

IPRenewal NPEmails

From: Chris Hogan [cmhogan@gw.dec.state.ny.us]
Sent: Friday, July 03, 2009 9:10 AM
To: Dara F Gray
Cc: Jeffrey (DOS) Zappieri; paul_eddy@dps.state.ny.us; Jack Nasca; John Parker; Lisa Wilkinson; Mark Sanza; Margaret Duke; Paul Kolakowski; Timothy Rice; Chuck Nieder; William Little; Stuyvenberg, Andrew; Alyse Peterson
Subject: Indian Point Units 2 & 3; Water Quality Certification
Attachments: IP Thermal RFI 7-2-09.pdf

Please see attached regarding the application of Entergy Nuclear Operations, Inc application for a Water Quality Certification in conjunction with the NRC relicensing process for Indian Point Units 2 & 3.

Christopher M. Hogan
Project Manager
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From: Chris Hogan

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Alexander B. Grannis
Commissioner

July 3, 2009

Dara Gray
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, Suite 3
Buchanan, New York 10511

RE: Water Quality Certification; DEC#: 3-5522-00011/00030 (IP2) & 3-5522-00105/00031 (IP3)

Dear Ms. Gray:

The New York State Department of Environmental Conservation (“Department”) is in receipt of your letter dated June 12, 2009, submitted on behalf of Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC (collectively “Entergy”), in partial response to certain items raised by the Department’s May 13, 2009 request for additional information (“RFI”) regarding Entergy’s April 3, 2009 application for a § 401 Water Quality Certification (“WQC”) in conjunction with the federal relicensing of Indian Point Units 2 and 3. Entergy’s June 12, 2009 letter (with attachment and enclosures) requests that the Department, consistent with a 2005 agreement entered into with the Department in the ongoing administrative proceeding for Indian Point’s State Pollutant Discharge Elimination System (“SPDES”) permit renewal/modification, allow Entergy to postpone demonstrating that Indian Point Units 2 and 3 meet State water quality standards until the next SPDES permit term for the nuclear facilities.

In its May 13, 2009 RFI, the Department specifically requested Entergy to demonstrate compliance with all State water quality standards set forth in 6 NYCRR Parts 700 – 704. Necessarily included with that request is a demonstration that Indian Point Units 2 and 3 meet the thermal standards and criteria set forth in 6 NYCRR Part 704. Entergy’s June 12, 2009 letter indicated that Entergy is committed to conducting the required thermal study and, in fact, submitted a proposed protocol for conducting such a study for the Department to review as requested. Nevertheless, Entergy’s June 12, 2009 letter requested that the Department defer requiring Entergy to actually perform any thermal study now and, instead, refers to an agreement that was reached between the parties as part of the separate administrative proceeding for the November 2003 draft SPDES permit for Indian Point. The agreement that was reached between Entergy and Department staff in 2005 as part of the SPDES permit proceeding provided that Entergy would complete a thermal study after “six months of the effective date of the [SPDES] permit.” The September 22, 2005 letter confirming this agreement from Department attorney

William G. Little, Esq, to Maria E. Villa, the Administrative Law Judge presiding over the Indian Point SPDES permit proceeding, was attached to your June 12th letter.

The Department has reviewed Entergy's June 12, 2009 request to postpone the requirement to demonstrate compliance with the thermal standards and criteria in 6 NYCRR Part 704 as part of the current application for the § 401 WQC and defer that requirement as part of the ongoing SPDES permit process. For several reasons, the Department cannot grant this request and reiterates that Entergy must complete a thermal study for Indian Point Units 2 and 3 and include the results of such study as part of its application materials in order for Entergy's § 401 WQC application to be deemed complete, and for the Department to make all of the necessary findings or determinations required by law.

The primary reason the Department cannot grant Entergy's request is that, under the unique and specific circumstances presented by the ongoing administrative proceeding for the renewal/modification of Indian Point's SPDES permit - now pending for nearly 6 years, and without a schedule established as yet for holding the required adjudicatory hearings - staff must consider the SPDES permit and § 401 WQC application processes to be separate. The responsibility of the Department within the federal nuclear relicensing process is to certify that the continued operation of the facilities, in this case for an additional 20 years, meet all New York State water quality standards, including thermal standards and criteria. Pursuant to federal law, the Department only has one year to take action on a § 401 WQC application. Accordingly, the Department cannot issue a § 401 WQC for Indian Point Units 2 and 3 unless this demonstration has been made by Entergy.

With regard to the Department's September 22, 2005 letter submitted in conjunction with the SPDES permit proceeding, there are two points to be made. First, it should be noted that Department staff agreed with Entergy in 2005 to delay submission of a thermal study for Indian Point Units 2 and 3 because, at that time, staff anticipated and indeed required installation of a closed-cycle cooling system (*i.e.*, cooling towers) for both operating nuclear units once a final SPDES permit determining the best technology available for minimizing adverse environmental impact from the cooling water intake structures for the facilities (pursuant to CWA § 316[b] and 6 NYCRR § 704.5) was ultimately issued by the Department.

It is clear that the use of a closed-cycle cooling system would significantly change the nature and extent of the thermal discharge from current operating conditions at Indian Point Units 2 and 3 and, therefore, would necessarily require an entirely new thermal study. In 2005, however, Department staff did not, nor could not, anticipate the length of time that the administrative proceeding for Indian Point's 2003 draft SPDES permit would take to complete. Indeed, since the time Department staff issued the draft SPDES permit for Indian Point Units 2 and 3 in November 2003, to date more than one entire 5-year SPDES permit term has already elapsed and, at present, there are still no dates scheduled yet for holding the adjudicatory hearings that have been required by the Department's Administrative Law Judges and Assistant Commissioner presiding over the matter. Given the foregoing, it is clear that a final SPDES permitting decision for Indian Point Units 2 and 3 cannot, and will not, be issued by the Department prior to the time that the Department has to take action on Entergy's pending § 401 WQC application pursuant to law (April 6, 2010). Thus, the September 2005 agreement for conducting a thermal study referenced in the Indian Point SPDES permit proceeding would not be triggered until after the time the Department has to take action on Entergy's § 401 WQC application.

In this regard, it is important to note that, both the application submitted by Entergy to the

Nuclear Regulatory Commission (“NRC”) for the renewal of licenses to operate Indian Point Units 2 and 3 for an additional 20 years beyond the expiration of the original operating licenses, and Entergy’s subsequent application to the Department for a § 401 WQC to accompany those licenses, seek the continued operation of the nuclear units as they are currently designed and operated. Because the current design and operation of Indian Point Units 2 and 3 requires the withdrawal of approximately 2.5 billion gallons of water per day from the Hudson River for “once-through” cooling purposes, there is no reason for the Department to presume that Entergy intends to install a closed-cycle cooling system as part of its federal relicensing proposal. Indeed, Entergy’s submissions thus far to the NRC in furtherance of its relicensing application indicate that Entergy intends to continue operating Indian Point Units 2 and 3 in once-through cooling mode if granted license extensions from the NRC.

Because the Department can only consider the application that is before it, namely the § 401 WQC application submitted as part of Entergy’s 2007 federal relicensing request (which does not include a proposal to install closed-cycle cooling), the reference to a 2005 agreement made in the context of the separate SPDES permit proceeding is not germane. Moreover, given recent submissions made by Entergy to both the NRC and to the Department indicating that Entergy deems the Department’s 2003 draft SPDES permit for Indian Point Units 2 and 3 to be “effectively vacated,” the Department cannot be assured that Entergy would abide by any previous agreement pertaining to conditions in that permit (such as the one reflected in the September 22, 2005 letter).¹

The second point to be made regarding the Department’s September 22, 2005 letter attached to Entergy’s June 12, 2009 submission is that the Department agreed to a resolution of the thermal issue at that time while only considering its implication and relevance to the SPDES permit application for Indian Point Units 2 and 3 pending since 1992, and the subsequent administrative proceeding on the November 2003 draft SPDES permit. As you will note, the 2005 letter and agreement makes no mention of nor any reference to the Department either consenting or intending to consent to the same agreement as part of an as-yet-unknown and nonexistent § 401 WQC application process for Indian Point Units 2 and 3. At the time of the 2005 agreement, Entergy had not formally applied to the NRC for license extensions for Indian Point Units 2 and 3 and, as such, Department staff did not know if Entergy would seek to relicense the facilities with the NRC or, if so, when such relicensing process would commence.

Finally, and contrary to your contention that “the Department is assured that Entergy’s [thermal] discharges comply with New York thermal Water Quality Standards (“WQS”) as a result of Entergy’s compliance with the thermal requirements contained in its current [1987] SPDES” permit, both Entergy and the NRC are aware of the State’s contention in the NRC relicensing proceeding that the thermal discharges from Indian Point Units 2 and 3 once-through cooling system do not currently meet State water quality standards and criteria found in 6 NYCRR Part 704. *See* “Declaration of David W. Dilks” dated November 28, 2007, submitted to the NRC (Atomic Safety and Licensing Board) by the State of New York, regarding the Renewal of Facility Operating Licenses No. DPR-26 and No. DPR-64 (Indian Point Units 2 and 3) for an Additional

¹ *See* letter dated March 17, 2009 from Elise N. Zoli, Esq., counsel for Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Indian Point 3, LLC, to the Chief, Rulemaking, Directives and Editing Branch – Division of Administrative Services of the U.S. Nuclear Regulatory Commission concerning Entergy’s comments on the Draft Supplemental Environmental Impact Statement prepared by consultants to the NRC Staff for the License Renewal Application for Indian Point Units 2 and 3; and June 1, 2009 written report entitled “Indian Point Energy Center, Closed Cycle Cooling Conversion Feasibility Study – Visual Assessment” prepared for Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC by Saratoga Associates as a subcontractor to ENERCON Services, Inc. (p. 1).

20-year Period [NRC Docket Nos. 50-247 & 50-286; ASLB No. 07-858-03-LR-BD01].² Thus, unlike other existing, non-nuclear electric generating facilities on the Hudson River, Indian Point Units 2 and 3 are particularly unique insofar as the Department has the added legal responsibility and duty to certify to a federal agency (NRC) that Entergy's operating nuclear facilities currently meet State water quality standards. Due to the fact that Indian Point Units 2 and 3 use and discharge a substantially greater amount of water than any other Hudson River power plant, the Indian Point nuclear units have far greater thermal impacts upon the River than other electric generating facilities.

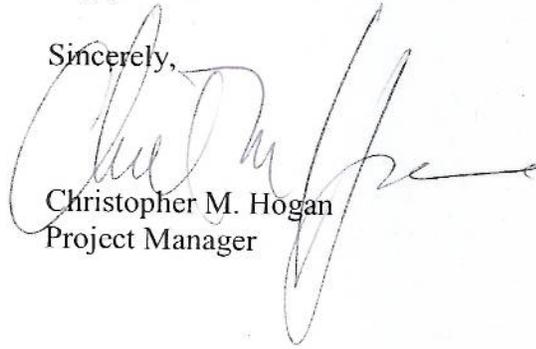
In order to facilitate Entergy's completion of a tri-axial thermal study and submission of results, the Department has conducted a review of the proposed thermal study protocol for Indian Point Units 2 and 3 that was prepared by Applied Science Associates ("ASA") and included with your June 12, 2009 letter. Based on its review of ASA's June 11, 2009 proposal, Department staff provides the following comments:

1. The thermal study protocol does not define the critical ambient temperatures and tidal current conditions such as slack ebb begins and slack flood begins. There is no explicit mention in the study protocol of targeting any of the intensive studies to coincide with critical environmental conditions.
2. The thermal study protocol presumes that the month-long surveys will capture critical conditions, but it should also provide that some of the intensive surveys will be conducted during critical conditions as well. This will require consultation with the Department to determine what constitutes "critical" environmental conditions for purposes of conducting the study.
3. The thermal study protocol should use full thermal loadings instead of 95th percentile load.
4. The thermal study protocol does not include any map(s) indicating placement of proposed sampling, measuring, surveying, or profiling instruments.
5. The thermal study protocol does not include any technical papers or supporting documentation relating to the proposed of the BFHYDRO model. It is the Department's understanding that the BFHYDRO model is a proprietary model of ASA and, therefore, not in the public domain. The use of a public domain model is preferred, and should be considered and selected.
6. The Long Term Study section of the thermal study protocol must provide for assessment of the combined effects of the thermal discharges from other facilities in the vicinity of Indian Point Units 2 and 3 under full thermal loading conditions. Data from these other facilities should be more robust than DMR data and, at a minimum, should include an analysis of daily operating logs.

² Furthermore, as Entergy is aware, a complete thermal demonstration study has not been conducted for Indian Point Units 2 and 3 since the 1970s (*see* Dilks declaration to NRC).

Please contact me if you have any questions regarding this letter or the Department's comments concerning Entergy's proposed thermal study protocol.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Hogan", written over the typed name and title.

Christopher M. Hogan
Project Manager

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P. Eddy – DPS
A. Peterson – NYSERDA
M. Duke – R3
J. Parker – R3
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