



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

February 11, 2015

LICENSEE: Entergy Nuclear Operations, Inc.

FACILITY: Indian Point Nuclear Generating Unit Nos. 2 and 3

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALLS HELD ON DECEMBER 11, 2014 AND JANUARY 13, 2015, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY NUCLEAR OPERATIONS, INC. CONCERNING THE REQUEST FOR ADDITIONAL INFORMATION PERTAINING TO THE INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3 LICENSE RENEWAL APPLICATION ENVIRONMENTAL REVIEW (TAC NOS. MD5411 AND MD5412)

The U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Entergy Nuclear Operations, Inc. (Entergy), held telephone conference calls on December 11, 2014 and January 13, 2015, to discuss and clarify the NRC staff's request for additional information (RAI) concerning the Indian Point Nuclear Generating Unit Nos. 2 and 3 license renewal application environmental review.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the RAIs discussed with Entergy, including a brief description of the status.

Entergy had an opportunity to comment on this summary.

*/RA/*

Michael Wentzel, Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

Enclosure:  
As stated

cc w/encl: Listserv

February 11, 2015

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**ADAMS Accession No.:**ML15022A160

\*concurrence via e-mail

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<b>DATE</b>	2/2/2015	2/4/15	2/8/15	2/11/15

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TELEPHONE CONFERENCE CALL  
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3  
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS  
DECEMBER 11, 2014 and JANUARY 13, 2015

**PARTICIPANTS:**

Dennis Logan  
Michael Wentzel  
Valerie Cullinan  
Larry Barnthouse  
Dara Gray  
Doug Heimbuch  
Mark Mattson  
John Young

**AFFILIATIONS:**

U.S. Nuclear Regulatory Commission (NRC)  
NRC  
Pacific Northwest National Laboratory  
Entergy Nuclear Operations, Inc. (Entergy)  
Entergy  
Entergy  
Entergy  
Entergy

TELEPHONE CONFERENCE CALL  
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3  
LICENSE RENEWAL APPLICATION

REQUESTS FOR ADDITIONAL INFORMATION  
DECEMBER 11, 2014 AND JANUARY 13, 2015

The U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Entergy Nuclear Operations, Inc. (Entergy), held telephone conference calls on December 11, 2014 and January 13, 2015, to discuss and clarify the following requests for additional information (RAIs) concerning the license renewal application environmental review.

**Request for Additional Information (RAI) 1**

**Basis:** The U.S. Nuclear Regulatory Commission (NRC) staff is in the process of performing an independent verification of Entergy Nuclear Operations, Inc.'s (Entergy's) February 19, 2014, submission by using the data from Entergy's October 27, 2014, response to RAIs. The results indicate that the Entergy's "Format 1" data set submitted in October 2014 differs from the data set used in the February 2014 submission. In order to conduct its independent verification, the NRC staff must understand how and why the data sets appear to differ.

**Request:** Provide a clear written explanation of how and why the "Format 1" data in Entergy's October 2014 response to RAIs differ from the data set used in Entergy's February 2014 submission, and if the data differ, provide the "Format 1" data used for the February 2014 submission. Pay particular attention to the calculation of catch-per-unit-effort (CPUE) and density in the two submissions. Also, SAS and other statistical software provide several methods to calculate percentiles, and these can return different results when applied to the same data. Provide the method and cite the software used to determine the 75<sup>th</sup> percentile of the data.

**RAI 2**

**Basis:** As part of the NRC staff's independent verification of Entergy's February 2014 submission, the NRC staff needs to refer to information from the Hudson River Sampling Program.

**Request:** Provide electronic copies of the Hudson River Year Class Reports for years 2006 through 2011. Entergy has already provided electronic copies for previous years.

**RAI 3**

**Basis:** Entergy's October 2014 submission includes a letter to Ms. Dara Gray informing her of the quality assurance methodology employed on the October 2014 data submission. The letter states that the intermediate results of analyses were not identical to the results presented in tables supplied with Entergy's February 2014 submission

**Request:** Provide the intermediate tables comparing models, assessment of potential impacts, strength of connection analysis parameters and results, and the weight of evidence conclusion tables from the October 2014 submission.

#### **RAI 4**

**Basis:** Entergy's October 2014 submission includes a letter to Ms. Dara Gray informing her of an adjustment to the assignment of data associated with a given week, i.e., selected Sunday samples were assigned to the following work week instead of the prior week. The letter also states that this adjustment was made to the data submission provided to the NRC staff prior to preparation of the June 2013 supplement to the Final Supplemental Environmental Impact Statement (FSEIS) for Indian Point Nuclear Generating Unit Nos. 2 and 3. The letter states that "sampling occurred on a Sunday because a holiday occurred within the work week; however, the standard algorithm used to assign a week based upon date resulted in the Sunday samples being assigned to the prior week." As part of NRC staff's review of the data received in October 2014 with that received prior to preparation of the June 2013 supplement to the FSEIS, NRC staff found that the week number assigned to the samples was not always consistent between the two data sets.

**Request:** Provide the original week number assigned to all data and delineate which weeks were adjusted in the February and October 2014 submissions.

#### **RAI 5**

**Basis:** As part of NRC staff's review of the data received in October 2014, the NRC staff found that data for striped bass sample size and volume in the Fall Shoals Survey, River Segment 4 sample for week 41, 1994, were inconsistent with those data received from Entergy by letter dated March 7, 2008.

**Request:** Request Entergy: 1) identify differences between the October 2014 and those data received in the March 7, 2008 submittal; 2) provide reasons for the differences; and 3) provide a rationale for which data set is correct.

#### **December 11, 2014, Discussion:**

Entergy requested clarification as to which data sets were being compared and to the nature of the differences being identified between the sets. To aid in identifying the March 7, 2008, transmittal, the NRC staff agreed to forward data sets from that submittal. Based on the discussion with Entergy, the NRC staff revised RAIs 1, 4, and 5, as noted below. The NRC staff and Entergy agreed to allow additional time to consider the revised RAIs and for an additional phone call to discuss the revisions.

#### **RAI 1**

**Basis:** The U.S. Nuclear Regulatory Commission (NRC) staff is in the process of performing an independent verification of Entergy Nuclear Operations, Inc.'s (Entergy's) February 19, 2014, submission by using the data from Entergy's October 27, 2014, response to RAIs. The results indicate that the Entergy's "Format 1" data set submitted in October 2014 differs from the data set used in the February 2014 submission. In order to conduct its independent verification, the NRC staff must understand how and why the data sets appear to differ.

**Request:** Provide a clear written explanation of how and why the "Format 1" data in Entergy's October 2014 response to RAIs differ from the data set used in Entergy's February 2014 submission, and if the data differ, provide the "Format 1" data used for the February 2014

analysis. Support the explanation of the difference with selected SAS code used to create both data sets. Pay particular attention to the calculation of catch-per-unit-effort (CPUE) and density in the two submissions. Also, SAS and other statistical software provide several methods to calculate percentiles, and these can return different results when applied to the same data. Provide the method and cite the software used to determine the 75th percentile of the data.

#### **RAI 4**

**Basis:** Entergy's October 2014 submission includes a letter to Ms. Dara Gray informing her of an adjustment to the assignment of data associated with a given week, i.e., selected Sunday samples were assigned to the following work week instead of the prior week. The letter also states that this adjustment was made to the data submission provided to the NRC staff from Entergy by letter dated March 7, 2008. The October 2014 letter states that "sampling occurred on a Sunday because a holiday occurred within the work week; however, the standard algorithm used to assign a week based upon date resulted in the Sunday samples being assigned to the prior week." As part of NRC staff's review of the data received in October 2014 with that received prior to preparation of the June 2013 supplement to the Final Supplemental Environmental Impact Statement for Indian Point Nuclear Generating Unit Nos. 2 and 3, NRC staff found that the week number assigned to the samples was not always consistent between the two data sets.

**Request:** Provide the original week number assigned to all data and delineate which weeks were adjusted in the February and October 2014 submissions.

#### **RAI 5**

**Basis:** As part of NRC staff's review of the data received in October 2014, the NRC staff found that data for striped bass sample size and volume in the Fall Shoals Survey, River Segment 4 sample for week 41, 1994, were inconsistent with those data received from Entergy by letter dated March 7, 2008.

**Request:** Please: (1) identify differences (e.g., in week number, number of samples, volume of samples, number of young-of-year caught, and total number of fish caught) between the October 2014 and those data received in the March 7, 2008 submittal; (2) provide reasons for the differences; and (3) provide a rationale for which data set is correct.

#### **January 13, 2015, Discussion:**

Entergy requested clarification as to what was meant by the term "original week number" in RAI 4. NRC staff indicated that it was necessary to compare which weeks corresponded between the 2008 and 2014 data. For RAI 5, Entergy indicated that it was not clear if the example identified in the basis discussion was the extent of the discrepancies, or an example. Also, Entergy stated that requests 2 and 3 seemed to be asking for the same information. As a result, NRC staff revised RAIs 4 and 5, as noted below. Entergy requested additional time to consider the changes made to the RAIs and the scope of the information that the NRC is requesting. The NRC agreed to delay issuing the RAIs pending this review.

#### **RAI 4**

**Basis:** Entergy's October 2014 submission includes a letter to Ms. Dara Gray informing her of an adjustment to the assignment of data associated with a given week, i.e., selected Sunday

samples were assigned to the following work week instead of the prior week. The letter also states that this adjustment was made to the data submission provided to the NRC staff from Entergy by letter dated March 7, 2008. The October 2014 letter states that “sampling occurred on a Sunday because a holiday occurred within the work week; however, the standard algorithm used to assign a week based upon date resulted in the Sunday samples being assigned to the prior week.” As part of NRC staff’s review of the data received in October 2014 with that received prior to preparation of the June 2013 supplement to the Final Supplemental Environmental Impact Statement for Indian Point Nuclear Generating Unit Nos. 2 and 3, NRC staff found that the week number assigned to the samples was not always consistent between the two data sets.

**Request:** Provide a comparative key to the 2008 and 2014 week number assignments and delineate which weeks were adjusted for Sunday sampling events in the February and October 2014 submissions.

#### **RAI 5**

**Basis:** As part of NRC staff’s review of the data received in October 2014, the NRC staff found that those data were apparently inconsistent with those data received from Entergy by letter dated March 7, 2008. For example, those data for striped bass sample size and volume in the Fall Shoals Survey, River Segment 4 sample for week 41, 1994.

**Request:** Please: (1) identify differences (for example in week number, number of samples, volume of samples, number of young-of-year caught, and total number of fish caught) between the October 2014 submittal and those data received in the March 7, 2008 and the December 2007 data disks (labeled IPEC License Renewal – Environmental, Letter NL-07-156, 12/20/07, Enclosures, Disc 1 of 2 data submittal); (2) provide reasons for the differences and rational for the differences, if any; and (3) provide the corrected version, as appropriate.