorney General
of the State of New York
The Capitol
Albany, New York 12224

EXHIBIT H

VIA E-MAIL AND HAND DELIVERY

[No later than January 17, 2017]

Hon. Maria E. Villa
Hon. Daniel P. O'Connell
Administrative Law Judges
New York State Department of
Environmental Conservation
Office of Hearings and Mediation Services
625 Broadway 1st Floor
Albany, New York 12233

Re: Entergy Nuclear Indian Point Units 2 and 3: Consolidated Administrative Proceedings regarding SPDES Permit Renewal and Modification (SPDES # NY-0004472) and Water Quality Certification (DEC Nos. 3-5522-0001/00030 (IP2) and 3-5522-00195/00031 (IP3))

Your Honors:

This letter will serve to inform the Tribunal and Parties that, pursuant to the requirements of the State Uniform Procedures Act, Article 70 of the Environmental Conservation Law and its implementing regulations in 6 NYCRR Part 621 (the "Uniform Procedures"), and 6 NYCRR Part 624 (the "Permit Hearing Procedures") and in response to the applications filed on behalf of Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc. (collectively, "Entergy"), the New York State Department of Environmental Conservation (the "Department" or "NYSDEC") has determined to issue a final State Pollutant Discharge Elimination System ("SPDES") Permit and a final Water Quality Certification ("WQC") for the continued operation of the Indian Point nuclear facility (Units 2 and 3). A copy of that final SPDES Permit, with its accompanying Fact Sheet, and that final WQC are attached.

NYSDEC and Entergy have requested the immediate written concurrence to issuance of a final SPDES Permit and WQC of all actively participating parties to this Proceeding. NYSDEC and Entergy have asked that parties provide their respective concurrence within five days of receipt of that request, but NYSDEC and Entergy may extend those deadlines by an additional five days, if appropriate. Upon receiving these concurrences, Staff will report this to the Tribunal and the Commissioner or his delegate. Assuming these written concurrences are obtained, pursuant to 6 NYCRR § 624.13(d) and the Department's Organization and Delegation Memorandum 94-13, titled Effect of Stipulation on Decision-Making in Permit and Enforcement Hearings ("O&D Memo 94-12"), these consolidated proceedings should be terminated based on the accompanying Stipulation between Staff and Entergy, as concurred to by the other parties. In keeping with O&D Memo 94-13 and the forthcoming direction of the Commissioner or his delegate (the form of which is attached hereto), Department Staff respectfully requests that this Tribunal remand the above-referenced SPDES and WQC applications to Department Staff for final processing, including issuance of a Final Supplemental Impact Statement ("FSEIS") and

ultimately State Environmental Quality Review Act (“SEQR”) findings, as well as terminate and close the record for the above-referenced consolidated proceedings.

To the extent that the written concurrences of all actively participating parties are not obtained in the timeframe stated, please be advised that NYSDEC Staff nonetheless intends to issue the final SPDES permit and final WQC, with the accompanying SFEIS and ultimately SEQR findings, in accordance with the Stipulation. In that event, NYSDEC Staff hereby requests this Tribunal’s determination, again consistent with the concurrent direction of the Commissioner or his delegate, that termination of the above-referenced consolidated proceedings comports with all applicable federal and New York State law under the unique circumstances of this proceeding. NYSDEC Staff’s request is as follows:

NYSDEC has determined – with the full benefit of all comments from the parties since issuance of the 2003 draft SPDES Permit, the administrative hearing record established to date, and the accompanying Stipulation that includes Entergy’s commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include electric system reliability considerations) (“Early Retirement”) – that Early Retirement is the best technology available (“BTA”) for minimizing adverse environmental impact from the cooling water intake structure at Indian Point. The significant challenges on a site-specific basis to the proposed closed cycle cooling requirement contained in NYSDEC’s draft SPDES permit dated November 2003, as well as the significant length of time expected to design, license and construct closed-cycle cooling technology for the facility of at least 9.5 years and the significant costs of construction, warrant against its selection as BTA. The foregoing determination is consistent with Commissioner’s Policy 52, Best Technology Available for Cooling Water Intake Structures (July 10, 2011) (“CP-52”).

Further, the final Indian Point SPDES Permit provides for continued operation of Indian Point’s existing multi-speed pumps and Ristroph screens and fish-return systems, as well as the consensus thermal, monitoring and flow terms and conditions previously provided to this Tribunal by Entergy and NYSDEC Staff, and an additional commitment by Entergy to undertake its planned refueling and maintenance outages each year between February 23 and August 23 until Units 2 and 3 are retired.

NYSDEC Staff has determined that these commitments by Entergy fulfill applicable federal and state laws, regulations and policies relating to Indian Point’s continued operations through retirement. *See, e.g.*, 40 CFR § 195.28(f)(2)(iv) (“The proposed determination ... must be based on consideration of any additional information required ... at § 125.98(i) and the ... (iv) Remaining *useful plant life*”) (emphasis added); 6 NYCRR § 608.9 and Parts 700 – 704 and CP-52 (“Operational measures proposed by the facility owner may include but not be limited to: (1) reductions in cooling water capacity, (2) fish protective outages, and (3) reducing cooling water capacity use.”). In accordance with the Stipulation, NYSDEC Staff is renewing Indian Point’s Units 2 and 3 existing SPDES permit without material change, based on terms and conditions that have had the benefit of full public comment and/or adjudication. Consequently, continuation of those aspects of the SPDES permit proceeding are not warranted.

Further, and in light of NYSDEC Staff’s determination of terms and conditions for its proposed final SPDES permit, the [Commissioner or his delegate] will be directing that

NYSDEC Staff shall complete the Uniform Procedures Act (“UPA”) process (6 NYCRR Part 621) for obtaining public comment regarding the final SPDES and final WQC, and complete the SEQR process pursuant to 6 NYCRR Part 617. The FSEIS, which includes a completed Coastal Assessment Form consistent with 19 NYCRR Part 600, accompanies this correspondence.

NYSDEC has determined that issuance of the final WQC is properly premised on the reasonable assurances of compliance with New York State water quality standards that the Department possesses as a result of Indian Point’s renewed SPDES Permit. *See* 6 NYCRR § 608.9 and Parts 700 – 704. Further, NYSDEC will issue a draft New York State Endangered Species Act (“ESA”) authorization in substantially the form of the National Marine Fisheries Service January 2013 Biological Opinion and Incidental Take Statement for Indian Point (allowing, where applicable, Entergy to satisfy both permits using the same studies). That ESA authorization is subject to applicable process under the UPA, pursuant to which an interested party may elect to participate by making the requisite filing. As a result, any claims relating to ESA-related species may be addressed in any proceeding that arises out of the Department’s ESA authorization. Since the final WQC contains conditions that have had the benefit of full public comment and/or adjudication, continuation of those aspects of the WQC proceeding also are not warranted.

We appreciate your courtesies and cooperation in the termination of the above-referenced adjudicatory proceedings. If you have any questions, or need any additional information concerning the foregoing please do not hesitate to contact me.

Respectfully yours.

cc: Elise Zoli, Esq. Goodwin Procter
Service List

**STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

In the Matter of a Renewal and Modification of a State Pollutant Discharge Elimination System (“SPDES”) Permit Pursuant to Article 17 of the Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York Parts 704 and 750 *et seq.* by Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC, Permittee,

-and-

In the Matter of the Application by Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc. for a Certificate Pursuant to § 401 of the Federal Clean Water Act.

**DEC # 3-5522-0011/00004
SPDES # NY-0004472**

STIPULATION

**DEC # 3-5522-0011/00030
DEC # 3-5522-0011/00031**

WHEREAS:

With respect to the respective applications of Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Operations, Inc. (collectively, “**Entergy**”) to the New York State Department of Environmental Conservation (“**DEC**” or “**the Department**”) for a renewed State Pollutant Discharge Elimination System (“**SPDES**”) Permit with associated Fact Sheet and findings under the State Environmental Quality Review Act (“**SEQR**”), a Water Quality Certification (“**WQC**”) and an Endangered Species Act (“**ESA**”) Permit (collectively, the “**Permits**”) for the Indian Point Nuclear Power Plant, including operating Units 2 and 3 (collectively, “**Indian Point**”) located in the Village of Buchanan, New York:

1. The Department Staff and Entergy have agreed upon certain revised terms and conditions for the Permits that resolve all issues in dispute between the parties hereto, including as advanced in the pending adjudicatory proceedings arising out of the DEC Staff’s November 12, 2003 draft SPDES permit and the April 2, 2010 WQC Notice of Denial (collectively, the “**Proceeding**”);
2. These resolutions obviate or resolve all issues identified in the Proceeding, facilitating the Department and Entergy’s efforts to promptly obtain the agreement of the Riverkeeper and written concurrences to these resolutions by parties to this Proceeding; and
3. Attached to this Stipulation are the following Exhibits prepared by the Department Staff, each reflecting the mutual agreement of the Department Staff and Entergy:
 - a. Exhibit A: SPDES Permit with Fact Sheet for Indian Point;

- b. Exhibit B: Final Supplemental Environmental Impact Statement (“FSEIS”) and SEQR Findings;
- c. Exhibit C: WQC for Indian Point;
- d. Exhibit D: ALJ Order and Remand; and
- e. Exhibit E: [Commissioner or his delegate] Order and Directive.

IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO THAT:

SPDES Permit with accompanying Fact Sheet and SEQR Findings. The Department hereby agrees to issuance of, and Entergy agrees to be bound by, the final SPDES Permit, attached hereto with its accompanying Fact Sheet as Exhibit A, the terms and conditions of which resolve all issues in dispute between the Department Staff and Entergy in this Proceeding related to Entergy’s application for renewal of the SPDES Permit. The final SPDES Permit shall be renewed as necessary, on the same material terms and conditions, throughout the remaining operating life of Indian Point. The Department hereby also agrees to issuance of, and Entergy agrees to support, the SFEIS and SEQR Findings, including the completed Coastal Assessment Form, attached hereto as Exhibit B. The Department Staff shall issue the final SPDES Permit, with accompanying Fact Sheet and SEQR Findings, immediately following the ten (10) calendar days required for completion of the FSEIS (including the response to comments and SEQRA Findings) and in any event no later than May 31, 2017. The final SPDES Permit reflects Entergy’s commitment to the early retirement of Indian Point, subject to the terms and conditions, which include electric system reliability considerations, set forth in the January 9, 2017 Indian Point Agreement between Entergy and NYSDEC.

WQC. The Department agrees to the issuance of, and Entergy agrees to be bound by, the final WQC, attached hereto as Exhibit C, the terms and conditions of which resolve all issues in dispute between the Department Staff and Entergy in the Proceeding with respect to Entergy’s application for the WQC. The Department shall issue the final WQC immediately following the ten (10) calendar days required for completion of the FSEIS (including the response to comments and SEQRA Findings) and in any event no later than May 31, 2017.

ESA Permit. The Department agrees to the issuance of, and Entergy agrees to be bound by, a final ESA Permit substantially similar to the January 11, 2013 National Marine Fisheries Service (“NMFS”) Biological Opinion and Incidental Take Statement (“BiOp/ITS”), the terms and conditions of which resolve issues in dispute between the Department Staff and Entergy in the Proceeding with respect to Entergy’s application for the WQC. The Department shall issue the draft ESA Permit comparable to the BiOp/ITS within ninety (90) days of NMFS’s issuance of a final biological monitoring plan, using its best efforts to issue the final ESA Permit comparable to the BiOp/ITS expeditiously thereafter.

RELEVANT PROCEDURE.

1. On the basis of the foregoing and consistent with Organization and Delegation Memorandum 94-13, dated May 5, 1994, the Administrative Law Judges are hereby requested

to: (1) accept this Stipulation, with any written concurrences obtained within five (5) days of the date on which this Stipulation is received by the ALJs (subject to the possibility of a five (5) day extension for concurrences); (2) issue an order (the “**ALJ Order**”), as attached as Exhibit D, remanding the applications to the Department Staff for final processing and prompt issuance of the final SPDES Permit, with accompanying Fact Sheet and SFEIS, and the final WQC; and (3) upon receipt of confirmation of issuance of the final SPDES Permit, with accompanying Fact Sheet, SFEIS and SEQR Findings, and the final WQC, terminate and close the record of this Proceeding. The ALJ Order is subject to and will be issued concurrent with the directive of the [Commissioner or his delegate] in a final order and directive to Department Staff, as attached hereto as Exhibit E.

2. This Stipulation constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof. No terms, conditions, understanding or agreement to modify or vary the terms of this Stipulation shall be binding unless approved in writing by the Department and Entergy.

3. This Stipulation shall apply to, and be binding upon, the Department and Entergy, their respective successors and assigns.

4. The undersigned are duly authorized representatives of Entergy and the Department with the authority to execute this Stipulation and bind the respective parties hereto.

5. The effective date of this Stipulation shall be the last date indicated below.

[Signature Page to Follow]

New York State Department of
Environmental Conservation
625 Broadway, 14th Floor
Albany, NY 12233-1500

By: _____

Mark Sanza, Esq.
Department Staff Counsel

Entergy Nuclear Indian Point 2, LLC
Entergy Nuclear Indian Point 3, LLC
Entergy Nuclear Operations, Inc.
490 Broadway
Buchanan, New York 10511

By: _____

Elise N Zoli, Esq.
Attorney for Entergy

Riverkeeper, Inc.
20 Secor Road
Ossining, NY 10562

By: _____

[TBD]
Attorney for Riverkeeper

Dated: January_____, 2017

[Concurrences may be reflected via amendment.]

EXHIBIT I

Under the Environmental Conservation Law (ECL)

PERMITTEE AND FACILITY INFORMATION

Permit Issued To:

ENTERGY NUCLEAR INDIAN POINT 2, LLC

ENTERGY NUCLEAR INDIAN POINT 3, LLC; and

ENTERGY NUCLEAR OPERATIONS, INC. (collectively, the "Permittee," "applicant" or "WQC holder")

Facility:

INDIAN POINT 1, 2 & 3 NUCLEAR POWER PLANT

Facility Location: in BUCHANAN in WESTCHESTER COUNTY

Facility Principal Reference Point: NYTM-L: NYTM-N: Latitude: Longitude:

Authorized Activity: This 401 Water Quality Certification ("WQC" or "permit") certifies that the operation of Units 2 and 3 at the Indian Point Nuclear Power Plant under renewed federal licenses to be issued by the U.S. Nuclear Regulatory Commission ("NRC") will not contravene water quality standards. The federal licenses issued by the NRC authorize the operation of the respective units at the facility. This WQC is authorized to run concurrently with the NRC issued federal licenses, accounting for Entergy's commitment to retire Units 2 and 3 in 2020 and 2021, respectively (subject to the terms and conditions of that commitment).

PERMIT AUTHORIZATION

Water Quality Certification - Under Section 401 -Clean Water Act

Permit ID

Modification# 0

Effective Date:

Expiration Date: Retirement of Unit 2 and Unit 3, but no later than [the expiration date of the renewed NRC operating license].

NYSDEC Approval

By acceptance of this WQC, Permittee agrees that the WQC is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator:

Address:

Authorized Signature:

Chief Permit Administrator

NYSDEC HEADQUARTERS

625 BROADWAY

ALBANY, NY 12233

Date

PERMIT COMPONENTS

NATURAL RESOURCE PERMIT CONDITIONS

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS
NATURAL RESOURCE PERMIT CONDITIONS- APPLY TO THE FOLLOWING

PERMITS: WATER QUALITY CERTIFICATION

1. Conformance with Plans. All activities authorized by this WQC must be in strict conformance with the application submitted by the applicants or applicants' agent as part of the application.
2. Best Technology Available ("BTA") Determination. Pursuant to 6 NYCRR § 704.5 (Intake Structures), the WQC holders are required to minimize adverse environmental impact, specifically impingement and entrainment mortality of aquatic organisms at the facility. The SPDES permit issued with this WQC contains and any final SPDES permit issued during the term of this WQC will contain various requirements to meet this standard. The Section 704.5 cooling water intake structure conditions set forth in the SPDES permit issued with this WQC, and any subsequent SPDES permit, shall be automatically incorporated by reference into this WQC. This approval certifies that, provided the WQC holders are in compliance with the requirements and limitations incorporated into the SPDES permit issued with this WQC and any subsequent, conforming SPDES permit, including the provision reflecting Entergy's commitment to retire Units 2 and 3 in 2020 and 2021, respectively (subject to the terms and conditions of that commitment) ("Early Retirement"), they are in compliance with water quality standards.
3. Thermal Determination. Pursuant to 6 NYCRR Part 704 (Criteria Governing Thermal Discharges), the WQC holders are required to operate the Indian Point Nuclear Power Plant's thermal discharges to assure the protection and propagation of the balanced indigenous population of shellfish, fish and wildlife in and on the Hudson River. The current SPDES permit contains, and any subsequent, conforming SPDES permit issued during the term of this WQC will contain, various requirements to meet this standard. The Section 704 thermal discharge conditions set forth in the final SPDES permit shall be automatically incorporated into this WQC by reference. This approval certifies that, provided the WQC holders are in compliance with the requirements and limitations incorporated into the SPDES permit issued with this WQC and any subsequent, conforming SPDES permit, they are in compliance with water quality standards.
4. Radiological Determination. The WQC holders are required to operate the Indian Point Nuclear Power Plant consistent with NRC requirements and limitations relating to radiological releases. This approval certifies that the WQC holders are currently in compliance with water quality standards relating to the radiological releases from Indian Point to the Hudson River, based on the facts and circumstances in the record to date, but that future radiological releases to the Hudson River, if any, that materially differ from those addressed in the record may be subject to separate action by NYSDEC to the extent authorized by applicable law.
5. Coverage under 401 WQC. This WQC covers normal operation of the facility. It does not cover ongoing maintenance activities that result in discharges into waters of the United States that trigger the requirement to obtain Section 404 of the Clean Water Act individual permits by

the U.S. Army Corps of Engineers or the Department of Environmental Conservation. Any proposed work on the shoreline must be consistent with the appropriate federal and Department of Environmental Conservation permits, which may include permits pursuant to Article 15, Protection of Waters, Article 34, Coastal Erosion, or Section 401 of the federal Clean Water Act.

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

1. Water Quality Certification. The Department of Environmental Conservation (the "Department") hereby certifies that the subject license renewals for the Indian Point Nuclear Plant will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217), provided that all of the conditions listed herein are met. This WQC supersedes the Department's April 10, 2010 Notice of Denial.

2. Operating in Accordance with SPDES Permit. The WQC holder is authorized to operate its cooling water intake structure and to discharge in accordance with effluent limitations, monitoring and reporting requirements, other provisions and conditions set forth in this WQC, which expressly incorporates, among other permits, the SPDES permit issued with this WQC, including Early Retirement, and any subsequent, conforming SPDES permit for the Indian Point Nuclear Power Plant issued during the term of this WQC in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and the Clean Water Act, as amended, (33 U.S.C. § 1251 et seq.), pursuant to NYCRR Title 6, Chapter X, State Pollutant Discharge Elimination System ("SPDES") Permits Part 750-1.2(a) and 750-2.

GENERAL CONDITIONS - APPLY TO ALL AUTHORIZED PERMITS:

1. Facility Inspection by the Department. The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation to determine whether the permittees are complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3). The WQC holder shall provide a person to accompany the Department of Environmental Conservation's representative during an inspection to the facility, when requested by the Department or otherwise required or authorized by law.

A copy of this WQC, including all referenced maps, drawings and special conditions, must be available for inspection by the Department of Environmental Conservation at all times at the facility. Failure to produce a copy of the WQC upon request by a Department representative is a violation of this authorization.

2. Relationship of this Permit to Other Department Orders and Determinations. Unless expressly provided for by the Department, issuance of this WQC does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers. Consistent with applicable law, the Permittee must submit a separate written application to the Department for renewal, modification or transfer of this WQC. Such application must include any forms or supplemental information the Department requires, consistent with applicable law. Any renewal,

modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Chief Permit Administrator
NYSDEC HEADQUARTERS
625 BROADWAY
ALBANY, NY 12233

4. **Submission of Renewal Application.** The Permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Water Quality Certification.

5. **Permit Modifications, Suspensions and Revocations by the Department.** The Department reserves the right to modify, suspend or revoke this WQC, consistent with applicable law. Pursuant to applicable law, the grounds for modification, suspension or revocation may include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit during its term;
- c. exceeding the scope of the project as described in the permit application or herein;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. material noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. **Permit Transfer.** WQCs are transferrable unless specifically prohibited by statute, regulation or another permit condition. Consistent with applicable law, applications for transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification.

Excepting state or federal agencies, the Permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation, its representatives, employees and authorized agents, for all claims, suits, action and damages, to the extent attributable to the Permittee's acts or omissions in connection with the Permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by this WQC whether or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to the Department's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the Department and arising under Article 78 of the New York Civil

Practice Laws and Rules, any citizen suit or civil rights provision under federal or state laws, or otherwise under applicable law.

Item B: Permittee's Contractors to Comply with Permit. The Permittee is responsible for informing independent contractors, employees, agents and assigns of their responsibility to comply with this WQC, including all special conditions, while acting as the Permittee's agent with respect to the permitted activities, and such person shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the Permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits.

The Permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this WQC.

Item D: No Right to Trespass or Interfere with Riparian Rights.

This WQC does not convey to the Permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

EXHIBIT J

SPECIAL CONDITIONS

CONDITIONS FOR OUTFALL 001

1. Discharge through Outfall 001 shall occur only through the subsurface ports of the outfall structure.
2. Sampling location for Outfall 001 is to be located upstream of the discharge from the common discharge canal into the Hudson River.
3. At no time shall the maximum discharge temperature at Outfall 001 exceed 43.3 degrees C (110° F).
4. The maximum discharge temperature at Outfall 001 shall not exceed 34°C (93.2°F) for an average of more than ten days per year; provided that the daily average discharge temperature at Outfall 001 shall not exceed 34°C (93.2°F) on more than 15 days between April 15 and June 30 in any year.
5. When the temperature in the discharge canal exceeds 90°F or the site gross electric output equals or exceeds 600MW, the head differential across the outfall structure shall be maintained at a minimum of 1.75 feet. When required, adjustment of the ports shall be made within four hours of any change in the flow rate of the circulating water pumps. If compliance is not achieved, further adjustments of the ports shall be made to achieve compliance. Flow schedules in Special Condition 6, below, shall take priority over this condition.
6. Cooling water flow volume will be maintained through flow minimization by actively managing flow within existing equipment design parameters to utilize the minimum volume of water necessary or appropriate for condenser cooling (accounting for optimal condenser back-pressure and turbine generator output) and to comply with applicable authorizations, including NRC licenses and the thermal limits of this permit, as well as nuclear industry practice regarding pump parameters and station stability.
 - 7.a. The thermal discharge from Outfall 001 is subject to 6 NYCRR Part 704.
 - b. The thermal discharge from the Indian Point nuclear facilities shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the Hudson River. In this regard, the Department has approved and hereby imposes as a condition the permittee's request for an acreage-based thermal discharge mixing zone pursuant to 6 NYCRR Section 704.3 for the term of this permit and each renewal permit. The water temperature at the surface of the Hudson River shall not be raised more than 1.5 degrees Fahrenheit (from July through September, when surface water temperature is greater than 83 degrees Fahrenheit) above the surface temperature that existed before the addition of heat of artificial origin (Section 704.2(b)(5)(iii) of the State's Criteria Governing Thermal Discharges), except in a mixing zone of seventy-five (75) acres (total) from the point of discharge. The thermal discharge from the Indian Point nuclear facilities to the Hudson River may exceed 90 degrees Fahrenheit (6 NYCRR Section 704.2[b][5][i] of the State's Criteria Governing Thermal Discharges) within the designated mixing zone area, the total area of which shall not exceed seventy-five (75) acres (3,267,000 square feet) on a daily basis.

8. The flow of condenser cooling water discharges shall be monitored and recorded every eight hours by recording the operating mode of the circulating water pumps. Any changes in the flow rate of each circulating water pump shall be recorded, including the date and time, and reported monthly together with the Discharge Reporting Form. The permittee shall indicate whether any circulating pumps were not in operation due to pump breakdown or required pump maintenance and the period(s) (dates and times) the discharge temperature limitation was exceeded, if at all. Methods, equipment, installation, and procedures shall conform to those prescribed in the Water Measurement Manual, U.S. Department of the Interior, Bureau of Reclamation, Washington D.C.: 1967 or equivalent approved by the NYSDEC.

9.

a. The service water system may be chlorinated continuously.

b. Should the condenser cooling water system be chlorinated, the maximum frequency of chlorination for the condensers of each unit shall be limited to two hours per day. The total time for chlorination of the three units for which this permit is issued shall not exceed nine hours per week. Chlorination shall take place during daylight hours and shall not occur at more than one unit at a time.

10. Continuous monitoring of Total Residual Chlorine (TRC) during condenser chlorination is required. If the continuous monitor fails, is inaccurate, or is unreliable, TRC shall be monitored during condenser chlorination by analyzing grab samples taken at least once every 30 minutes during each chlorination period.

11. Grab samples shall be taken at least once daily during low level service water chlorination and at least once every 30 minutes during high level service water chlorination. During service water chlorination, Outfall 001 TRC concentrations may be determined by either direct measurement at Outfall 001 or by multiplying a measured TRC concentration in the service water system by the ratio of chlorinated service water flow to the total site flow.

CONDITIONS FOR SUB-OUTFALLS

12. The calculated quantity of lithium hydroxide in the discharge shall be determined by using the analytical results obtained from sampling that is to be performed on internal waste streams OIC and OID.

13. Phosphate limit applies to only those internal streams at Indian Point 2 and 3 which comprise outfall OIG.

14. Because Outfall 01J cannot be monitored, the following shall apply:

a. All oil spills shall be handled under the Spill Prevention Control and Countermeasure (SPCC) plan.

b. Flow into the floor drains shall not contain more than 15 mg/l of oil and grease nor any visible sheen.

c. Treated wastewater from the desilting operation within the intake structure and forebays shall be monitored once per 12 hour shift on the sand filter effluent. Grab samples shall be analyzed for total suspended solids and oil and grease. An estimate of discharge flow rate and a visual observation for the presence of any visible sheen shall be made on the sand filter effluent. The limitations for this discharge event are: 15 mg/l (oil & grease), 50 mg/l (total suspended solids) and no visible sheen.

15. The calculated quantity of boron in the discharge shall be determined by using the analytical results obtained from sampling that is to be performed on internal waste streams 01B, OIC, OID and OIL.

16. One flow proportioned composite sample of total suspended solids (TSS) shall be obtained from one grab sample taken from each of the internal waste streams 01B, 01C, 01D, 01I and OIL.

17. One grab sample of oil and grease shall be obtained from each of the internal waste streams 01C, 01D, and OIL and the samples shall be analyzed separately. The results shall be reported by computing the flow-weighted average.

18. One composite sample of boron shall be obtained from one grab sample taken from each of the internal waste streams 01B, 01C, 01D, 01L.

WATER QUALITY REPORTING REQUIREMENTS:

19. The permittee shall submit on an annual basis to the NYSDEC at its offices in Tarrytown and Albany (see addresses below) a month-by-month report of daily operating data in EXCEL© format, by the 28th of January of the following year that includes the following:

a. Daily minimum, maximum and average station electrical output shall be determined and logged.

b. Daily minimum, maximum and average water use shall be directly or indirectly measured or calculated and logged.

c. Temperature of the intake and discharge, including as calculated to establish conformity with the condition 7(b) mixing zone, shall be measured and recorded continuously. Daily minimum, maximum and average intake and discharge temperatures shall be logged.

d. One copy of each annual report must be sent to the NYSDEC; Division of Water, Bureau of Watershed Compliance Programs; 625 Broadway; Albany, New York 12233-3506; and a second copy must be sent to NYSDEC; Regional Water Engineer, Region 3; 200 White Plains Road; Tarrytown, New York 10591.

20. Beginning upon the effective date of this permit, the permittee shall submit to the NYSDEC Offices in Albany and Tarrytown (see addresses in condition 19.d, above), a copy of their Semi-Annual Effluent and Waste Disposal Reports submitted to the Nuclear Regulatory Commission (NRC).

OTHER WATER QUALITY REQUIREMENTS

21. Notwithstanding any other requirements in this permit, the permittee shall also comply with all applicable Water Quality Regulations promulgated by the Interstate Environmental Commission (IEC), including Sections 1.0(i) and 2.05(f) as they relate to oil and grease.

22. It is recognized that, despite the exercise of appropriate care and maintenance measures, and corrective measures by the permittee, influent quality changes, equipment malfunction, acts of God, or other circumstances beyond the control of the permittee may, at times, result in effluent concentrations exceeding the permit limitations. The permittee may come forward to demonstrate to the NYSDEC that such circumstances exist in any case where effluent concentrations exceed those set forth in this permit. The NYSDEC, however, is not obligated to wait for, or solicit, such demonstrations prior to the initiation of any enforcement proceedings, nor must it accept as valid on its face the statement made in any such demonstration.

23. All chemicals listed and/or referenced in the permit application are approved for use. If use of new biocides, corrosion control chemicals or water treatment chemicals is intended, application must be made prior to use. No use will be approved that would cause exceedance of state water quality standards.

24. There shall be no net addition of PCBs by this facility's discharges to the Hudson River.

BIOLOGICAL REQUIREMENTS:

25. Within 3 months of the Effective Date of the Permit (EDP+ 3), the permittee must submit to the Department an approvable plan for continuation of a Hudson River Biological Monitoring Program (HRBMP) consisting of the Long River Survey, Beach Seine Survey and Fall Shoals Survey performed at current (2015) levels in the tidal Hudson River (River miles 0-152). This plan will also contain a commitment and plan by the permittee to work with the Department to determine a reduced monitoring effort that would provide the data necessary to continue collecting the long-term record of or data to identify status and trends reasonably attributable to Indian Point's continued operations in the Hudson River fish community sampled. Upon receipt of Department approval, the permittee must conduct the HRBMP in accordance with the approved plan until Units 2 and 3 are retired pursuant to Entergy's commitment to do so as set forth in Condition 28. The approved HRBMP plan will become an enforceable interim condition of this SPDES permit. Upon the completion of the reduced monitoring effort study, the Department will require the implementation of the agreed upon recommendations contained in the final report. Within 6 months of the Effective Date of the Permit (EDP+6), the permittee must submit to the Department all of the data that has been collected to date but has yet to be provided to the Department for the "Hudson River Striped Bass and Atlantic Tomcod Surveys" in an agreed upon electronic format.

26. Unless otherwise excused by the New York State Public Service Commission or the New York State Independent System Operator, the permittee must schedule and take its

annual planned refueling and maintenance outage at one IPEC unit, which in recent years have averaged approximately 30 unit days per year, between February 23 and August 23 each year during the remaining operating life of the facility.

Reporting: The permittee must give the NYSDEC's Steam Electric Unit Leader an annual report that provides: (a) a list of unit-day outages for each calendar year and (b) the running average of unit-day outages.

27. The Ristroph modified traveling screens number 21 through 26 and 31 through 36 must continue to be operated on continuous wash when the corresponding cooling water circulation pump is running. The low pressure wash nozzles installed at each of these screens must be operated at 4 to 15 PSI so that the fish and invertebrates are removed from the traveling screens, washed into the existing fish return sluiceway, and returned to the Hudson River. The operation of the screens and fish return system must be inspected daily and the screen wash pressures recorded in the wash operator's log. The traveling screens and the fish return and handling system must minimize the mortality of fish to the maximum extent practicable.

28. In reliance upon Entergy's commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include electric system reliability considerations, as set forth in the January 9, 2017 Indian Point Agreement between and among Entergy and NYSDEC), the outage and reporting requirements reflected in Condition 26, the traveling screens and fish return and handling system reflected in Condition 27, and the flow conditions reflected in Condition 6 (which employ multi-speed pumps), constitute the continuing measures for best technology until termination of operations at Units 2 and 3. Based on its consideration of these and other unique and specific factors, and the record established in the combined SPDES permit and WQC proceedings, and Entergy's commitment to retire Indian Point Units 2 and 3, as set forth above in this Condition, in its best professional judgment NYSDEC has determined that the measures as set forth in this SPDES permit represent the best technology available for the cooling water intakes for Indian Point Units 2 and 3.

EXHIBIT K

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Attachment B

SPDES PERMIT BIOLOGICAL FACT SHEET and summary of proposed permit
changes: Aquatic Resources and Best Technology Available (BTA) Determination

1. Biological Effects

Each year Indian Point Units 2 and 3 (collectively “Indian Point”) cause or contribute to the mortality of aquatic species by entrainment of early life stages of aquatic organisms through the plant and the impingement of juvenile fish on intake screens. Entrainment occurs when fish larvae and eggs are carried into and through the plant with cooling water in a manner that can cause mortality from physical contact with structures and thermal stresses. Impingement occurs when juvenile fish are caught against racks and screens at the cooling water intakes in a manner that can cause these organisms to be trapped by the force of the water and suffocate or otherwise be injured. Historic losses at Indian Point are distributed primarily among 7 species, including bay anchovy, striped bass, white perch, blueback herring, Atlantic tomcod, alewife, and American shad.

2. Alternatives Evaluated

The following technologies were evaluated to determine whether they would effectively minimize adverse environmental impact from this facility:

- > Relocation of intake structure
- > Technologies currently in use at Indian Point:
 - Fish Handling and Return Systems
 - Ristroph Modified Traveling Screens
 - Variable- or Multi-Speed Pumps
- > Aquatic Microfiltration Barriers
- > Flow Reductions
- > Closed-Cycle Cooling
- > Generation Outages
- > Cylindrical wedgewire screens

3. Discussion of Best Technology Available

According to Section 316(b) of the federal Clean Water Act , 6 NYCRR Part 704.5 and Commissioner’s Policy 52 (“CP-52”), the location (A), design (B), construction (C), and capacity (D) of cooling water intake structures must reflect the “best technology available” (BTA) for minimizing adverse environmental impact (impingement and entrainment). In addition, the costs of these technologies should not be “wholly disproportionate” to the environmental benefits derived. The application of BTA is site-specific and on a best professional judgment basis.

A. Location

The existing intake structure is located on the shoreline of the Hudson River adjacent to the power plant. Relocation of the intake structure to another shoreline location or an offshore

location would not decrease the mortality of aquatic organisms because fish eggs and larvae in this area of the Hudson River are equally abundant in all alternate locations.

B. Design

Technologies currently in use at Indian Point

The current design of the intake structure includes Ristroph modified traveling screens, a fish handling and return system, two-speed pumps serving Unit 2, and variable-speed pumps serving Unit 3.

Traveling Screens: The Ristroph modified traveling screens are designed to reduce the mortality of fishes associated with traditional traveling screens. The screens at Indian Point also include a low pressure spray system that washes impinged fish and other larger aquatic organisms off the screens separately from debris that is removed using a high pressure spray.

Fish Handling Systems: The fish handling and return systems convey the fish and other organisms washed off the screens back into the Hudson River.

Multiple-Speed Pumps: The two-speed and variable-speed pumps allow Entergy to more precisely adjust the volume of water drawn into the plant compared to single-speed pumps. This more precise adjustment allows for a reduction in the volume of cooling water drawn into the plant, thereby reducing the numbers of aquatic organisms entrained and impinged.

According to Entergy, this current design, along with seasonal flow reductions and generation outages (see below), attains an estimated 77% reduction in impingement mortality and 35% reduction in entrainment mortality over full flow conditions (ASA Analysis & Communication 2003).

Aquatic Microfiltration Barriers (Gunderboom® Marine Life Exclusion System™ or similar technology)

Aquatic microfiltration barriers are designed to prevent entrainment of organisms by excluding them from the water near the intake structure. These barriers are made of fabric with a limited porosity. A large surface area of this fabric is required to pass large volumes of water. The limited porosity combined with the large design flow of cooling water at this facility (up to 2.5 billion gallons of water daily) would require an aquatic microfiltration barrier many thousands of feet in length. An aquatic microfiltration barrier of this size would be orders of magnitude larger than any previous deployment in New York. The physical dimensions combined with logistical constraints of anchoring would make seasonal deployment difficult, at best. In addition, use of an aquatic microfiltration barrier would require an offshore location for the intake structure to avoid hydraulic impacts from the intake on barrier performance (ASA Analysis & Communication 2003). Any offshore location at Indian Point would likely create a hazard to navigation. Based on all the above factors, installing an aquatic microfiltration barrier at Indian Point would not be feasible.

Cylindrical Wedgewire Screens

Cylindrical wedgewire screens work by preventing some early life stage aquatic organisms from being carried into the intake structure. Entergy proposed to install 144 2.0 mm screens in the vicinity of the existing intake structures to effectively eliminate impingement mortality and reduce entrainment mortality. A cylindrical wedgewire screen installation of this size would be larger than any previous deployment in New York. Design and installation of the screens is expected to take an estimated five to six years and to cost approximately \$300 million.

C. Construction

With the exception of cylindrical wedgewire screens, there will be no impacts on aquatic organisms from construction activities for any feasible alternative because these alternatives do not require physical work in the river. Construction of cylindrical wedgewire screens would require construction and installation of 144 2.0 mm cylindrical wedgewire screens on the bed of the Hudson River in front of Indian Point. In addition, erosion and sediment control plans are required for upland construction activities under the Environmental Protection Agency's Phase II stormwater regulations. The requirements contained in these regulations should prevent incidental impacts to aquatic resources from stormwater runoff.

D. Capacity

Flow Reductions

Minimizing cooling water intake flow volume beyond Entergy's current commitment to efficient flows by further varying or reducing intake pump speeds is not a feasible alternative for substantially reducing fish mortality at Indian Point. In order to operate safely, the Plants must run their cooling water pumps at 60% capacity or greater. It is possible to reduce flow by 40%, and that can be and is done when River water temperatures are low, primarily during winter months, providing an opportunity for reducing fish mortality.

Generation Outages

Generation outages are another way to reduce cooling water flow that could result in substantial decreases in the mortality of aquatic organisms. The 2003 draft SPDES permit called for seasonal outages between February 23 and August 23 based on evidence that peak entrainment occurs during those months. Accordingly, unit outage days for refueling and maintenance lasting, on average, approximately 30 unit days between February 23 and August 23, with provision for electric-system reliability considerations, would result in reductions in fish mortality.

Closed-Cycle Cooling

Closed-cycle cooling recirculates cooling water in a closed system that substantially reduces the need for taking cooling water from the River. Entergy's analysis (Enercon Services 2003) showed that the construction of hybrid cooling towers is generally feasible (Enercon Services 2003), but faces substantial site-specific challenges (Enercon Services 2010; Tetra Tech

2013) and would require prior review and approval from the Nuclear Regulatory Commission (NRC), which issues Entergy's operating licenses.

The benefit of hybrid cooling towers for minimizing environmental impacts is substantial, if such towers can be operated throughout the entrainment season, with a 97% reduction in fish mortality in that instance (ASA Analysis and Communication 2003). However, on a site-specific basis, entrainment season operation faces substantial challenges in the record and cannot be assumed. The length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least 9.5 years and would involve significant costs (Enercon 2010; Tetra Tech 2013).

NYSDEC has determined that Entergy's commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include electric system reliability considerations, as set forth in the January 9, 2017 Indian Point Agreement between NYSDEC and Entergy) ("Early Retirement"), will effectively eliminate impingement and entrainment on a timeframe that is years sooner than the timeframe for construction and operation of closed-cycle cooling. Indeed, early retirement reductions are nearly 100%. In consideration of these factors, NYSDEC has determined that closed-cycle cooling is not the best technology available given the length of time that would be required to retrofit from the existing once-through cooling system to a closed-cycle cooling system at both Units, and given the limited life span (if any) of Indian Point Units 2 and 3 after implementation of the closed-cycle cooling system.

4. Determination of Best Technology Available

After evaluating all of the known and available alternatives, and in reliance on Entergy's commitment to Early Retirement, as well as Entergy's continued operation of the variable speed pumps, flow limitations, Ristroph modified traveling screens and fish handling and return systems, paired with the Condition 26 outages commitment referenced above, the Department has determined, in its best professional judgment, that in this case closed-cycle cooling does not represent the best technology available for minimizing adverse environmental impacts from the cooling water intake structure at Indian Point.

Although the Department preliminarily determined in 2003 that closed-cycle cooling represented BTA for this site, in reliance upon Entergy's commitment to Early Retirement, NYSDEC has determined that Early Retirement represents the *best* available technology from the suite of technologies and operational options considered. Closed-cycle cooling is not the best technology available given the substantial, site-specific challenges and length of time that would be required to retrofit from the existing once-through cooling system to a closed-cycle cooling system at both Units, and given the limited life span (if any) of Indian Point Units 2 and 3 after implementation of the closed-cycle cooling system. The length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least 9.5 years and would involve significant costs. Early Retirement as reflected in Condition 28, in connection with the outage requirements reflected in Condition 26, the flow limitations in Condition 6, and the traveling screens and fish return and handling system reflected in Condition 27, constitute the continuing measures for best technology until retirement of Units 2 and 3. Based on its consideration of these and other factors, and the record established in the combined

SPDES permit and WQC proceedings, in its best professional judgment NYSDEC has determined that the measures as set forth in the final SPDES permit represent the best technology available for the cooling water intakes for Indian Point Units 2 and 3 through termination of operations.

5. Legal Requirements

The requirements for the cooling water intake structure in this SPDES permit are consistent with the policies and requirements embodied in the New York State Environmental Conservation Law, in particular - Sec.1-0101.1.; 1-0101.2.; 1-0101.3.b., c; 1-0303.19.; 3-0301.1.b., c, i., s. and t.; 11-0303.; 11-0535.2; 17-0105.17.; 17-0303.2., 4.g.; 17-0701.2, and the rules thereunder, specifically 6 NYCRR Section 704.5. Additionally, the requirements are consistent with the Clean Water Act, in particular Section 316(b), and with CP-52.

6. References

ASA Analysis and Communications, Inc. 2003. Response to New York State Department of Environmental Conservation Request for Information on Indian Point Unit 2 and Unit 3, Items 3 & 4. June 2003.

Central Hudson Gas & Electric Corp., Consolidated Edison Company of New York, Inc., New York Power Authority, Southern Energy New York. 1999. Draft Environmental Impact Statement for State Pollutant Discharge Elimination System Permits for Bowline 1 & 2, Indian Point 2 & 3, and Roseton 1 & 2. December 1999.

Enercon Services, Inc. 2003. Economic and Environmental Impacts Associated with Conversion of Indian Point Units 2 and 3 to a Closed-Loop Condenser Cooling Water Configuration. June 2003.

Enercon Services, Inc. 2010A. Evaluation of Alternative Intake Technologies at Indian Point Units 2 and 3. February 2010.

Enercon Services, Inc. 2010B. Engineering Feasibility and Costs of Conversion of Indian Point Units 2 and 3 to a Closed-Loop Condenser Cooling Water System. February 2010.

Enercon Services, Inc. 2012. Technical Design Report for Indian Point Units 2 and 3: Implementation of Cylindrical Wedge Wire Screens. April 2012.

New York State Department of Environmental Conservation. 2003. Final Environmental Impact Statement Concerning the Applications to Renew New York State Pollutant Discharge Elimination System (SPDES) Permits for the Roseton 1 & 2, Bowline 1 & 2, and Indian Point 2 & 3 Steam Electric Generating Stations, Orange, Rockland, and Westchester Counties. June 25, 2003.

Nieder, William. 2015. Indian Point Energy Center Unit 2 and Unit 3 BTA Analysis Step Four of the BTA Procedure: The Wholly Disproportionate Test. Amended Wholly Disproportionate Test Report With Outages. June 2015.

Tetra Tech. 2013. Indian Point Closed-Cycle Cooling System Retrofit Evaluation. June 2013.

Tetra Tech. 2014. IPEC ClearSky Retrofit: Planning Schedule. March 27, 2014.

7. Summary of Proposed Permit

Condition 3 of the previous permit allowed the permittee to exceed the maximum cooling water flows stipulated in the Hudson River Settlement Agreement (HRSA) in order to meet thermal limits required in conditions 1 and 2. As the HRSA has expired, this condition is no longer relevant.

Condition 4 of the previous permit provided for increased cooling water flows above stipulated HRSA limits in order to meet thermal limits contained in the permit. As the HRSA has expired this condition is no longer relevant.

Condition 5 of the previous permit referenced the HRSA and is no longer relevant.

Condition 6 of the previous permit stated that no thermal effluent limitations (other than existing conditions 1 through 4) would be imposed at the Indian Point facility. This condition relates to the agreement that the terms of the HRSA would satisfy the New York State Criteria Governing Thermal Discharges. As the HRSA has expired, this condition is no longer relevant.

New Thermal Condition 7B: The permittee meets thermal water quality standards, and will utilize a mixing zone described in acres of no more than seventy-five (75) acres, within which the thermal discharge of the units may exceed 90 degrees Fahrenheit, in order that the thermal discharge from the Indian Point nuclear facilities shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the Hudson River. Outside the mixing zone, the temperature at the surface of the Hudson River shall not be raised more than 1.5 degrees Fahrenheit (from July through September, when surface water temperature is greater than 83 degrees Fahrenheit). The conversion of Indian Point's historic mixing zone system to acreage reflects statewide efforts by NYSDEC to use a simplified system for mixing zones.

Alternative conditions:

Condition 25 requires the continuation of a Hudson River Biological Monitoring program.

Condition 26 requires Indian Point to schedule its annual refueling and maintenance outage at one IPEC unit, which in recent years have averaged 30 unit days per year, between February 23 and August 23 each year over the remaining operating life of the facility.

Condition 27 requires that the modified Ristroph modified traveling screens number 21 through 26 and 31 through 36 must be operated on continuous wash when the corresponding cooling water circulation pump is on at the correct pressure in order to maximize the survival of fish impinged on the traveling screens.

Condition 28 requires that, in reliance upon Entergy's commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include electric system reliability considerations), NYSDEC has determined that closed-cycle cooling is not the best technology available given the length of time that would be required to retrofit from the existing once-through cooling system to a closed-cycle cooling system at both Units, and given the limited life span (if any) of Indian Point Units 2 and 3 after implementation of the closed-cycle cooling system. The length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least 9.5 years and would involve significant costs. Early Retirement as reflected in Condition 28, in connection with the outage requirements reflected in Condition 26, the flow limitations in Condition 6, and the traveling screens and fish return and handling system reflected in Condition 27, constitute the continuing measures for best technology until retirement of Units 2 and 3. Based on its consideration of these unique and specific factors, as well as other factors, and the record established in the combined SPDES permit and WQC proceedings, in its best professional judgment NYSDEC has determined that the measures as set forth in the final SPDES permit represent the best technology available for the cooling water intakes for Indian Point Units 2 and 3 through termination of operations.

SIGNATURE LINE AND DATE.

Attachment B2

SPDES SFEIS AND SEQR FINDINGS

SUPPLEMENTAL FINAL ENVIRONMENTAL

IMPACT STATEMENT

By the

**NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

As Lead Agency

**Concerning the
Application to Renew**

**NEW YORK
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
(SPDES) PERMITS**

For the

**INDIAN POINT 2 & 3
STEAM ELECTRIC GENERATING STATIONS, ORANGE,
ROCKLAND AND WESTCHESTER COUNTIES
HUDSON RIVER POWER PLANTS FEIS**

Accepted:

Prepared by NYS Department of Environmental Conservation

EXECUTIVE SUMMARY

The action before the New York State Department of Environmental Conservation (NYSDEC) is the decision whether to renew the State Pollutant Discharge Elimination System (SPDES) permit and issue a Water Quality Certificate (“WQC”) for the Indian Point Energy Center Units 2 and 3 (“Indian Point”), a pair of nuclear powered steam electric generating stations located in Buchanan, Westchester County. Indian Point is owned and operated, respectively, by Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Operations, Inc., the owners and operator of Indian Point (collectively, “Entergy”). A SPDES permit and a WQC would allow Indian Point to discharge waste heat, a pollutant, to the waters of the Hudson River. A SPDES permit would also allow Indian Point to continue to withdraw water from the Hudson River for use as cooling water.

The SPDES permit was the subject of a Final Environmental Impact Statement dated June 25, 2003 (the “FEIS”).¹⁹ The FEIS contemplated Supplemental EISs for each of the three Hudson River generation facilities addressed in the FEIS. Following issuance of the FEIS and a related draft SPDES permit for Indian Point, there ensued a more than 13-year long administrative adjudicatory proceeding with respect to the SPDES permit and NYSDEC Staff’s April 2010 notice of denial of Entergy’s WQC application, to which NYSDEC Staff, Entergy, and numerous intervenors and amici were parties. NYSDEC Staff and Entergy have now agreed to settle the dispute between them and to issuance of a final SPDES permit and a final WQC. This Supplemental Final Environmental Impact Statement (the “SFEIS”) provides, for purposes of public review and comment under the State Environmental Quality Review Act (“SEQR”), a summary of facts pertinent to the final SPDES permit and final WQC, including facts concerning the significant adverse environmental impacts of potential cooling water intake structure (“CWIS”) technologies for Indian Point considered during the adjudicatory proceeding.

This FSEIS does not repeat all of the information previously set forth in the FEIS or the December 1999 Draft Environmental Impact Statement (“DEIS”) that preceded the FEIS; rather, those earlier documents are appended hereto as Exhibits A and B. The purpose of this FSEIS is to supplement the earlier analysis to reflect material new information developed since the FEIS was published, and thereby to explain NYSDEC’s decision to issue the final SPDES permit, with the particular modifications found therein, and the final WQC.

The structure of this FSEIS is as follows. First, the FSEIS provides an overview of the history of the adjudicatory proceeding, particularly the history of this SPDES permit where the FEIS left off in 2003, and the WQC application. Second, it provides an overview of the Federal and New York law applicable to the proposed action. Third, it describes the evidence concerning the various CWIS alternatives considered during the adjudicatory proceeding, as NYSDEC sought to exercise its best professional judgment in selecting a “best technology available” (“BTA”) for Indian Point’s CWIS for purposes of Section 316(b) of the Federal Clean Water Act; 6 NYCRR § 704.5; and Commissioner Policy 52 (“CP-52”). This section of the SFEIS focuses on evidence concerning the feasibility of the BTA alternatives that were considered, as well as their significant adverse environmental impacts for purposes of SEQR. Lastly, the SFEIS explains Entergy’s commitment to retire Indian Point Units 2 and 3 in 2020

¹⁹ The WQC Application was submitted to NYSDEC in April 2009 and thus post-dates the 2003 FEIS.

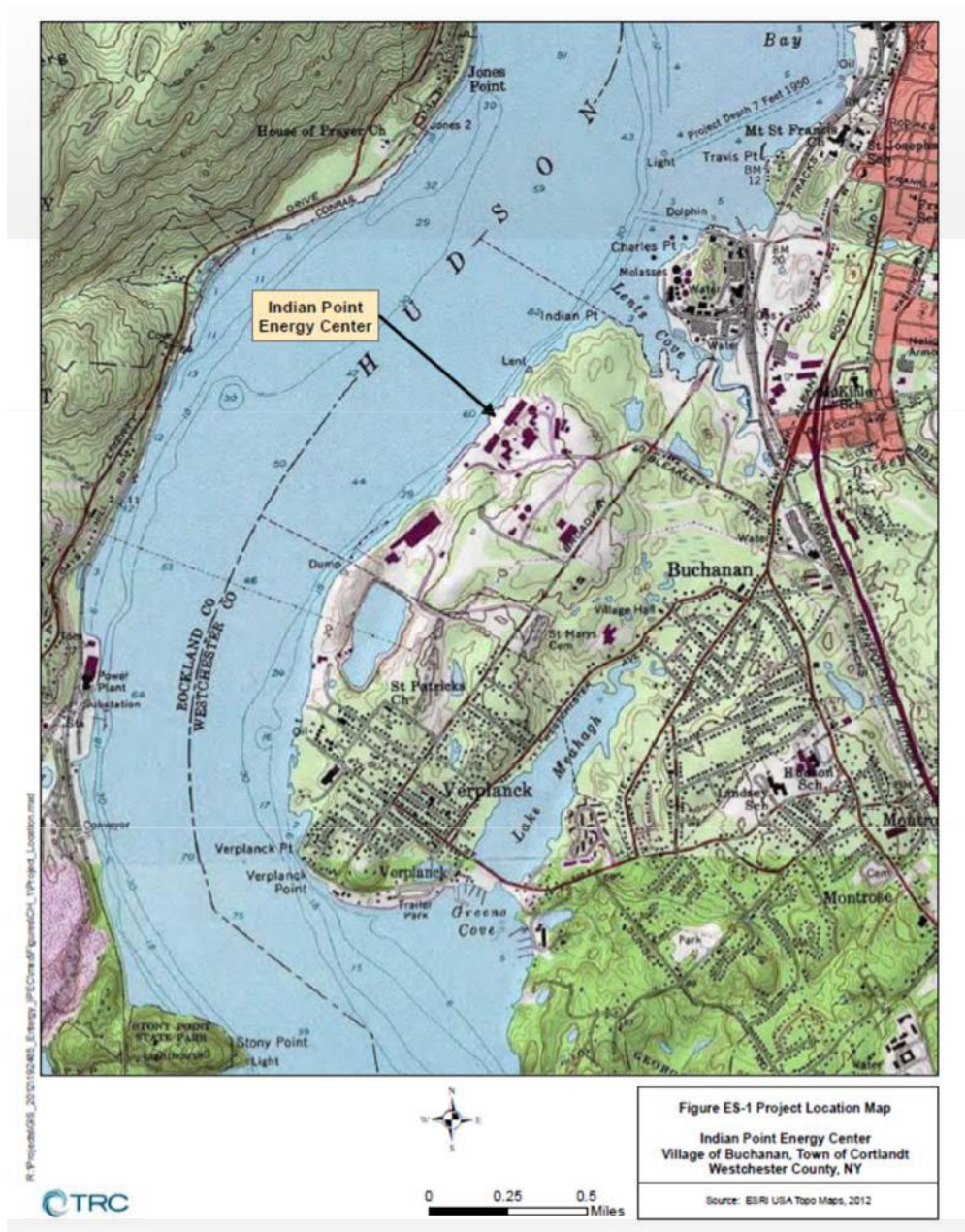
and 2021, respectively (subject to the terms and conditions of Entergy's commitment to do so, which are set forth herein) ("Early Retirement"), and the implications of that commitment on NYSDEC's BTA determination.

Ultimately, as explained herein and reflected in the final SPDES permit, NYSDEC has concluded that the following SPDES permit conditions represent BTA for Indian Point in light of Entergy's commitment to Early Retirement: an Early Retirement commitment (Condition 28), together with the scheduling of Indian Point's annual planned refueling and maintenance outages between February 23 and August 23 each year (Condition 26), flow limitations (Condition 6) and continued operation of Indian Point's existing suite of cooling water intake structure technologies (Condition 27), and continued intensive Hudson River monitoring (Condition 25). In reaching this determination, NYSDEC also took account of the adverse environmental impacts, and the significant social, economic, and other impacts, of alternative BTA proposals.

NYSDEC hereby solicits public comment on this SFEIS. Comments are due 45 days from the date of publication of the SFEIS (which shall be no later than February 7, 2017, or February 14, 2017 after a concurrence extension), which works out to March 24, 2017 (March 31, 2017, if the concurrence period is extended).

PROPOSED ACTION

The action before NYSDEC is the decision whether to renew Indian Point's SPDES permit and issue Indian Point a WQC, which would allow Indian Point to discharge pollutants, including waste heat, to the waters of the Hudson River. The SPDES permit would also allow Indian Point to continue to withdraw water from the Hudson River for use as cooling water. Based on the record of a 13-year long adjudicatory proceeding, and Entergy's commitment to Early Retirement, NYSDEC has decided to issue the final SPDES permit and the final WQC in the form accompanying this SFEIS as Exhibits C and D, respectively. A map showing Indian Point's location on the Hudson River appears below as Figure 1.



- **Figure 1: Location of Indian Point**

PROJECT HISTORY

A history of this project prior to the FEIS is set forth in the FEIS. This SFEIS repeats certain of that earlier history for context, but focuses on the post-FEIS history. The public is directed to the FEIS for a more fulsome description of the pre-FEIS history.

The predecessors in interest of Entergy applied in 1992 for renewal of the SPDES permit for Indian Point. Indian Point is located on the east side of the Hudson River in the Village of Buchanan, Westchester County, New York. The New York SPDES permit program is a federally-approved, state-administered program governing the discharge of pollutants (including, as relevant to the electric sector, thermal discharges) into state surface and ground waters. Conditions contained in a SPDES permit govern the discharges of permit holders. New York also uses its SPDES program to enforce the cooling water intake structure requirements of Section 316(b) of the Clean Water Act, 33 U.S.C. § 1365, and 6 NYCRR § 704.5. NYSDEC also issues WQCs pursuant to authority granted to states by §401 of the Federal Clean Water Act (33 U.S.C. §1341), employing the regulations promulgated at 6 NYCRR § 608.9 and Parts 700 – 704.

In 1999, for purposes of SEQR, Entergy's predecessor (together with the then-owners of certain other Hudson River power plants, known as the "Hudson River Facilities") produced a joint DEIS in support of their respective applications for SPDES permit renewals for the Hudson River Facilities.

On June 23, 2003, NYSDEC Staff accepted and noticed for public comment the FEIS for the Hudson River Facilities, including Indian Point.

On November 12, 2003, Department Staff proposed various modifications to the existing SPDES permit for Indian Point, including new conditions to implement closed cycle cooling as BTA to minimize adverse environmental impacts from the Indian Point's CWIS. Department Staff's BTA determination involved certain conditions related to Nuclear Regulatory Commission ("NRC") issuance of license renewal determinations for the Stations, feasibility and SEQR assessments for the proposed BTA technology, as well as Entergy's right to propose an alternative BTA. Various entities, including Entergy, challenged Department Staff's proposed SPDES permit, and various third parties moved to intervene as parties or amici.

A public legislative hearing and issues conference were held with respect to the draft SPDES permit. An issues ruling, admitting intervening parties and setting certain issues for adjudication, was issued on February 3, 2006. In an interim decision, dated August 13, 2008 (the "Interim Decision"), the Deputy Commissioner ruled on interlocutory appeals and advanced various issues to adjudication in the SPDES permit proceeding. *See Matter of Entergy Indian Point 2, LLC*, Interim Decision of the Assistant Commissioner, 2008 N.Y. Env. LEXIS 52 (August 13, 2008). Among other things, the Interim Decision directed the parties to proceed to hearings on the issue of the site-specific BTA for the Stations.

On April 30, 2007, Entergy entities filed with NRC the federal license 20-year renewal applications for Indian Point. On April 6, 2009, Department Staff received a joint application for a federal Clean Water Act ("CWA") Section 401 WQC on behalf of Entergy. Entergy submitted

the joint application for a Section 401 WQC to NYSDEC as part of Entergy's license renewal application. Section 401 conditions federal licensing of an activity which causes a "discharge" into navigable waters on certification from the State in which the discharge might originate that the proposed activity would not violate federal or State water-protection laws. 33 U.S.C. Section 1341(a). In order to grant a WQC, NYSDEC must determine whether Indian Point's continued operation meets State water quality standards pursuant to CWA Section 401 and Section 608.9 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR"), as well as 6 NYCRR Parts 700 – 704.

By letter dated April 2, 2010, NYSDEC Staff issued a Notice of Denial of the WQC application, precipitating a hearing on the grounds identified by various entities, including Entergy. A public comment hearing was held on July 20, 2010, and the issues conference took place the following day, on July 21, 2010. In an issues ruling dated December 13, 2010 ("WQC Issues Ruling"), the administrative law judges ("ALJs") advanced additional issues to adjudication relating to the joint Section 401 WQC application. See *Matter of Entergy Nuclear Indian Point, LLC*, Ruling on Proposed Issues for Adjudication and Party Status, 2010 N.Y. Env. LEXIS 86 (December 13, 2010). The ALJs determined that the hearing on the SPDES and WQC issues would proceed on a consolidated basis and simultaneously, in order to develop a joint record.

The background and procedural history with respect to the renewal and modification of the SPDES permit are set forth in greater detail in the February 3, 2006 ruling on proposed issues for adjudication and petitions for party status, 2006 N.Y. Env. LEXIS 3; the Interim Decision, 2008 N.Y. Env. LEXIS 52 (August 13, 2008); the November 28, 2012 ruling of the Regional Director, 2012 N.Y. Env. LEXIS 80; and the February 3, 2015 issues ruling on permanent forced outages, 2015 N.Y. Env. LEXIS 4. The background and procedural history with respect to the Section 401 WQC proceeding are set forth in greater detail in the WQC Issues Ruling, 2010 N.Y. Env. LEXIS 86 (December 13, 2010).

Parties to the adjudicatory proceeding have included the mandatory parties Department Staff and Entergy; intervenors (Riverkeeper, Inc.; Scenic Hudson; Natural Resources Defense Council, Inc.; County of Westchester; Town of Cortland; African American Environmentalist Association; Richard Brodsky); and amici (City of New York; Independent Power Producers of New York; and Central Hudson Gas & Electric ("CHG&E")). By letter dated June 26, 2014, CHG&E withdrew from the proceeding.

Hearings have been held to consider Entergy's proposed BTA (cylindrical wedge wire screens), NYSDEC Staff's proposed BTA (closed cycle cooling and summertime outages of 42 and 62 days at each unit) and Riverkeeper's proposed BTA (summertime outages of 118 days at each unit), as well as radiological issues and the issue of best usages, as advanced to adjudication in the issues ruling on the Section 401 WQC application. SEQR issues relating to each of the BTA alternatives were also the subject of hearings. The hearings on these topics began on October 17, 2011, and fifty-eight hearing days have since taken place. The transcript in the proceeding is 16,423 pages long, and 1,500 exhibits have been proposed to be admitted into evidence.

On January XX, 2017, NYSDEC Staff informed the ALJs that it and Entergy had agreed to a settlement, pursuant to which NYSDEC would issue the final SPDES permit and grant Entergy a WQC for federal license renewal, in exchange for Entergy's commitment to, *inter alia*, Early Retirement.

REGULATORY SETTING

Federal Clean Water Act

NPDES Permitting

The basic federal law governing water pollution control in the United States is the federal Water Pollution Control Act (FWPCA), more commonly referred to as the Clean Water Act (CWA).²⁰ Although the FWPCA itself dates to 1948, the CWA as we now know it was largely shaped by comprehensive amendments in 1972 which completely overhauled the existing system.²¹ The 1972 CWA is properly viewed as the starting point for modern water pollution control law.

While the CWA has been amended several times since 1972, the heart of the Act which has remained intact is its system of regulating both direct and indirect discharges of pollutants into U.S. waters: the National Pollutant Discharge Elimination System (NPDES).²² The fundamental premise of the CWA, expressed in § 301, is not to regulate an otherwise lawful activity, but to make unlawful the discharge of *any* pollutant from a point source by any person.²³ Thus, the discharge of pollutants is not a right and may only be allowed as specifically provided in the CWA. The bulk of the CWA may, therefore, be viewed as a detailed and highly regulated exception to the “no discharge” rule of § 301.

Pollution control standards under the Act are of two general types:

- (1) effluent standards which limit the quality and quantity of pollutants discharged from the source, also called “technology-based” standards; and
- (2) ambient standards which limit the concentration of pollutants in a defined water segment, also called “water quality-based” standards.

By establishing limits tailored to the nature of a discharge rather than its location, a uniform nationwide playing field was established that removed incentives for dischargers to relocate to other states to avoid treatment requirements.

The focus of an ambient standard is on the capacity of the receiving water to absorb or dilute a given pollutant. Thus, water quality-based standards vary according to the use of the receiving water - for example, recreational, industrial, or public drinking water - and on local conditions, such as the size and flow of the receiving water, its turbidity, and other factors unique to the segment.

²⁰ 33 U.S.C. §§ 1251 - 1376.

²¹ FWPCA Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816.

²² See CWA § 402; 33 U.S.C. § 1342.

²³ “Pollutant” is defined as including solid, industrial, agricultural and other wastes, sewage, sludge, heat, rock, sand, and biological and radioactive materials; CWA § 502(6), 33 U.S.C. § 1362(6). “Point source” is defined as any “discernable, confined, and discrete conveyance”; CWA § 502(14), 33 U.S.C. § 1362(14).

Technology-based effluent standards, on the other hand, do not focus on the qualities of the receiving water, but on the treatment a pollutant receives prior to its discharge. Technology-based standards define and mandate a level of effluent quality that is achievable using pollution control technology so that a pollutant's capacity to degrade the water segment into which it is discharged is lessened. Of the two, technology-based effluent standards dominate the CWA's regulatory system.

Both of these standards are implemented and enforced through the NPDES permit program, administered by the USEPA. Under § 402 of the CWA, a discharger must obtain an NPDES permit from EPA or from a state that has an EPA-approved program.²⁴ The technology-based and water quality-based standards are written into the permits and are tailored to meet the particular permittee's situation, such as the pollutant-producing operation, the type and amount of pollutants to be discharged and the condition of the receiving water.

The CWA mandated development of water quality standards for water bodies and effluent limitations based on those standards, and it set forth the mechanism for incorporating water quality standards into NPDES permits. States were required to adopt classifications of water bodies according to their best uses. They were also required to develop standards for various pollutants that would establish maximum levels of pollutants in water bodies that would be allowable so that the water bodies could retain their best uses.²⁵ These standards are then, in turn, incorporated into the NPDES permit as effluent limitations, along with any other relevant technology-based effluent limitations.

NPDES permits may also contain other conditions a permittee must meet, such as requirements for monitoring and reporting effluent discharges.²⁶ Discharge without a permit or in violation of its conditions may subject the discharger to an enforcement action by the federal or state government, which in turn may result in civil and criminal penalties.²⁷ A noncomplying discharger may also be subject to enforcement by private individuals or groups under the Act's citizen suit provision.²⁸ In sum, the NPDES permit program is the focal point of the CWA's regulatory system, and compliance with an NPDES permit's conditions is deemed to be compliance with almost all of the Act's regulatory provisions.²⁹

CWA § 316(b) and Cooling Water Intake Structures

²⁴ CWA § 402(a) and (b), 33 U.S.C. § 1342(a) and (b).

²⁵ CWA § 303, 33 U.S.C. § 1313.

²⁶ 40 C.F.R. §§ 122.41 to 122.50 (permit conditions).

²⁷ CWA § 309, 33 U.S.C. § 1319.

²⁸ CWA § 505, 33 U.S.C. § 1365.

²⁹ CWA § 402(k), 33 U.S.C. § 1342(k).

§ 316(b) of the CWA provides that any “point source” discharge standard established pursuant to §§ 301 or 306 of the CWA must require that the location, design, construction, and capacity of CWIS reflect the “best technology available” (BTA) for minimizing adverse environmental impacts.

EPA has defined a “cooling water intake structure” as the total physical structure and any associated constructed waterways used to withdraw water from waters of the U.S., extending from the point at which water is withdrawn from waters of the U.S. up to and including the intake pumps. EPA has defined “cooling water” as water used for contact or non-contact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content.³⁰ The intended use of cooling water is to absorb waste heat from production processes or auxiliary operations.

CWA § 316(b) addresses the adverse environmental impact caused by the intake of cooling water, not discharges into water. Despite this special focus, the requirements of § 316(b) are closely linked to several of the core elements of the NPDES permit program established under § 402 of the CWA to control discharges of pollutants into navigable waters. For example, § 316(b) applies to point sources (facilities) that withdraw water from the waters of the U.S. for cooling through a CWIS and are subject to an NPDES permit. Conditions implementing § 316(b) are included in NPDES permits on a case-by-case, site-specific basis.

The majority of impacts to aquatic organisms and habitat associated with intake structures is closely linked to water withdrawals from the various waters in which the intakes are located. The withdrawal of substantial quantities of cooling water affects large numbers of aquatic organisms annually, including phytoplankton (tiny, free-floating photosynthetic organisms suspended in the water column), zooplankton (small aquatic animals, including fish eggs and larvae, that consume phytoplankton and other zooplankton), fish, crustaceans, shellfish, and many other forms of aquatic life.³¹ Aquatic organisms drawn into CWIS are either impinged on components of the CWIS or entrained in the cooling water system itself.

Impingement takes place when organisms are trapped against intake screens by the force of the water passing through the cooling water intake structure. This can result in starvation and exhaustion (organisms are trapped against an intake screen or other barrier at the entrance to the cooling water intake structure), asphyxiation (organisms are pressed against an intake screen or other barrier at the entrance to the cooling water intake structure by velocity forces which prevent proper gill movement, or organisms are

³⁰ National Pollutant Discharge Elimination System—Final Regulations To Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48300, 48431 (Aug. 15, 2014).

³¹ National Pollutant Discharge Elimination System—Proposed Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities; Proposed Rule, 67 Fed. Reg. 17122, 1736 (Apr. 9, 2002) (“316(b) Proposed Rule”).

removed from the water for prolonged periods of time), descaling (fish lose scales when removed from an intake screen by a wash system), and other physical harms.³²

Entrainment usually occurs when relatively small benthic, planktonic, and nektonic organisms, including early life stages of fish and shellfish, are drawn through the cooling water intake structure into the cooling system. In the normal water body ecosystem, many of these small organisms serve as prey for larger organisms that are found higher on the food chain. As entrained organisms pass through a plant's cooling system they are subject to mechanical, thermal, or toxic stress. Sources of such stress include physical impacts in the pumps and condenser tubing, pressure changes caused by diversion of the cooling water into the plant or by the hydraulic effects of the condensers, sheer stress, thermal shock, and chemical toxemia induced by antifouling agents such as chlorine.³³

In addition to impingement and entrainment losses associated with the operation of CWIS, another concern is the cumulative degradation of the aquatic environment as a result of:

- (1) multiple intake structures operating in the same watershed or in the same or nearby reaches; and
- (2) intakes located within or adjacent to an impaired waterbody.

Historically, impacts related to CWIS have been evaluated pursuant to CWA § 316(b) on a facility-by-facility basis. While the potential cumulative effects of multiple intakes located within a specific waterbody or along a coastal segment are largely unknown, there is concern about the effects of multiple intakes on fishery stocks.³⁴

New York State Laws

SPDES Permitting Program

Pursuant to authority granted by Congress in CWA § 402, USEPA has authority to allow states to carry out specified permitting functions, which would otherwise be performed by USEPA, for discharges into both interstate and intrastate waters. New York State received USEPA approval of such authority in the form of a Memorandum of Agreement between the state and USEPA in October 1975. The Memorandum established the basis for the SPDES permit program in New York State in lieu of a federally administered program.

Originally enacted in 1973, Article 17, Title 8 of the Environmental Conservation Law (ECL) authorizes NYSDEC to administer the SPDES permitting program that

³² *Id.*

³³ *Id.*

³⁴ *Id.*

governs the discharge of pollutants into the waters of the state at a given facility.³⁵ The purpose of ECL Article 17, Title 8 is:

To create a state pollutant discharge elimination system (SPDES) to insure that the State of New York shall possess adequate authority to issue permits regulating the discharge of pollutants from new or existing outlets or point sources into the waters of the state, upon condition that such discharges will conform to and meet all applicable requirements of the [FWPCA] . . . and rules, regulations, guidelines, criteria, standards and limitations adopted pursuant thereto relating to effluent limitations, water quality related effluent limitations ...³⁶

The discharge must also meet all applicable requirements of the ECL and the implementing regulations at 6 NYCRR Parts 700, et seq. and 750, et seq. The permitting objective is to prospectively control the discharge of point-source pollutants, including heat, by establishing chemical-specific limits and other requirements intended to assure that water quality standards in the receiving water body are achieved. Additional environmental objectives are to assure that aquatic communities are not unduly harmed by discharges, and to protect the public health and best usage of the water body.

Generally, thermal discharges to the waters of the State must meet water quality standards to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water.³⁷ In addition, thermal criteria apply to all waters of the State receiving thermal discharges.³⁸ These criteria may be modified upon application of a permittee to NYSDEC if NYSDEC finds them to be unnecessarily restrictive and that modification would still assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made.³⁹ The discharge of heat as a pollutant, a “thermal discharge,” is addressed in NYSDEC’s regulations at 6 NYCRR Part 704.

In making a modification to thermal criteria, NYSDEC typically imposes a “mixing zone” which limits the physical extent within which heated water can exceed specific applicable criteria.⁴⁰ Outside of the mixing zone, thermal criteria must be met to assure compliance with water quality standards. Temperature limitations are established and imposed on a case-by-case basis for each facility subject to Part 704 jurisdiction. NYS has adopted the federal CWA § 316(b) BTA requirement for CWIS as part of NYSDEC’s thermal discharge criteria at 6 NYCRR § 704.5.

³⁵ “Pollutant” is defined as any “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, and agricultural waste discharged into water.” ECL § 17-0105(17).

³⁶ ECL § 17-0801.

³⁷ 6 NYCRR § 704.1(a).

³⁸ NYCRR § 704.2.

³⁹ 6 NYCRR § 704.4.

⁴⁰ 6 NYCRR § 704.3.

New York has adopted the appropriate regulations for the operation of the SPDES permit program, including standards for the development and issuance of permits as well as for the types of effluent limitations to be imposed in these permits.⁴¹ In addition to the federally developed categorical effluent limitations, NYSDEC has developed numerous water quality standards for various pollutants in its regulations and less formal “guidance” values for many more pollutants.⁴² NYSDEC has also categorized through regulation all significant water bodies in the State, based upon the best use of each water body.⁴³

NYSDEC’s overall SPDES permitting activity is intended to implement the declared public policy of the State of New York that water resources not be wasted or degraded and “shall be adequate to meet the present and future needs for domestic, municipal, agricultural, commercial, industrial, power, recreational and other public, beneficial purposes.”⁴⁴

Goals for water discharge permitting are also articulated in the ECL:

Reasonable standards of purity and quality of the waters of the state be maintained consistent with public health, safety and welfare and the public enjoyment thereof, the propagation and protection of fish and wildlife, including birds, mammals and other terrestrial and aquatic life, and the industrial development of the state, and to that end, to require the use of all known available and reasonable methods to prevent and control pollution, wastage and unreasonable disturbance and defilement of the waters of the state.⁴⁵

Any source proposing to discharge pollutants requiring a SPDES permit must file an application with NYSDEC at least 180 days before the proposed commencement of the discharge⁴⁶ or, if renewing an existing SPDES permit, at least 180 days before the expiration of the existing permit.⁴⁷ Submission of a timely renewal application continues the terms of the existing SPDES permit until the renewal permit is issued by NYSDEC.⁴⁸ If NYSDEC determines to issue the permit, it prepares a draft permit, including proposed effluent limitations and other conditions.⁴⁹

⁴¹ See 6 NYCRR Part 750.1

⁴² 6 NYCRR Part 703; Department Technical and Operational Guidance Series (TOGS) § 1.1.1.

⁴³ See 6 NYCRR Parts 701 and 800 to 941.

⁴⁴ ECL § 15-0105(3).

⁴⁵ ECL § 15-0105(7); *see also*, ECL § 17-0101.

⁴⁶ 6 NYCRR § 750-1.6

⁴⁷ 6 NYCRR § 750-1.16

⁴⁸ SAPA § 401(2).

⁴⁹ 6 NYCRR § 750-1.9

NYSDEC is required to provide public notice of every draft SPDES permit which gives a description of the discharge and the terms of the draft permit, and sets forth a public comment period of no less than 30 days during which interested parties may submit written comments concerning the application.⁵⁰ During the public comment period any person, including the applicant, may submit written comments or request a hearing. NYSDEC is required to hold a legislative hearing to receive unsworn public comments if it determines that there is significant public interest and sufficient reason for such a hearing.⁵¹ If no hearing is held, only the written comment period occurs, and NYSDEC will issue a final SPDES permit following the close of the public comment period.

In certain instances, an adjudicatory hearing may also be held, where evidence and sworn testimony is presented before an Administrative Law Judge (“ALJ”). Any interested party, as well as the applicant, may request an adjudicatory hearing with respect to any aspect of a draft SPDES permit so long as the request is made during the public comment period.⁵² At such a hearing, parties have an opportunity to contest issues the ALJ has determined to be adjudicable.⁵³

NYSDEC is required to determine the existence of the following facts in a SPDES permit renewal context:

1. That the permittee is in compliance with or has substantially complied with all the terms, conditions, requirements, and schedules of compliance of the expiring SPDES permit;
2. That NYSDEC has up-to-date information on the permittee’s production levels, waste treatment practices, and the nature, contents, and frequency of the permittee’s discharge, pursuant to new forms and applications or monitoring records and reports; and
3. That the discharge is consistent with currently applicable effluent and water quality standards and limitations, and other legally applicable requirements.⁵⁴

Upon a determination of the existence of these facts, NYSDEC may issue a renewal permit.

NYSDEC also has authority to modify SPDES permits for a number of reasons, including significant changes in a discharger’s operations or new information, such as the

⁵⁰ 6 NYCRR § 750-1.9

⁵¹ 6 NYCRR § 750-1.9

⁵² 6 NYCRR § 750-1.1(d)

⁵³ 6 NYCRR § 624.4(b)(5), (c)

⁵⁴ 6 NYCRR § 750-1.16

promulgation of new standards by either the State or USEPA.⁵⁵ Permits can also be modified or revoked in response to violations of permit conditions, misrepresentations by the permittee, or changes in conditions.⁵⁶

Water Quality Certification Program

NYSDEC issues WQCs pursuant to authority granted directly to states by Section 401 of the Federal Clean Water Act (33 U.S.C. § 1341), employing the regulations promulgated at 6 NYCRR § 608.9 and Parts 700 – 704. Section 401 conditions federal licensing of an activity which causes a “discharge” into navigable waters on certification from the State in which the discharge might originate that the proposed activity would not violate federal or State water-protection laws. 33 U.S.C. Section 1341(a). In order to grant a WQC, the Department must determine whether IPEC’s continued operation meets State water quality standards pursuant to CWA Section 401 and Section 608.9 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (“6 NYCRR”).

NYSDEC may provide public notice of a draft WQC and set forth a public comment period of no less than 30 days pursuant to 6 NYCRR §621.7(b)((ii), during which interested parties may submit written comments concerning the application. During the public comment period any person, including the applicant, may submit written comments or request a hearing. NYSDEC may hold a legislative hearing to receive unsworn public comments if it determines that there is significant public interest and sufficient reason for such a hearing. *See* 6 NYCRR §621.8(c)(1) and (2). If no hearing is held, only the written comment period occurs, and NYSDEC will issue a final WQC following the close of the public comment period.

In certain instances, an adjudicatory hearing may also be held, where evidence and sworn testimony is presented before an Administrative Law Judge (“ALJ”). Any interested party, as well as the applicant, may request an adjudicatory hearing with respect to any aspect of a draft SPDES permit so long as the request is made during the public comment period. At such a hearing, parties have an opportunity to contest issues the ALJ has determined to be adjudicable. *See* 6 NYCRR § 621.8(b) and (d).

Legislative Findings and Commissioner’s Powers

In enacting legislation to preserve and protect the water resources and wildlife of the State of New York, the NYS Legislature made findings of fact and vested the Commissioner of Environmental Conservation with broad powers and authority germane to the regulation of electricity generating facility operations that use and impact such resources.

The Legislature has found:

⁵⁵ 6 NYCRR § 750-1.18

⁵⁶ 6 NYCRR § 750-1.20

The State of New York owns all fish, game, wildlife, shellfish, crustacea and protected insects in the state, except those legally acquired and held in private ownership. Any person who kills, takes or possesses such fish, game, wildlife, shellfish, crustacea or protected insects thereby consents that title thereto shall remain in the state for the purpose of regulating and controlling their use and disposition.⁵⁷

The general purpose of powers affecting fish and wildlife, granted to the department by the Fish and Wildlife Law, is to vest in the department, to the extent of the powers so granted, the efficient management of the fish and wildlife resources of the state. Such resources shall be deemed to include all animal and vegetable life and the soil, water and atmospheric environment thereof, owned by the state or of which it may obtain management, to the extent they constitute the habitat of fish and wildlife as defined in § 11-0103.....⁵⁸

New York State has been generously endowed with water resources which have contributed and continued to contribute greatly to the position of preeminence attained by New York in population, agriculture, commerce, trade, industry and outdoor recreation.⁵⁹

All fish, game, wildlife, shellfish, crustacea and protected insects in the state, except those legally acquired and held in private ownership, are owned by the state and held for the use and enjoyment of the people of the state, and the state has a responsibility to preserve, protect and conserve such terrestrial and aquatic resources from destruction and damage and to promote their natural propagation.⁶⁰

It is in the best interests of this state that provision be made for the regulation and supervision of activities that deplete, defile, damage or otherwise adversely affect the waters of the state and land resources associated therewith.⁶¹

The NYSDEC Commissioner has the power to:

Promote and coordinate management of water, land, fish, wildlife and air resources to assure their protection, enhancement, provision, allocation, and balanced utilization consistent with the environmental policy of the state and take into account the cumulative impact upon all such resources in making any

⁵⁷ ECL § 11-0105.

⁵⁸ ECL § 11-0303(1); *see also*, ECL §§ 11-0303(2) and 11-0305.

⁵⁹ ECL § 15-0103(2).

⁶⁰ ECL § 15-0103(8).

⁶¹ ECL § 15-0103(13).

determination in connection with any license, order, permit, certification or other similar action or promulgating any rule, regulation, standard or criterion.⁶²

Provide for the propagation, protection, and management of fish and other aquatic life and wildlife and the preservation of endangered species.⁶³

Provide for the protection and management of marine and coastal resources and of wetlands, estuaries and shorelines.⁶⁴

New York State Coastal Management Program

The NYS Coastal Management Program was developed under authority of New York State Executive Law 910-22 and 19 NYCRR Part 600. The operative sections of the Executive Law provide 11 points of policy that have been detailed in a single set of 44 decision-making criteria in the Coastal Management Program and final environmental impact statement. NYSDEC, as a state agency, must find that all direct and funding actions, and any permitting actions that are the subject of an EIS under SEQR, are consistent with the Coastal Management Program.⁶⁵ In addition, SEQR regulations provide that, for any state agency action in a coastal area, a draft EIS must contain an identification of the applicable coastal resources/waterfront revitalization policies and a discussion of the effects of the proposed action on such policies.⁶⁶ Renewal of Indian Point's SPDES permit will not result in any new effects on coastal zone policies.

State law also requires that state agencies provide timely notice to local governments whenever an identified action will occur within an area covered by an approved local waterfront revitalization program (LWRP). The NYS Secretary of State is required to confer with state agencies and local governments when notified by a local government that a proposed state agency action may conflict with the policies and purposes of its approved LWRP, and may modify the proposed action to be consistent with the local plan.⁶⁷

The consistency provisions of the New York State Coastal Management Program enable NYSDEC to consider the full range of coastal policies prior to undertaking and approving a specific action, including completion of a coastal assessment form as in this case.

⁶² ECL § 3-0301(1)(b).

⁶³ ECL § 3-0301(1)(c).

⁶⁴ ECL § 3-0301(1)(e).

⁶⁵ 6 NYCRR 617.9(e); 19 NYCRR 600.4(a)

⁶⁶ 6 NYCRR 617.14(d)(10).

⁶⁷ Executive Law 915-a.

Hudson River Estuary Management Program

In 1987, ECL § 11-0306 was amended in order to establish a Hudson River estuarine district including “the tidal waters of the Hudson River, including the tidal waters of its tributaries and wetlands from the federal lock and dam at Troy to the Verrazano-Narrows.”⁶⁸ This section also directed NYSDEC to establish a Hudson River estuary management program “in order to protect, preserve and, where possible, restore and enhance the Hudson River estuarine district.”⁶⁹ The district was also to consider the remainder of the Hudson River, New York Bight, and the waters around Long Island, as they impact the Hudson River estuary.

A Hudson River estuary management advisory committee, consisting of representatives of commercial fishing, sportsmen, research, conservation, and recreation, as well as a Hudson River estuary coordinator, was created within NYSDEC to manage the Hudson River estuary management program and assist in the development and implementation of the program.⁷⁰

A Hudson River estuarine sanctuary was also established “for the purpose of protecting areas of special ecological significance within the Hudson River estuarine district and associated shorelands ...”.⁷¹ The sanctuary also serves as a “long-term estuarine field laboratory for research and education concerning the Hudson River ecosystem.”

NYSDEC and the advisory committee were directed to develop a continuing estuary management program “for the preservation, protection, restoration and enhancement of the Hudson River estuarine district and associated shorelands including but not limited to its natural resources, its fish and wildlife and the habitats within it.”⁷² The strategy was required to include, among other things, the following:

- a. Evaluation of the impact of the uses of water on the Hudson River estuarine district including present and future demands for water and their impact on the balance of fresh and salt water in the estuary.
- b. Identification of areas of potential ecological significance which may require rehabilitation.
- c. A status report on the levels of toxicants in and their effects on important estuarine indicator species and for species that have potential or existing recreational or commercial value.

⁶⁸ ECL §11-0306(1).

⁶⁹ ECL §11-0306(2).

⁷⁰ ECL §11-0306(4).

⁷¹ ECL §11-0306(5).

⁷² ECL §11-0306(6).

d. Identification of the anthropogenic activities and the conservation and management problems that pose an existing or potential threat to the resources and the functioning of the estuary.⁷³

In enacting ECL § 11-0306, the Legislature made the following findings and declarations:

The legislature further finds that the Hudson River estuary is of statewide and national importance as a habitat for marine, anadromous, catadromous, riverine and freshwater fish species and that it is the only major estuary on the east coast to still retain strong populations of its historical spawning stocks. Such species are of vital importance to the ecology and the economy of the state and to the recreational and commercial needs of the people of the New York state and neighboring states. A lack of sufficient and reliable research and documentation has resulted in recurring disputes on the movements, life cycles and habitats of these species.

The legislature further finds that the Hudson River estuary possesses a fishery of outstanding commercial and recreational value, and the economic potential of the Hudson River estuary's fishery is at present underdeveloped. Improper management and use of the Hudson River estuary will deprive present and future generations of the benefit and enjoyment of this valuable resource.

The legislature further finds that the protection of estuarine species throughout their life history; the protection of their spawning habitat, nursery habitat, wintering habitat and feeding and foraging habitat; and the protection, enhancement and restoration of the state's natural resources upon which these species and their habitat depend requires a specific program for the proper management of the Hudson River estuary.

It is hereby declared to be the policy of the state to preserve, protect and, where possible, restore and enhance the natural resources, the species, the habitat and the commercial and recreational values of the Hudson River estuary.

Hudson River Valley Greenway Program

Article 44 of the ECL was amended in 1991 to establish a Hudson River Valley Greenway Communities Council (Greenway Council) to assist Hudson River Valley communities in the 10 counties of Westchester, Putnam, Dutchess, Columbia, Rennselaer, Albany, Green, Ulster, Orange, and Rockland in their plans for development. Article 44 was enacted as companion legislation to the Hudson River estuary management program discussed earlier.⁷⁴ The statute authorizes the Greenway Council to provide and support cooperative planning to establish a voluntary regional compact among Hudson Valley localities to protect the valley's natural and cultural resources and

⁷³ See ECL § 11-0306(6)(e)-(h).

⁷⁴ ECL § 11-0306

promote regional planning. The ECL also provides that, upon compact effectiveness, state agency actions for which an EIS is being prepared under SEQR, including Department actions, must be assessed in light of the Greenway compact and applicable rules and regulations, and that the Greenway Council should review and comment in writing on the DEIS.⁷⁵ As of early 2003, six counties and several localities were actively engaged in Greenway Compact planning and programs.

Endangered Species Act

For purposes of the federal Endangered Species Act (“ESA”), Indian Point has obtained a biological opinion and incidental take statement from the National Marine Fisheries Service (“NMFS”), and is in the process of finalizing a biological monitoring program with NMFS. Under the authority of ECL § 11-0535 and 6 NYCRR Part 182, NYSDEC will be issuing a conforming state ESA permit to Indian Point in contemporaneously with the final SPDES permit.

Use and Conservation of Energy

The administrative and adjudicatory record, including insofar as it incorporates studies and reports of the New York Independent System Operator (“NYISO”) and New York Public Service Commission (“NYPSC”), including but not limited to iterations of the NYISO Reliability Needs Assessment and Comprehensive Reliability Plan, and documents from the NYPSC Indian Point Reliability Contingency Plan docket (such as the order establishing that docket, and the NYPSC environmental impact statement for that docket), as well as documents from NYSDEC and other governmental documents pertaining to the Regional Greenhouse Gas Initiative, document the contribution of Indian Point to New York State’s bulk electric system, particularly in the short-to-medium term. This contribution is measured in terms of electric system reliability, wholesale and capacity market pricing, and reductions in emissions of criteria air pollutants and greenhouse gases. The record also identifies that any potential impacts to reliability and capacity in the medium-to-long term are expected to be avoided or mitigated given responsive measures taken on the basis of planning on the part of the NYISO and the NYPSC, and the SPDES Permit’s and WQC’s recognition of the need for temporary continued operation of Indian Point in order to preserve system reliability and capacity if necessary mitigation is not forthcoming. For these reasons, the record demonstrates that Early Retirement will satisfy electric generating capacity needs and other electric system needs in a manner consistent with the State Energy Plan.

⁷⁵ ECL §44-0115(3).

MITIGATION AND ALTERNATIVES

Available Mitigation Technologies

At present, Indian Point's existing CWIS employs a "once-through" cooling system, *i.e.*, Hudson River water is withdrawn by the CWIS, circulated past the condenser coils to absorb waste heat from the operation of Indian Point's two operating reactor units, and discharged back to the Hudson River at a higher temperature than at the intake.

The current design of the CWIS incorporates certain features designed to reduce mortality to aquatic organisms as a result of impingement against the CWIS's intake screens or entrainment within the circulating cooling water itself. Specifically, Indian Point's CWIS employs a system of Ristroph modified traveling screens with a low pressure spray wash system that washes impinged fish and other larger aquatic organisms off the screens separately from debris that is removed using a high pressure spray; a fish handling and return system that conveys the fish and other organisms washed off the screens back into the Hudson River; and variable-speed pumps that allow Indian Point to more precisely adjust the volume of water withdrawn from the Hudson River, as compared to single-speed pumps, which allows for a reduction in the volume of cooling water withdrawn and corresponding reductions in impingement and entrainment. Despite these features, the operation of Indian Point's CWIS results in smaller aquatic organisms (eggs and larvae) being entrained within the circulating cooling water, while some larger organisms are impinged on intake screens.

Based on information in the 1999 DEIS, the 2003 FEIS, and the other information obtained and analyses conducted since those documents were prepared, including in connection with adjudicatory proceeding, NYSDEC has considered three primary potential technologies or operational measures as alternatives to once-through cooling, to mitigate the adverse environmental impact of Indian Point's CWIS for purposes of CWA § 316(b) and 6 NYCRR § 704.5. Specifically, these mitigation measures are: (1) closed-cycle cooling ("CCC"); (2) cylindrical wedgewire screens ("CWWS"); and (3) flow reductions achieved via annual fish-protection outages ("FPO"). Each of these alternatives is discussed and evaluated separately below. Alternatives discussed in the 2003 FEIS, but that were not the subject of extensive consideration during the adjudicatory proceeding because they were readily determined to be infeasible or inefficacious at Indian Point are not discussed herein; the public is directed to the FEIS, and to the fact sheet for the final SPDES permit, for a discussion of such alternatives.

Instead of these mitigation alternatives, as the next section of the SFEIS discusses, given the specific and unique facts of this action, NYSDEC has determined that the BTA for Indian Point, as reflected in the final SPDES permit, is as follows: an Early Retirement commitment (Condition 28), together with the scheduling of Indian Point's annual planned refueling and maintenance outages between February 23 and August 23 each year (Condition 26), flow limitations (Condition 6) and continued operation of Indian Point's existing suite of cooling water intake structure technologies (Condition 27), and continued intensive Hudson River monitoring (Condition 25). This determination includes finding that Early Retirement will allow Indian Point Units 2 and 3 to operate in compliance with State water quality standards, allowing NYSDEC to issue a final WQC.

Alternatives Assessment

This assessment is based on all of the information gathered and proceedings described in the Project History, above. In addition, and pursuant to 6 NYCRR § 617.15(a), this assessment is based in relevant part on the NRC's December 2010 Final "Supplement 38 Regarding Indian Point Generating Units 2 and 3" to NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants, which goes by the reference NUREG 1437, Supplement 38, Volumes 1-3, as it has been supplemented through this date (collectively, the "2010 NRC FSEIS"). The multi-volume 2010 NRC FSEIS contemplates continued operation of Indian Point through and beyond the 2020, employing the cooling water intake structure technologies and related measures required in the renewed SPDES permit. *See* 6 NYCRR § 617.15(a) ("When a draft and final EIS for an action has been duly prepared under the National Environmental Policy Act of 1969, an agency has no obligation to prepare an additional EIS under this Part, provided that the Federal EIS is sufficient to make findings under section 617.11 of this Part."). The 2010 NRC FSEIS is available online from the NRC.

Closed-Cycle Cooling

Closed-cycle cooling recirculates cooling water in a closed system that substantially reduces the need for withdrawing cooling water from the River. By reducing the amount of River water that IPEC needs to withdraw in order to operate, CCC in turn would result in reductions in the number of impinged or entrained aquatic organisms at Indian Point. The benefit of hybrid cooling towers for minimizing environmental impacts is substantial, if such towers can be operated throughout the entrainment season, with a 97% reduction in fish mortality in that instance (ASA Analysis and Communication 2003).

Analysis showed that the construction of hybrid cooling towers is generally feasible (Enercon Services 2003), but faces substantial site-specific challenges (Enercon Services 2010; Tetra Tech 2013) and would require prior review and approval from the Nuclear Regulatory Commission ("NRC"), which issues Entergy's operating licenses. More specifically, the evidence in the record suggests that there may not be sufficient space within the Indian Point site boundary in which to locate cooling towers of a sufficient size given the volume of Indian Point's circulating water flow (Enercon Services 2010; Tetra Tech 2013). Additionally, siting conflicts exist between the current configuration of the Indian Point station and the most likely proposed location for cooling towers, such that cooling tower construction would require relocating numerous existing structures including: the Algonquin natural gas pipeline owned by Spectra Energy; overhead transmission lines; the utility tunnel and monitoring house; the primary water storage tank area, boric acid storage tanks, and the Unit 3 waste storage tank; the radioactive machine shop; the Unit 3 outage support building; numerous layers of security fencing; and the independent spent fuel storage installation ("ISFSI") (Tetra Tech 2013). Cooling tower construction also would require at least four years of blasting in proximity to operating nuclear reactor units, which is uncertain to be permitted by NRC and/or local municipal authorities (Tetra Tech 2013; Enercon Services 2010). Even if these construction-related feasibility challenges could be overcome, evidence suggests that, due to increased pressure and water temperatures, operation of CCC at Indian Point would exceed the operational limits of the facility's condenser, causing operational problems at the Stations (Enercon Services 2013).

The length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least 9.5 years and would involve costs potentially in excess of \$1 billion (Enercon 2010; Tetra Tech 2013). The construction and operation of cooling towers on the Indian Point site potentially would result in adverse environmental and other SEQR impacts. Construction and operation of cooling towers has the potential to create nuclear safety for the Indian Point site, including as a result of salt deposition, fogging, and icing, which may result in electrical arcing and/or compromise perimeter security (Enercon Services 2013). The construction and/or operation cooling towers potentially may result in exceedances of local noise restrictions, adverse impacts on visual or scenic resources in the Lower Hudson Valley region (TRC 2013), and adverse impacts to the habitat of threatened or endangered species located in the vicinity of the Indian Point site, including the bald eagle and the Indiana bat (TRC 2013). The nearly year-long construction outage necessary to construct cooling towers at Indian Point, and the resulting increase in demand for electricity that likely will be filled by existing fossil-fueled generators, also is expected to cause increases in emissions of criteria air pollutants, greenhouse gas emissions, and wholesale energy and installed capacity market prices (NYSDPS 2013), as would subsequent operation of the cooling towers. The construction outage also may have adverse implications for the reliability of New York State's electric system (NYSDPS 2013).

Cylindrical Wedgewire Screens

CWWS are a passive intake technology that work by preventing some early life stage aquatic organisms from being carried into the intake structure. More specifically, CWWS have an internal cylindrical framework around which a wire is tightly wound to form the screening surface, which consists of V-shaped wedgewire bars that are welded and formed to maintain a uniform screen opening with the narrower end internal to the screen. CWWS reduce impingement and entrainment by discouraging debris accumulation on the screen surface and evenly distributing intake flow across and throughout the screen surface, resulting in a slower "through-screen" velocity.

Entergy proposed to install 144 2.0 mm screens in the vicinity of the existing CWIS to effectively eliminate impingement mortality and reduce entrainment mortality. Although CWWS would be even more effective at reducing impingement at Indian Point than would CCC, achieving impingement reductions of up to 99.3% of the regulatory baseline, CWWS would be less effective than CCC at reducing entrainment. A CWWS installation of this size also would be larger than any previous deployment in New York. Design and installation of the screens is expected to take an estimated five to six years and to cost approximately \$300 million.

In terms of adverse environmental or other impacts, CWWS would avoid many of the adverse impacts discussed above associated with CCC, including impacts to visual resources, increased noise, impacts to air quality, impacts to Indian Point's operations and nuclear safety and security, and impacts to electric-system prices and/or reliability.

CWWS potentially would give rise to other adverse impacts, however, that NYSDEC has considered as part of its analysis. These adverse impacts include the potential for the construction and/or operation of CWWS to result in a long-term loss of more than five acres of Hudson River benthic habitat, and the potential that construction and/or operation of CWWS

may negatively impact threatened or endangered species, such as Hudson River shortnose and Atlantic sturgeon.

Annual Fish Protection Outages

Annual FPOs are another means of reducing cooling water withdrawals, and therefore achieving reductions in entrainment and impingement of aquatic organisms. For example, the 2003 draft SPDES permit called for seasonal outages of 42 unit-days on an interim basis between February 23 and August 23 based on evidence that peak entrainment occurs during those months. During the adjudicatory proceeding relating to renewal of Indian Point's SPDES permit, proposals for dual-unit FPOs of 42, 62, and 118 days per year (mainly in the summer period between May 10 and August 10) also were evaluated, as well as proposals that would combine a single-unit CCC retrofit with FPOs of 42 or 62 days per year at the non-retrofitted unit.

The effectiveness of FPOs in achieving entrainment reductions may be highly variable, and depends primarily on whether the dates on which the FPOs occur coincide with annual entrainment peaks, with the result that longer FPOs tend to have greater efficacy at reducing entrainment than shorter FPOs (Nieder 2015). The time of year in which entrainment peaks occur may vary substantially from year to year, and may also differ for certain species of fish. The record evidence indicates that the entrainment reduction efficacy of dual-unit FPOs is less than the efficacy of CCC, and may be less effective than CWWS depending on when the FPOs are scheduled in comparison to entrainment peaks (Nieder 2015).

Dual-unit annual FPOs are subject to a number of feasibility challenges that may preclude their implementation at Indian Point. Nuclear facilities like Indian Point are operated on a schedule that NRC developed specifically for the purpose of reducing nuclear-safety risks, whereby each reactor unit generates electricity for 23 months followed by a 1-month refueling and maintenance outage. Annual, dual-unit FPOs are inconsistent with that NRC-approved refueling schedule, and are not employed at any comparable, currently operating nuclear facility in the United States. A transition to FPOs likely would require NRC approval through the license-amendment process. Approval of dual-unit annual FPOs is likely to take a number of years.

Annual FPOs also may result in adverse environmental, social, economic, and other impacts. The summer period corresponds to the typical period during which peak summertime demand for electricity occurs (NYSDPS 2015). Annual summertime FPOs have the potential to result in violations of applicable New York State electric system reliability criteria, or in additional costs to maintain the reliability of the electric system (NYSDPS 2015). Indian Point's absence during FPOs is likely to result in increased demand for electricity produced by existing fossil-fueled generators, which could cause increases in greenhouse gases and emissions of criteria air pollutants (NYSDPS 2015).

To the extent that annual FPOs are combined with a single-unit CCC retrofit, most of the same potential adverse impacts associated with a CCC retrofit project, as discussed above, are likely to be present as well.

THE FINAL SPDES PERMIT

Based upon all of the available information, including with respect to environmental impacts, and in light of Entergy's commitment to Early Retirement, NYSDEC has determined that CCC, CWWS, and FPOs are not BTA for IPEC; rather, the final SPDES permit reflects Entergy's commitment to Early Retirement, together with the other fish protection conditions set forth in the final SPDES permit, as BTA.

Specifically, the final SPDES permit contains the following biological conditions:

25. Within 3 months of the Effective Date of the Permit (EDP+ 3), the permittee must submit to the Department an approvable plan for continuation of a Hudson River Biological Monitoring Program (HRBMP) consisting of the Long River Survey, Beach Seine Survey and Fall Shoals Survey performed at current (2015) levels in the tidal Hudson River (River miles 0-152). This plan will also contain a commitment and plan by the permittee to work with the Department to determine a reduced monitoring effort that would provide the data necessary to continue collecting the long-term record of or data to identify status and trends reasonably attributable to Indian Point's continued operations in the Hudson River fish community sampled. Upon receipt of Department approval, the permittee must conduct the HRBMP in accordance with the approved plan until Units 2 and 3 are retired pursuant to Entergy's commitment to do so as set forth in Condition 28. The approved HRBMP plan will become an enforceable interim condition of this SPDES permit. Upon the completion of the reduced monitoring effort study, the Department will require the implementation of the agreed upon recommendations contained in the final report. Within 6 months of the Effective Date of the Permit (EDP+6), the permittee must submit to the Department all of the data that has been collected to date but has yet to be provided to the Department for the "Hudson River Striped Bass and Atlantic Tomcod Surveys" in an agreed upon electronic format.

26. Unless otherwise excused by the New York State Public Service Commission or the New York State Independent System Operator, the permittee must schedule and take its annual planned refueling and maintenance outage at one IPEC unit, which in recent years have averaged approximately 30 unit days per year, between February 23 and August 23 each year during the remaining operating life of the facility.

Reporting: The permittee must give the NYSDEC's Steam Electric Unit Leader an annual report that provides: (a) a list of unit-day outages for each calendar year and (b) the running average of unit-day outages.

27. The Ristroph modified traveling screens number 21 through 26 and 31 through 36 must continue to be operated on continuous wash when the corresponding cooling water circulation pump is running. The low pressure wash nozzles installed at each of these screens must be operated at 4 to 15 PSI so that the fish and invertebrates are removed from the traveling screens, washed into the

existing fish return sluiceway, and returned to the Hudson River. The operation of the screens and fish return system must be inspected daily and the screen wash pressures recorded in the wash operator's log. The traveling screens and the fish return and handling system must minimize the mortality of fish to the maximum extent practicable.

28. In reliance upon Entergy's commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include electric system reliability considerations, as set forth in the January 9, 2017 Indian Point Agreement between and among Entergy and NYSDEC, the outage and reporting requirements reflected in Condition 26, the traveling screens and fish return and handling system reflected in Condition 27, and the flow conditions reflected in Condition 6 (which employ multi-speed pumps), constitute the continuing measures for best technology until termination of operations at Units 2 and 3. Based on its consideration of these and other unique and specific factors, and the record established in the combined SPDES permit and WQC proceedings, and Entergy's commitment to retire Indian Point Units 2 and 3, as set forth above in this Condition, in its best professional judgment NYSDEC has determined that the measures as set forth in this SPDES permit represent the best technology available for the cooling water intakes for Indian Point Units 2 and 3.

The terms and conditions of Entergy's commitment to Early Retirement, as referenced herein, are as follows:

- "IP2 shall permanently cease operations no later than April 30, 2020, and IP3 shall permanently cease operations no later than April 30, 2021 (collectively the two dates, with such extensions as are provided for in this Agreement, are referred to as the "Retirement Dates"); provided, however, that if NYS 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, the operation of IP2 may be extended upon the mutual agreement of NYS and Entergy, but in no event beyond April 30, 2024, and the operation of IP3 may be extended upon the mutual agreement of NYS and Entergy, but in no event beyond April 30, 2025, in accordance with applicable law and regulatory requirements. Nothing in this Paragraph 1 affects Entergy's rights and obligations under tariffs of the New York Independent System Operator, Inc. ("NYISO") governing large generator retirements."
- "No extension to address a condition or circumstance described in Subparagraph 1.a shall exceed two years in duration.

Further, there shall be no extensions to address a condition or circumstance described in Subparagraph 1.a which exceed a total of four years for each of IP2 and IP3, meaning, for the avoidance of doubt, that no such extensions shall be

granted beyond April 30, 2024 for IP2 and beyond April 30, 2025 for IP3.

(a) NYS and the AG shall each have the right under this Agreement and (b) Riverkeeper shall have the right pursuant to this Agreement and Appendix I, respectively, to seek enforcement of the provisions of Subparagraphs (b)(i) and (b)(ii) of this Paragraph 1.

Notwithstanding the foregoing provisions of this Subparagraph 1.b, the restrictions in Subparagraphs (b)(i) and (b)(ii) and the rights conferred in Subparagraph (b)(iii) are expressly subject to any order issued by the United States Secretary of Energy pursuant to Section 202(c) of the Federal Power Act.”

- “On or before February 8, 2017, Entergy shall file with NRC an amendment to its pending license renewal application for Indian Point Unit 2 and Unit 3 to update the proposed term of the renewed licenses from 20 years for each unit to the periods ending April 30, 2024 for Unit 2 and April 30, 2025 for Unit 3. If Entergy reasonably concludes that the NRC intends to treat the filing described in the preceding sentence other than as a routine amendment to the license renewal application, i.e. as requiring re-noticing or re-docketing, Entergy may withdraw the filing. Entergy commits to confer with Riverkeeper’s NRC counsel and the AG prior to taking the actions described in this Subparagraph 1.c.”
- “Notwithstanding the foregoing or anything to the contrary in this Agreement, Entergy may, in its sole discretion, temporarily or permanently cease operations of IP2 and/or IP3 at any point in time prior to the dates set forth herein (a) in accordance with applicable regulatory requirements, (b) on the date that coincides with the end of the respective unit’s then current fuel cycle, and/or (c) without notice to any Party if ENOI reasonably determines cessation of operations is necessary or required to ensure the protection of the health and safety of employees, residents, the surrounding community, and/or the environment.”

THE FINAL WQC

The Final WQC requires compliance by Entergy with the terms of the Final SPDES Permit, including Early Retirement. In particular, in addition to WQC general conditions, the Final WQC contains the following specific conditions:

1. Water Quality Certification. The Department of Environmental Conservation (the “Department”) hereby certifies that the subject license renewals for the Indian Point Nuclear Plant will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217), provided that all of the conditions listed herein are met. This WQC supersedes the Department’s April 10, 2010 Notice of Denial.

2. Operating in Accordance with SPDES Permit. The WQC holder is authorized to operate its cooling water intake structure and to discharge in accordance with effluent limitations, monitoring and reporting requirements, other provisions and conditions set forth in this WQC, which expressly incorporates, among other permits, the SPDES permit issued with this WQC, including Early Retirement, and any subsequent, conforming SPDES permit for the Indian Point Nuclear Power Plant issued during the term of this WQC in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and the Clean Water Act, as amended, (33 U.S.C. § 1251 et seq.), pursuant to NYCRR Title 6, Chapter X, State Pollutant Discharge Elimination System (“SPDES”) Permits Part 750-1.2(a) and 750-2.

SEQR FINDINGS

Introduction and Executive Summary.

In its November 12, 2003 draft SPDES permit and accompanying Fact Sheet, New York State Department of Environmental Conservation (“Department” or “NYSDEC”) Staff preliminarily identified closed-cycle cooling as the best technology available (“BTA”) for the Indian Point Nuclear Plant, consisting of operating Units 2 (which obtains incidental support from Unit 1) and 3, for purposes of complying with the Department’s entrainment reduction goals under Section 316(b) of the federal Clean Water Act and 6 NYCRR § 704.5, as later supplemented by Commissioner Policy CP-52 (July 10, 2011), contingent on the Nuclear Regulatory Commission (“NRC”)’s issuance of license renewal determinations, and subject to comprehensive review of that technology, and any other alternative technologies or operational plans, on a site-specific feasibility basis and under the State Environmental Quality Review Act (“SEQR”). (The major documents relating to the NRC license renewal for the Indian Point Nuclear Plant are maintained by NRC at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/indian-point.html>.)

On June 23, 2003, Department Staff accepted and noticed for public comment a proposed Final Environmental Impact Statement for certain Hudson River Facilities, including Indian Point (the “2003 FEIS”). Pursuant to the August 13, 2008 Interim Decision of the Assistant Commissioner, NYSDEC Staff were directed to develop a supplemental, Indian Point-specific SEQR review to amplify the FEIS to address the site-specific BTA technology proposed in the draft SPDES permit, with the Assistant Commissioner specifically referencing the then-proposed closed-cycle cooling and other alternatives that Entergy was authorized to submit. *See* Interim Decision, p. 38.

As detailed in the SPDES permit and Fact Sheet, and in recognition of Entergy’s commitment to retire Indian Point Units 2 and 3 no later than 2020 and 2021, respectively (subject to the terms and conditions of that commitment, including with respect to electric-system reliability) (the “Retirement Dates” and “Early Retirement”), NYSDEC Staff has determined that pursuant to the record of this proceeding and under the unique and specific factors of this case, Early Retirement constitutes BTA for Indian Point Units 2 and 3. For the reasons discussed in the FSEIS and set forth below, closed-cycle cooling does not constitute BTA in this instance. As discussed below, NYSDEC Staff has issued a renewed SPDES permit that includes the Early Retirement commitment (Condition 28), together with the scheduling of Indian Point’s planned refueling and maintenance outages between February 23 and August 23 each year (Condition 26), flow limitations (Condition 6) and continued operation of the existing suite of cooling water intake structure technologies (Condition 27), as well as continued intensive Hudson River monitoring (Condition 25; collectively, for SEQR purposes, the “Early Retirement Alternative”), all based on terms and conditions substantially similar to Indian Point’s existing SPDES permit, as evaluated in the FEIS. Entergy’s commitment to Early Retirement also allows NYSDEC to determine that continued operation of Indian Point Units 2 and 3 consistent with the provisions for Early Retirement will comply with State water quality standards, and to issue a WQC.

NYSDEC Staff also relies, pursuant to 6 NYCRR § 617.15(a), in relevant part on the NRC's December 2010 Final "Supplement 38 Regarding Indian Point Generating Units 2 and 3" to NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants, which goes by the reference NUREG 1437, Supplement 38, Volumes 1-3, as it has been supplemented through this date (collectively, the "2010 NRC FSEIS"). The multi-volume 2010 NRC FSEIS contemplates continued operation of Indian Point through and beyond the Retirement Dates, employing the cooling water intake structure technologies and related measures required in the renewed SPDES permit. *See* 6 NYCRR § 617.15(a) ("When a draft and final EIS for an action has been duly prepared under the National Environmental Policy Act of 1969, an agency has no obligation to prepare an additional EIS under this Part, provided that the Federal EIS is sufficient to make findings under section 617.11 of this Part.").

NYSDEC Staff further relies on the extensive record of the combined SPDES permit and WQC administrative proceedings (Matter of Entergy Indian Point Units 2 and 3) that commenced in November 2003, and include 1,500 proposed technical and scientific exhibits, as well as in excess of 16,400 pages of verified transcripts consisting of the sworn testimony of more than 54 witnesses, including leading national experts and NYSDEC Staff (collectively, the "Administrative Record"). NYSDEC Staff finds this Administrative Record to be a thoroughly comprehensive, technically supported record for SPDES permit renewal.

The 2003 FEIS, the 2010 NRC FSEIS, and the substantial compilation of information since 2003 informing NYSDEC Staff's final SPDES permit in the Administrative Record underscore that a "hard look" has been undertaken. While Department Staff's ultimate issuance of a SPDES permit on substantially the same terms as the prior permit renders this matter comparable to a "Type II" action, under the unique circumstances of this permit application Department Staff nonetheless has elected to publicly notice and submit supplemental SEQR findings to support issuance of the SPDES permit and supplement the FEIS. Supplemental information is limited to that required to supplement the FEIS.

The administrative and adjudicatory record, including insofar as it incorporates studies and reports of the New York Independent System Operator ("NYISO") and New York Public Service Commission ("NYPSC"), including but not limited to iterations of the NYISO Reliability Needs Assessment and Comprehensive Reliability Plan, and documents from the NYPSC Indian Point Reliability Contingency Plan docket (such as the order establishing that docket, and the NYPSC environmental impact statement for that docket), as well as documents from NYSDEC and other governmental documents pertaining to the Regional Greenhouse Gas Initiative, document the contribution of Indian Point to New York State's bulk electric system, particularly in the short-to-medium term. This contribution is measured in terms of electric system reliability, wholesale and capacity market pricing, and reductions in emissions of criteria air pollutants and greenhouse gases. The record also identifies that any potential impacts to reliability and capacity in the medium-to-long term are expected to be avoided or mitigated given responsive measures taken on the basis of planning on the part of the NYISO and the NYPSC, and the SPDES Permit's and WQC's recognition of the need for temporary continued operation of Indian Point in order to preserve system reliability and capacity if necessary mitigation is not forthcoming. For these reasons, the record demonstrates that Early Retirement will satisfy electric generating capacity needs and other electric system needs in a manner consistent with the State Energy Plan.

SEQRA Proposed Action and Alternatives.

The SEQR action in question is the pending 1992 application of Entergy's predecessors to renew the 1987 SPDES permit for Indian Point Units 2 and 3 in accordance with applicable regulations pertaining to SPDES permitting, as well as Entergy's 2009 application to obtain a Clean Water Act Section 401 Water Quality Certification relating to the license renewal application to NRC, and NYSDEC Staff's determination of coastal consistency for continued operation of Units 2 and 3. That SEQR action produced a draft EIS in December 1999 (submitted by Entergy's predecessors at Indian Point and two other Hudson River electric generating facility operators) that the Department accepted in March 2000. The Department subsequently issued a notice of complete application in the Environmental Notice Bulletin and in local newspapers. As noted above, the Department issued a FEIS in 2003 which consists of the original DEIS submitted by the facilities' operators; comments received on the DEIS (1999); the Department's responses to those comments; plus expanded discussions of the regulatory setting and alternatives for mitigation of impacts from the operation of the facilities.

The summary of the SEQR action with respect to BTA is as follows:

For purposes of impingement minimization and SEQR, NYSDEC staff determined that Entergy's existing suite of screening and fish return technologies, in conjunction with Indian Point's operational practices of flow minimization and scheduled outages, and as supplemented by the Early Retirement Alternative, constitutes BTA on a site-specific basis.

For purposes of entrainment minimization and to complete a review of entrainment impacts under SEQR, NYSDEC Staff considered a wide range of different potential BTA technologies on a site-specific basis at Indian Point, with concerted exploration of the following two BTA technologies and options:

- Closed-cycle cooling ("CCC"): multiple reports submitted by Entergy from, among others, Enercon Services, Inc. ("Enercon") examined the site-specific feasibility of retrofitting Indian Point with round hybrid cooling towers, as well as the significant adverse environmental impacts of constructing and operating this technology at Indian Point. Enercon's analysis subsequently was supplemented with a report from Department contractor Tetra Tech, Inc. ("TetraTech"), which examined the feasibility and significant adverse environmental impacts of retrofitting Indian Point with Clear-Sky towers, in addition to round hybrid towers. The NRC also completed an evaluation of CCC in its 2010 FSEIS.
- Cylindrical wedgewire screens ("CWWS"): multiple reports submitted by Entergy from, among others, Enercon examined the site-specific feasibility and significant adverse environmental impacts of constructing and operating this technology at Indian Point.

In addition to these technologies, the Department also considered operational measures consisting of annual fish protection outages. Multiple reports submitted by, among others, Enercon and the Department regarding the feasibility of requiring annual fish protection outages (of 42, 62 or 118 days) at Indian Point each spring and summer at both units, or at one unit with

the second unit converting to CCC, as well as the significant adverse environmental impacts of implementing these various regimes at Indian Point.

Also consistent with SEQR, the Department considered the Early Retirement Alternative summarized above.

Based upon all of the record evidence submitted, and Entergy's commitment to retire Indian Point Units 2 and 3 in 2020 and 2021, respectively (subject to the terms and conditions of that commitment, which include consideration of electric system reliability), NYSDEC has determined that CCC is not the best technology available given the substantial, site-specific challenges, the length of time that would be required to retrofit from the existing once-through cooling system to a closed-cycle cooling system at both Units, and given the limited life span (if any) of Indian Point Units 2 and 3 after implementation of the closed-cycle cooling system. The length of time required to design, permit and construct closed-cycle cooling technology at the facility would likely be at least 9.5 years and would involve significant costs.

NYSDEC also has determined that CWWS is not the best technology available, based on the length of time that would be required to retrofit from the existing cooling water intake structure to CWWS and the costs associated with constructing and operating CWWS on the bed of the Hudson River for a limited period of time.

Finally, NYSDEC has determined that dual-unit summertime fish-protection outages are not the best technology available, based on the length of time that would be required to implement such outages and the costs associated with such outages, including in terms of electric-system reliability.

Instead, NYSDEC has determined that the Early Retirement Alternative, consisting of the more limited outage requirements reflected in Condition 26 of the SPDES permit, the traveling screens and fish return and handling system reflected in Condition 27 of the SPDES permit, and the flow reductions reflected in Condition 6 of the SPDES permit, together with the commitment to Early Retirement in Condition 28 of the SPDES permit, constitute the continuing measures for best technology until retirement of Units 2 and 3. Based on its consideration of these and other factors, and the record established in the combined SPDES permit and WQC proceedings, in its best professional judgment NYSDEC has determined that the measures as set forth in the final SPDES permit represent the best technology available for the cooling water intakes for Indian Point Units 2 and 3 through the Retirement Dates.

In reaching this decision, NYSDEC considered the following record evidence with respect to the SEQR impacts of CCC:

- Evidence that construction and installation of CCC potentially represents significant nuclear safety challenges for Indian Point, as well as potentially significant disruption to Indian Point's existing operations, including with respect to blasting, salt deposition, fogging, icing and flooding.

- Evidence that CCC, including as implemented with annual fish-protection outages, would have potentially significant adverse impacts on scenic resources in the Lower Hudson River Valley region.

- Evidence that the nearly year-long construction outage necessary for CCC could result in impacts to electric system reliability, increased wholesale and capacity market costs for consumers, and increased air emissions, including from fossil-fueled replacement generation facilities which could be proximate to environmental justice communities.

- Evidence that CCC, including as implemented with annual fish-protection outages, would have potentially significant adverse impacts on community character, including by resulting in operational noise levels in violation of Village of Buchanan zoning requirements.

- Evidence that construction and operation of CCC could negatively impact rare, threatened, or endangered species, such as the bald eagle and Indiana bat.

NYSDEC also considered the following record evidence with respect to the SEQR impacts of CWWS:

- Evidence that construction and operation of CWWS, including as implemented with an air-burst system, would represent a long-term loss of in excess of five acres of Hudson River bottomlands.

- Evidence that construction and operation of CWWS could negatively impact rare, threatened, or endangered species, such as the short-nose sturgeon and Atlantic sturgeon.

NYSDEC further considered the following further record evidence with respect to the SEQR impacts of dual-unit summertime fish protection outages:

- Evidence that annual fish-protection outages (of 42, 62 or 118 days), could result in impacts to electric system reliability, increased wholesale and capacity market costs for consumers, and increased air emissions, including from fossil-fueled replacement generation facilities which could be proximate to environmental justice communities.

- Evidence that annual fish-protection outages could potentially have significant, adverse impacts on traffic patterns, including the regional highway systems.

Finally, NYSDEC considered the following record evidence with respect to the SEQR impacts of the Early Retirement Alternative:

- Evidence that Early Retirement on the dates indicated would provide time for mitigative measures to avoid an adverse impact on New York's bulk electric system reliability.

- Evidence that construction of CCC, construction of CWWS and shifting to annual fish-protection outages at Indian Point each would take many years to design, implement and achieve. This extended and uncertain period of time, together with Entergy's commitment to Early Retirement, provides the basis for determining that the Early Retirement Alternative will provide greater environmental benefits (reductions in impingement and entrainment) than the other alternatives, with reduced adverse environmental impacts in comparison to the other alternatives.

Consistent with 6 NYCRR § 617.15, NYSDEC also considered evidence in the 2010 NRC FSEIS, including as summarized in Section 8, specifically Volume I, Tables 8-1 at p. 8-19 and 8-2 at p. 8-21, that the adverse environmental (including socio-economic) impacts of CCC range from small to large, with most categories of impacts reflecting potentially moderate or large impacts (*i.e.*, above the significance threshold), whereas the adverse impacts of Early Retirement, as evaluated in the "no action alternative," are almost entirely small or non-significant. The 2010 NRC FSEIS therefore summarizes, at the requisite level of detail, analyses of the potential significant adverse impacts of the Early Retirement of Indian Point Units 2 and 3, including with respect to potential impacts on electric-system reliability, reactive power, and electricity affordability, as well as community character considerations as a result of employment, taxation, payment in lieu of taxation ("PILOT"), traffic and property valuation considerations. Increased property values after the Retirement Dates are expected to offset, in part, taxation and PILOT payment reductions at the Retirement Dates. Employment reductions after the Retirement Dates will occur, but are phased and spread throughout the region. Also, Entergy's commitments in connection with the Retirement Dates include transition planning for the cessation of electric-generating operations and retention of employees within the Entergy system, further mitigating these potential impacts. Finally, Entergy could elect to shut down Indian Point at any time, subject to relevant electric-system reliability considerations, with the result that closure of facilities is typically outside of the scope of SEQR review. Thus, operation of Indian Point through the Retirement Dates does not implicate any significant impacts that were not explored in the 2010 NRC SFEIS.

In conjunction with Entergy's commitment to the Early Retirement Alternative, NYSDEC Staff conclude that Entergy's proposal to conduct outages described in Condition 26 of the SPDES permit, as well as Entergy's continued operation of the variable speed pumps, flow limitations, Ristroph modified traveling screens and fish handling and return systems, constitutes BTA. Condition 26 requires Entergy to schedule Indian Point's annual refueling and maintenance outages at Indian Point during a time of the year (February 23 through August 23) when there more likely will be significant quantities of organisms at risk of entrainment in the vicinity of Indian Point.

Taking into account Early Retirement, Condition 26 is comparable to conditions in the prior 1987 SPDES permit and consistent with the 2003 FEIS. Condition 26 allows planned outages to take place before the summer peak load period, which typically occurs between June and August in any given year. Condition 26 also acknowledges the importance of New York's electric system reliability. Condition 26 also does not require outages to take place during most of the summer ozone season. Thus, Condition 26 is both consistent with the prior FEIS and does not result in significant adverse environmental impacts.

In addition, Condition 26 does not implicate any significant impacts to New York's electric system reliability because Indian Point Units 2 and 3's contribution to system reliability will be maintained while it continues to operate. The SPDES permit is thus consistent with the most recent State Energy Plan published in 2015 (available at <http://energyplan.ny.gov/Plans/2015>).

Entergy's acceptance of the SPDES permit as a condition incorporated by reference into the WQC, among other things, allows NYSDEC to conclude that Indian Point Units 2 and 3 will be operated in compliance with State water quality standards.

Balancing Alternatives.

The challenges to implementing CCC, fish-protection outages and CWWS render them uncertain to be achieved. Assuming they are implemented, the long implementation timelines of CCC, fish-protection outages and CWWS render the entrainment reduction benefits of these technologies contingent and unlikely to be experienced from issuance of a disputed final permit until after the Retirement Dates. This means that the subsequent operating periods, if any, for these entrainment-reduction strategies could be negligible, if anything at all, and if so thereby rendering implementation costs a wasted expense. Early Retirement, on the other hand, will provide certain reductions in impingement and entrainment following the Retirement Dates, without additional implementation costs beyond those Indian Point's owner would eventually bear upon retirement in the normal course.

While the benefits of CCC, fish-protection outages, and CWWS are uncertain, the significant adverse impacts of CCC, fish-protection outages and CWWS, as summarized above, are substantial and in many instances not readily avoidable or mitigated. Early Retirement, on the other hand, reduces or eliminates those significant adverse impacts, particularly given the lead time before early retirement occurs and the allowance for electric system reliability concerns.

Thus, on balance, the Early Retirement Alternative minimizes entrainment at the Indian Point Nuclear Power Plant with the fewest and least severe impacts to the larger environment.

Legal Requirements.

Issuance of these findings supports NYSDEC's issuance of the Indian Point SPDES permit and WQC, which both reflect Staff's determination that CCC is not BTA in light of Entergy's commitment to the Early Retirement Alternative, and Staff's determination that the Early Retirement Alternative is consistent with the policies and requirements embodied in the State Environmental Quality Review Act, specifically Environmental Conservation Law ("ECL") § 3-0301(1)(b), (2)(m) and 8-0113, and the rules thereunder at 6 NYCRR Part 617, the federal Clean Water Act, specifically Sections 316(b) and 401 of the Clean Water Act, 33 U.S.C. § 1365(b), and related regulations, the Environmental Conservation Law, specifically ECL Article 17, and related regulations including 6 NYCRR § 608.9 and Parts 700 – 704, including § 704.5, and Commissioner's Policy CP-52. The Department has made the requisite New York State coastal consistent findings, as reflected in the attached Coastal Assessment Form, consistent with ECL, Article 42 and 19 NYCRR Part 600.

The Department has considered the relevant environmental impacts, facts and conclusions disclosed in the 2003 FEIS and the 2010 NRC FSEIS, as well as the record of the SPDES Permit and WQC administrative proceedings, weighed and balanced relevant environmental impacts with social, economic and other considerations, and hereby certifies that, from among the reasonable alternatives available, the action is the one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

New York State Department of Environmental Conservation

By:

Title:

Major Supporting Documents.

The primary analyses supporting these findings are summarized in the following publicly available environmental impact statements and rely on the references therein:

- June 2003 Final Environmental Impact Statement.
- December 2010 Final “Supplement 38 Regarding Indian Point Generating Units 2 and 3,” to NRC’s Generic Environmental Impact Statement for License Renewal of Nuclear Plants, and goes by the reference NUREG 1437, Supplement 38, Volumes 1-3.

In addition, these SEQR Findings rely on the record, including all testimony and exhibits, developed in the SPDES and WQC administrative proceedings, with specific reference to the following documents:

Barnhouse, et al. 2008. Entrainment and Impingement at IP2 and IP3: A Biological Impact Assessment. January 2008.

Charles River Associates. 2011. Indian Point Energy Center Retirement Analysis. August 2011.

Enercon Services, Inc. 2010. Evaluation of Alternative Intake Technologies at Indian Point Units 2 and 3. February 2010.

Enercon Services, Inc. 2010. Engineering Feasibility and Costs of Conversion of Indian Point Units 2 and 3 to a Closed-Loop Condenser Cooling Water System. February 2010.

Enercon Services, Inc. 2012. Technical Design Report for Indian Point Units 2 and 3: Implementation of Cylindrical Wedge Wire Screens. April 2012.

Hoffman, F.O. 2015. Estimate of Health Impacts Attributable to Permanent Mandatory Summertime Outages for Personnel at Indian Point Unit 2 and Indian Point Unit 3. June 2015.

Hoover & Keith, Inc. 2014. Acoustic Assessment of the Proposed Cooling Towers for Closed Cycle Cooling. February 2014.

NERA Economic Consulting. 2013A. Benefits and Costs of Cylindrical Wedgewire Screens at Indian Point Energy Center (NERA Environmental Consulting. March 2013.

NERA Economic Consulting. 2013B. “Wholly Disproportionate” Assessments of Cylindrical Wedgewire Screens and Cooling Towers at IPEC. December 2013.

NERA Economic Consulting 2015. Economic Analysis of Permanent Mandatory Summertime Outages at IPEC. June 2015.

New York Department of Environmental Conservation Staff. 2013. Offer of Proof on Permanent Forced Outages/Seasonal Protective Outages. November 2013.

New York Independent System Operator. 2014. NYISO 2014 Reliability Needs Assessment. September 2014.

New York Independent System Operator. 2015. NYISO 2015 Comprehensive Reliability Plan. July 2015.

Nieder, William. 2015. Indian Point Energy Center Unit 2 and Unit 3 BTA Analysis Step Four of the BTA Procedure: The Wholly Disproportionate Test. Amended Wholly Disproportionate Test Report With Outages. June 2015.

Saratoga Associates. 2009. Indian Point Energy Center Closed-Cycle Cooling Conversion Feasibility Study: Visual Assessment. June 2009.

Talisman International. 2015. Evaluation of Regulatory Implications of Permanent Mandatory Summertime Outages at Indian Point 2 and Indian Point 3. June 2015.

Tetra Tech. 2013. Indian Point Closed-Cycle Cooling System Retrofit Evaluation. June 2013.

Tetra Tech. 2014. IPEC ClearSky Retrofit: Planning Schedule. March 2014.

TRC Environmental Corp. 2009. Cooling Tower Impact Analysis for the Indian Point Energy Center. September 2009.

TRC Environmental Corp. 2013A. Environmental Report, New York State Environmental Quality Review Act, in Support of the Draft SEIS for a State Pollutant Discharge Elimination System (SPDES) Permit (No. NY-0004472). March 2013.

TRC Environmental Corp., et al. 2013B. New York State Environmental Quality Review Act: Entergy Response Document To the Tetra Tech Report and the Powers Engineering Report In Support of the Draft SEIS for a State Pollutant Discharge Elimination System (SPDES) Permit (No. NY-0004472). December 2013.

TRC Environmental Corp. 2015. Entergy Supplemental Environmental Report: Permanent Mandatory Summertime Outages. August 2015.

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Coastal Assessment Form

A. INSTRUCTIONS (Please print or type all answers)

1. State agencies shall complete this CAF for proposed actions which are subject to Part 600 of Title 19 of the NYCRR. This assessment is intended to supplement other information used by a state agency in making a determination of significance pursuant to the State Environmental Quality Review Act (see 6 NYCRR, Part 617). If it is determined that a proposed action will not have a significant effect on the environment, this assessment is intended to assist a state agency in complying with the certification requirements of 19 NYCRR Section 600.4.
2. If any question in Section C on this form is answered "yes", then the proposed action may affect the achievement of the coastal policies contained in Article 42 of the Executive Law. Thus, the action should be analyzed in more detail and, if necessary, modified prior to either (a) making a certification of consistency pursuant to 19 NYCRR Part 600 or, (b) making the findings required under SEQRA, 6 NYCRR, Section 617.11, if the action is one for which an environmental impact statement is being prepared. If an action cannot be certified as consistent with the coastal policies, it shall not be undertaken.
3. Before answering the questions in Section C, the preparer of this form should review the coastal policies contained in 19 NYCRR Section 600.5. A proposed action should be evaluated as to its significant beneficial and adverse effects upon the coastal area.

B. DESCRIPTION OF PROPOSED ACTION

1. Type of state agency action (check appropriate response):
 - (a) Directly undertaken (e.g. capital construction, planning activity, agency regulation, land transaction) _____
 - (b) Financial assistance (e.g. grant, loan, subsidy) _____
 - (c) Permit, license, certification X
2. Describe nature and extent of action: Renewal of State Pollutant Discharge Elimination System Permit reflecting "best technology available" determination, issuance of Water Quality Certification in connection with license renewal by Nuclear Regulatory Commission, and Endangered Species Act authorizations, following National Marine Fisheries Service Biological Opinion and Incidental Take Statement, as well as related State Environmental Quality Review Act findings, all relating to the Indian Point Nuclear Power Plant.
3. Location of action:

Westchester County

Village of Buchanan

450 Broadway (Indian Point Nuclear Plant)

County	City, Town or Village	Street or Site Description
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4. If an application for the proposed action has been filed with the state agency, the following information shall be provided:

- (a) Name of applicant: Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc.
- (b) Mailing address: 450 Broadway, Buchanan, New York 10511
- (c) Telephone Number: Area Code (914) 736-8414 (Dara Gray)
- (d) State agency application number: DEC No. 3-5522-00011/00004/NY-0004472 as well as App. Nos. 3-5522-00011/00030 (IP2) and 3-5522-00105/000031(IP3).

5. Will the action be directly undertaken, require funding, or approval by a federal agency?

Yes _____ No X If yes, which federal agency? _____

C. COASTAL ASSESSMENT (Check either "YES" or "NO" for each of the following questions)

- | | <u>YES</u> | <u>NO</u> |
|--|------------|-----------|
| 1. Will the proposed activity be <u>located</u> in, or contiguous to, or have a <u>significant effect</u> upon any of the resource areas identified on the coastal area map: | | |
| (a) Significant fish or wildlife habitats? | <u>X</u> | |
| (b) Scenic resources of statewide significance? | <u>X</u> | |
| (c) Important agricultural lands? | | <u>X</u> |
| 2. Will the proposed activity have a <u>significant effect</u> upon: | | |
| (a) Commercial or recreational use of fish and wildlife resources? | | <u>X</u> |
| (b) Scenic quality of the coastal environment? | | <u>X</u> |
| (c) Development of future, or existing water dependent uses? | | <u>X</u> |
| (d) Operation of the State's major ports? | | <u>X</u> |
| (e) Land and water uses within the State's small harbors? | | <u>X</u> |
| (f) Existing or potential public recreation opportunities? | | <u>X</u> |
| (g) Structures, sites or districts of historic, archeological or cultural significance to the State or nation? | | <u>X</u> |
| 3. Will the proposed activity <u>involve</u> or <u>result in</u> any of the following: | | <u>X</u> |
| (a) Physical alteration of two (2) acres or more of land along the shoreline, land under water or coastal waters? | | <u>X</u> |
| (b) Physical alteration of five (5) acres or more of land located elsewhere in the coastal area? | | <u>X</u> |

- | | | | |
|-----|---|---|----------|
| (c) | Expansion of existing public services of infrastructure in undeveloped or low density areas of the coastal area?..... | | <u>X</u> |
| (d) | Energy facility not subject to Article VII or VIII of the Public Service Law? | | <u>X</u> |
| (e) | Mining, excavation, filling or dredging in coastal waters? | | <u>X</u> |
| (f) | Reduction of existing or potential public access to or along the shore?..... | | <u>X</u> |
| (g) | Sale or change in use of state-owned lands located on the shoreline or under water? | — | <u>X</u> |
| (h) | Development within a designated flood or erosion hazard area?..... | | <u>X</u> |
| (i) | Development on a beach, dune, barrier island or other natural feature that provides protection against flooding or erosion? | — | <u>X</u> |
| 4. | Will the proposed action be <u>located</u> in or have a <u>significant effect</u> upon an area included in an approved Local Waterfront Revitalization Program? | | <u>X</u> |

D. SUBMISSION REQUIREMENTS

If any question in Section C is answered “Yes”, AND either of the following two conditions is met:

Section B.1(a) or B.1(b) is checked; or
 Section B.1(c) is checked AND B.5 is answered “Yes”,

THEN a copy of this completed Coastal Assessment Form shall be submitted to:

New York State Department of State
 Office of Coastal, Local Government and Community Sustainability
 One Commerce Plaza
 99 Washington Avenue, Suite 1010
 Albany, New York 12231-0001

If assistance or further information is needed to complete this form, please call the Department of State at (518) 474-6000.

E. REMARKS OR ADDITIONAL INFORMATION

Preparer's Name: _____
(Please print)

Title: _____ Agency: _____

Telephone Number: (____)____ Date: __

EXHIBIT L

Mark Sanza, Assistant Counsel
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Environmental Conservation
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Re: Entergy Nuclear Indian Point Units 2 and 3: Consolidated Administrative Proceedings regarding SPDES Permit Renewal and Modification (SPDES # NY-0004472) and Water Quality Certification (DEC Nos. 3-5522-0001/00030 (IP2) and 3-5522-00195/00031 (IP3))

Dear Counsel:

Enclosed please find this Tribunal's Summary Hearing Report and Order of Disposition ("Order") regarding the above-referenced consolidated proceedings.

The Order directs New York State Department of Environmental Conservation (the "Department") Staff to complete the processing and issuance of Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc.'s State Pollutant Discharge Elimination System ("SPDES") permit and Water Quality Certification ("WQC"), as well as to complete the State Environmental Quality Review Act ("SEQR") process. Therefore, the above-referenced consolidated proceedings before this Tribunal are concluded.

Please let me know if there is anything further that you require from this Tribunal.

Very truly yours,
Enclosures

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matters of:

**Entergy Nuclear Indian Point 2, LLC and
Entergy Nuclear Indian Point 3, LLC for a
State Pollutant Discharge Elimination
System Permit Renewal and Modification
(SPDES # NY-0004472); and**

**Entergy Nuclear Indian Point 2, LLC,
Entergy Nuclear Indian Point 3, LLC and
Entergy Nuclear Operations, Inc.'s Joint
Application for a Water Quality
Certification (DEC Nos. 3-5522-0001/00030
(IP2) and 3-5522-00195/00031 (IP3))**

**CONCLUSION & ORDER OF
DISPOSITION**

The predecessors in interest of Entergy Nuclear Indian Point 2, LLC and Entergy Indian Point 3, LLC (collectively, “Entergy” or “Applicant”) applied in 1992 for renewal of a State Pollutant Discharge Elimination System (“SPDES”) permit for the Indian Point nuclear powered steam electric generating stations 2 and 3 (the Indian Point Energy Center (“IPEC” or “the Stations”)). IPEC is located on the east side of the Hudson River in the Village of Buchanan, Westchester County, New York. The New York SPDES permit program is a federally-delegated, state-administered program governing the discharge of pollutants (including, as relevant to the electric sector, thermal discharges) into state surface and ground waters. Conditions contained in a SPDES permit govern the discharges of permit holders. New York also uses its SPDES program to enforce the cooling water intake structure requirements of Section 316(b) of the Clean Water Act, 33 U.S.C. § 1365, and 6 NYCRR 704.5.

In 1999, for purposes of the State Environmental Quality Review Act (“SEQR”), Entergy’s predecessor (together with the then-owners of other Hudson River power plants, known as the “Hudson River Facilities”) produced a joint draft environmental impact statement (“DEIS”) in support of their respective applications for SPDES permit renewals for the Hudson River Facilities.

On June 23, 2003, Staff of the New York State Department of Environmental Conservation (“Department” or “DEC”) accepted and noticed for public comment a proposed Final Environmental Impact Statement (“FEIS”) for the Hudson River Facilities, including Indian Point.

On November 12, 2003, Department Staff proposed various modifications to the existing SPDES permit for IPEC, including new conditions to implement closed cycle cooling as the best technology available (“BTA”) to minimize adverse environmental impacts from the Stations’ cooling water intake systems. Department Staff’s BTA determination involved certain conditions related to Nuclear Regulatory Commission (“NRC”) issuance of license renewal

determinations for the Stations, feasibility and SEQR assessments for the proposed BTA technology, as well as Entergy's right to propose an alternative BTA. Various entities, including Entergy, challenged Department Staff's proposed SPDES permit, and various third parties moved to intervene as parties or amici.

A public legislative hearing and issues conference were held with respect to the draft SPDES permit. An issues ruling, admitting intervening parties and setting certain issues for adjudication, was issued on February 3, 2006. In an interim decision, dated August 13, 2008 (the "Interim Decision"), the Deputy Commissioner ruled on interlocutory appeals and advanced various issues to adjudication in the SPDES permit proceeding. See *Matter of Entergy Indian Point 2, LLC*, Interim Decision of the Assistant Commissioner, 2008 N.Y. Env. LEXIS 52 (August 13, 2008). Among other things, the Interim Decision directed the parties to proceed to hearings on the issue of the site-specific BTA for the Stations.

On April 30, 2007, Entergy entities filed with NRC the federal license 20-year renewal applications for IPEC. On April 6, 2009, Department Staff received a joint application for a federal Clean Water Act ("CWA") Section 401 Water Quality Certificate ("WQC") on behalf of Entergy Nuclear Operations, Inc., Entergy Indian Point Unit 2, LLC, and Entergy Indian Point Unit 3, LLC (hereafter, also "Entergy"). Entergy submitted the joint application for a Section 401 WQC to the Department as part of Entergy's license renewal application. Section 401 conditions federal licensing of an activity which causes a "discharge" into navigable waters on certification from the State in which the discharge might originate that the proposed activity would not violate federal or State water-protection laws. 33 U.S.C. Section 1341(a). In order to grant a WQC, the Department must determine whether IPEC's continued operation meets State water quality standards pursuant to CWA Section 401 and Section 608.9 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR").

By letter dated April 2, 2010, Department Staff issued a notice of denial of the WQC application, precipitating a hearing on the grounds identified by various entities, including Entergy. A public comment hearing was held on July 20, 2010, and the issues conference took place the following day, on July 21, 2010. In an issues ruling dated December 13, 2010 ("WQC Issues Ruling"), the administrative law judges ("ALJs") advanced additional issues to adjudication relating to the joint Section 401 WQC application. See *Matter of Entergy Nuclear Indian Point, LLC*, Ruling on Proposed Issues for Adjudication and Party Status, 2010 N.Y. Env. LEXIS 86 (December 13, 2010). The ALJs determined that the hearing on the SPDES and WQC issues would proceed on a consolidated basis and simultaneously, in order to develop a joint record.

The background and procedural history with respect to the renewal and modification of the SPDES permit are set forth in greater detail in the February 3, 2006 ruling on proposed issues for adjudication and petitions for party status, 2006 N.Y. Env. LEXIS 3; the Interim Decision, 2008 N.Y. Env. LEXIS 52 (August 13, 2008); the November 28, 2012 ruling of the Regional Director, 2012 N.Y. Env. LEXIS 80; and the February 3, 2015 issues ruling on permanent forced outages, 2015 N.Y. ENV LEXIS 4. The background and procedural history with respect to the Section 401 WQC proceeding are set forth in greater detail in the WQC Issues Ruling, 2010 N.Y. Env. LEXIS 86 (December 13, 2010).

Parties to the adjudicatory proceeding have included the mandatory parties Department Staff and Entergy; intervenors (Riverkeeper, Inc.; Scenic Hudson; Natural Resources Defense Council, Inc.; County of Westchester; Town of Cortland; African American Environmentalist Association; Richard Brodsky); and amici (City of New York; Independent Power Producers of New York; and Central Hudson Gas & Electric (“CHG&E”)). By letter dated June 26, 2014, CHG&E withdrew from the proceeding.

Hearings have been held to consider Entergy’s proposed BTA (cylindrical wedge wire screens), the Department Staff’s proposed BTA (closed cycle cooling and summertime outages of 42 and 62 days at each unit) and Riverkeeper’s proposed BTA (summertime outages of 118 days at each unit), as well as radiological issues and the issue of best usages, as advanced to adjudication in the issues ruling on the Section 401 WQC application. SEQR issues relating to each of the BTA alternatives were also the subject of hearings. The hearings on these topics began on October 17, 2011, and fifty-eight hearing days have since taken place. The transcript in the proceeding is 16,423 pages long, and 1,499 exhibits have been proposed to be admitted into evidence.

On [DATE], 2017, Mark Sanza, Esq., counsel for the Department in the above-referenced proceedings, delivered to this Tribunal: (1) Stipulation, (2) the final WQC, and (3) the final SPDES permit for Indian Point, with accompanying Fact Sheet, Final Supplemental Environmental Impact Statement (including a completed Coastal Assessment Form) and SEQR Findings.

[ONLY IF APPROPRIATE: The Department and Entergy subsequently advised this Tribunal that all active parties in the above-referenced proceedings have provided written concurrences on the issuance of the final WQC and SPDES permit, SFEIS (including a completed Coastal Assessment Form) and SEQRA Findings.]

Accordingly, pursuant to the Department’s Organization and Delegation Memorandum (O & D Memo) 94-13, titled “Effect of Stipulations on Decision-Making in Permit and Enforcement Hearings” and issued on May 5, 1994, as well as the concurrently issued order and directive of the [Commissioner or his delegate], I am remanding this matter to Department Staff for final processing and issuance of the final SPDES permit and WQC for Indian Point. Issuance of the final SPDES permit and WQC shall include Department Staff’s appropriate action pursuant to the State Environmental Quality Review Act.

Upon issuance of the final SPDES permit and WQC to the Entergy permittees, the above-referenced consolidated proceedings will be concluded.

Albany, New York
[DATE], 2017

Administrative Law Judge

EXHIBIT M

Mark Sanza, Assistant Counsel
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Re: Entergy Nuclear Indian Point Units 2 and 3: Consolidated Administrative Proceedings regarding SPDES Permit Renewal and Modification (SPDES # NY-0004472) and Water Quality Certification (DEC Nos. 3-5522-0001/00030 (IP2) and 3-5522-00195/00031 (IP3))

Dear Counsel:

Enclosed please find the New York State Department of Environmental Conservation (the "Department") [Commissioner or his delegate]'s Final Order and Directive to Department Staff ("Order") regarding the above-referenced consolidated proceedings (the "Proceeding").

The Order directs Department Staff to complete the processing and issuance of Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc.'s (collectively, "Entergy") State Pollutant Discharge Elimination System ("SPDES") permit and Water Quality Certification ("WQC"), as well as the accompanying Fact Sheet and associated SFEIS and findings pursuant to the State Environmental Quality Review Act ("SEQR"). Consistent with the concurrent order of the Administrative Law Judges, dated [DATE], 2017, this Proceeding has been concluded.

Please let me know if there is anything further that you require from the Department.

Very truly yours,

Enclosures

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matters of: Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC for a State Pollutant Discharge Elimination System Permit Renewal and Modification (SPDES # NY-0004472); and Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc.’s Joint Application for a Water Quality Certification (DEC Nos. 3-5522-0001/00030 (IP2) and 3-5522-00195/00031 (IP3))	FINAL ORDER & DIRECTIVE TO DEPARTMENT STAFF
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On [DATE], 2017, counsel for the New York State Department of Environmental Conservation (the “Department”) in the above-referenced consolidated proceedings (the “Proceeding”) delivered to the Administrative Law Judges (the “ALJs”) for the Proceeding: (1) the final Water Quality Certification (“WQC”), and (2) the final State Pollutant Discharge Elimination System (“SPDES”) permit, with accompanying Fact Sheet (collectively, the “Final Permits”) for Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc.’s (collectively, “Entergy”) Indian Point Nuclear Power Plant (“Indian Point”). Department counsel’s correspondence also included a proposed Supplemental Final Environmental Impact Statement (“FSEIS”) under the State Environmental Quality Review Act, including as implemented pursuant to the Environmental Conservation Law and 6 NYCRR Part 617 (collectively, “SEQR”). Department counsel’s correspondence further included a Stipulation between the Department and Entergy outlining the process for issuance of the Final Permits and completion of the SEQR process.

[Either: On [DATE], 2017, the Tribunal determined that parties to the Proceeding had provided written concurrences to the Stipulation, as well as to issuance of the Final Permits, with the SEQR SFEIS and findings.

Or:

On [DATE], 2017, the Tribunal determined that the Stipulation and issuance of the Final Permits, with SEQR SFEIS and findings, obviates or otherwise resolves all disputes among and the issues advanced by all parties to the Proceeding.]

Accordingly, and notwithstanding any prior decision of this Department, including without limitation the 2008 Interim Decision, I hereby direct and confirm the ALJs’ remand to

Department Staff for final processing and issuance of the Final Permits and completion of the SEQR process, including by issuance of the SFEIS.

Upon issuance of the Final Permits, with SFEIS and after appropriate public process, the Proceedings shall be concluded and SEQR satisfied.

Albany, New York
[DATE], 2017

[Commissioner or his delegate]

EXHIBIT N

[DATE], 2017

VIA E-MAIL AND HAND DELIVERY

Hon. Maria E. Villa
Hon. Daniel P. O'Connell
Administrative Law Judges
New York State Department of
Environmental Conservation
Office of Hearings and Mediation Services
625 Broadway, 1st Floor
Albany, New York 12233

Re: Entergy Nuclear Indian Point Units 2 and 3: Consolidated Administrative Proceedings regarding SPDES Permit Renewal and Modification (SPDES # NY-0004472) and Water Quality Certification (DEC Nos. 3-5522-0001/00030 (IP2) and 3-5522-00195/00031 (IP3))

Your Honors,

This letter will serve to inform the Tribunal that, pursuant to your [DATE], 2017 Summary Hearing Report and Order of Disposition ("Order") regarding the above consolidated proceedings, counsel for the New York State Department of Environmental Conservation (the "Department") and Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc. (collectively, "Entergy") hereby provide this Tribunal with the following documents:

1. Final State Pollutant Discharge Elimination System permit for the Indian Point nuclear facility, dated [DATE], 2017;
2. Final Water Quality Certification for the Indian Point nuclear facility, dated [DATE], 2017;
3. Final Supplemental Environmental Impact Statement and associated findings under the State Environmental Quality Review Act ("SEQR").

Pursuant to your Order, as well as the order and directive of the [Commissioner or his delegate], upon issuance by Department Staff of the final SPDES permit and final WQC, as well as completion of the SEQR process, all matters related to these consolidated proceedings are concluded.

On behalf of the identified parties, we appreciate your courtesies and cooperation in resolving these consolidated proceedings. If you have any questions, or need any additional information concerning the foregoing, please do not hesitate to contact me.

Respectfully yours,

Mark D. Sanza, Esq.
Assistant Counsel

cc: Elise Zoli, Esq. – Goodwin Procter
Service List