



Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, N.Y. 10511-0249
Tel (914) 254-6700

John A Ventosa
Site Vice President
Administration

March 16, 2012
IPEC-ADM-12-009

Edward Moore, P.E.
Regional Spills Engineer
Department of Environmental Conservation, Region Three
21 South Putt Corners Road
New Paltz, New York 12561

Thomas Rudolph, P.E.
Regional Engineer
Department of Environmental Conservation, Region Three
100 Hillside Avenue, Suite 1W
White Plains, New York 10603

Re: **Case No. R3-20110124-27, R3-20110124-27-NRD, R3-20110124-27-2, R3-20110124-27-3**

Dear Mr. Moore and Mr. Rudolph:

In accordance with the Order on Consent (the "Order") in the above-referenced matter, this correspondence certifies that Respondents have completed the following items as required in the Schedule of Compliance (the "Schedule") attached to the Order:

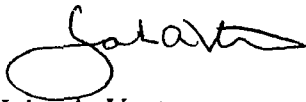
1. Submission of a Remedial Investigation Work Plan to determine the extent of subsurface (soil and groundwater) petroleum (transformer oil) contamination (Item I.A of the Schedule) on January 27, 2012 (copy enclosed);
2. Submission of a Transformer Secondary Containment Evaluation Plan to evaluate the integrity of the #21 main transformer secondary containment system (Item II.A of the Schedule) on February 16, 2012 (copy of plan revised to include NYSDEC staff comments enclosed).
3. Review of the Department's Chemical Bulk Storage regulations, completion of a compliance review of all registered tanks with those regulations, and development of a checklist of chemical bulk storage regulations applicable to Indian Point Units 2 and 3 for the purpose of allowing Respondents to provide annual updates as part of the Spills Prevention Report update required pursuant to 6 NYCRR Section 598.1(k)(2)(vii) and Annual Inspection required pursuant to 6 NYCRR Section 598.7(c)(2)(v) (Item III.A. of the Schedule). Initial checklists were completed and submitted to the Department on April 14, 2011;

AOU
MRR

4. Determination of the Expected Useful Life of each tank and associated piping, based upon existing inspection reports or additional inspections, certifying that information as part of the Spill Prevention Report required pursuant to 6 NYCRR Section 598.1(k)(2)(vii), except for Tank 008-2, which has been removed from service and is being closed (Item III.C of the Schedule). Expected Useful Life information was submitted to the Department on April 14, 2011; and
5. Completion of the inspection and repairs of tanks HMST-11 and HMST 12 (Item III.B. of the Schedule). The inspection and repair report for HMST-11 was submitted to the Department on November 14, 2011 (copy enclosed). A copy of the inspection and repair report for HMST-12 is also enclosed. Tanks HMST-11 and HMST-12 presently comply with all applicable laws and regulations.

If you have any questions regarding the above, please contact Dara Gray at (914) 254-8414.

Sincerely,



John A. Ventosa
Site Vice President

cc: Kelli M. Dowell, Esq., Assistant General Counsel – Environmental, Entergy Corporation
Robert Walpole
Dara Gray
John Parker, Esq., Regional Attorney (*electronic copy in .pdf format on compact disk only*)
Andrew O. Guglielmi, Esq., NYSDEC Office of General Counsel (*electronic copy in .pdf format on compact disk only*)

US Nuclear Regulatory Commission
Attention Document Control Desk
Washington DC 20555-0001

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

..... X
In the Matter of Violations of Article 17 and 40 of
the Environmental Conservation Law ("ECL")
and Navigation Law and Parts 750 and 595
through 599 of Title 6 of the Official Compilation
of Codes, Rules and Regulations of the State of
New York ("6 NYCRR"),

Entergy Nuclear Indian Point 2, LLC and Entergy
Nuclear Indian Point 3, LLC,

Respondents.

(Westchester County)

ORDER ON CONSENT

Case Nos. R3-20110124-27-1
R3-20110124-27-NRD
R3-20110124-27-2
R3-20110124-27-3

..... X
WHEREAS:

1. The Department of Environmental Conservation ("DEC" or "the Department") is a Department of the State of New York ("the State") with jurisdiction to enforce the environmental laws of the State pursuant to Environmental Conservation Law ("ECL") Section 3-0302.

2. DEC has jurisdiction over water pollution control pursuant to ECL Article 17 and over petroleum spills under Navigation Law Article 12, and has jurisdiction over the bulk storage of chemicals pursuant to ECL Article 40.

3. The Commissioner of Environmental Conservation ("the Commissioner") is the designated trustee for New York State's natural resources. With regard to petroleum spills, the Department carries out the State's role as trustee for natural resources pursuant to ECL Section 1-0101, 3-0301, and 15-0601 and Article 12 of the New York Navigation Law (e.g. Navigation Law Section 170).

4. The purpose of ECL Article 40 (Hazardous Substances Bulk Storage Act) is to prevent releases of hazardous substances to air, water and lands of the State. In order to control bulk storage of hazardous substances, DEC promulgated regulations at 6 NYCRR Section 595 to 599 which is enforced under its Chemical Bulk Storage program.

5. This Order on Consent and Administrative Settlement ("Order") is issued pursuant to the Commissioner's authority under the New York ECL Sections 3-0301 and 71-2727 to protect and to restore the environment and the natural resources of the State of New York.

6. This Order is entered into without the taking of testimony, without any adjudication of issues of law or fact, and is in the parties' respective interests and in the public interest. Respondents affirmatively waive their respective rights to a public hearing in the manner provided by 6 NYCRR Part 622 for the matters and events addressed by this Order, consent to issuing and entering of this Order, agree not to contest the authority or jurisdiction of the Commissioner and of the Department to enter into or enforce this Order, and agree to be bound by the terms, provisions and conditions of this Order, including the Schedule of Compliance attached hereto.

RESPONDENTS AND THE FACILITY

7. The Indian Point Energy Center located in Buchanan, New York consists of two separate operating units, known as Unit 2 and Unit 3, respectively.

8. Entergy Nuclear Indian Point 2, LLC ("Indian Point 2") is a limited liability company with offices at 450 Broadway, Buchanan, NY 10511. Indian Point 2 is the owner of Unit 2 and its associated appliances and appurtenances, including the Unit 2 #21 main transformer, transformer deluge system and surrounding containment area and tanks for the bulk storage of chemicals.

9. Entergy Nuclear Indian Point 3, LLC ("Indian Point 3") is a limited liability company with offices at 450 Broadway, Buchanan, NY 10511. Indian Point 3 is the owner of Unit 3 and associated tanks for the bulk storage of chemicals.

10. "Respondents" as used hereafter means collectively Indian Point 2 and Indian Point 3, as appropriate.

11. Some of Respondent Indian Point 2's storage tanks are regulated by the Department pursuant to 6 NYCRR Sections 595 through 599 and are registered with the Department under registration number Chemical Bulk Storage #3-000107.

12. Some of Respondent Indian Point 3's storage tanks are regulated by the Department pursuant to 6 NYCRR Sections 595 through 599 and are registered with the Department under registration number Chemical Bulk Storage #3-000071.

13. The Unit 2 #21 main transformer ("Transformer"), manufactured by Siemens, has a total oil capacity of 19,740 gallons. The petroleum (transformer oil) is Hyvolt II, a severely hydrotreated naphthenic petroleum - a "petroleum" as defined in Section 172 of the Navigation Law. The Material Safety Data Sheet for the petroleum (transformer oil) confirms that it is a non-PCB oil.

14. The Transformer containment area is a moat consisting of concrete walls which go down to bedrock and is filled with bluestone ("containment moat" or "moat"). Respondents state that the containment moat has been designed consistent with National Fire Protection Association requirements to contain at least 110% of the volume of oil from the Transformer as well as the fire protection deluge water released at the design flow rate and for the design time period in the event a fire results from the failure of the Transformer.

15. In the event of a Transformer fire, the deluge system sprays water downward onto the Transformer, and is designed to descend through the bluestone in the containment

moat along with oil which may have been released during the event. Once in the moat, the oil should float on top of the deluge water. If the moat were allowed to fill to capacity, the oil would rise above the top of the bluestone and could become exposed to flames associated with a Transformer fire. However, the moat includes a design feature intended to maintain oil at a depth of six (6) inches or more below the top of the bluestone within the moat, thereby minimizing the potential for exposing the oil from flames.

16. This feature consists of a ten (10) inch diameter pipe with an inlet within and near the bottom of the moat and an outlet located at the top of the moat. The moat is designed so that when a substantial quantity of water collects within the moat during the operation of the deluge system, water from the bottom of the moat is forced up and out of the pipe so as to maintain the level of any oil in the moat more than six (6) inches below the top of the bluestone. The outlet to this pipe allows for the passive discharge of water collected at the bottom of the moat to the Unit 2 storm drain system without collection or sampling prior to discharge. Discharges entering the storm drain at this location flow into the Indian Point Energy Center discharge canal and, ultimately, to the Hudson River.

INDIAN POINT UNIT 2

21 MAIN TRANSFORMER EXPLOSION AND FIRE RELEASED PETROLEUM (TRANSFORMER OIL) TO THE ENVIRONMENT

Respondents state that:

17. At approximately 6:39 pm on November 7, 2010, a bushing within the Transformer failed. The bushing failure resulted in an explosion which breached the walls of the Transformer, causing the release of petroleum (transformer oil) and an ensuing fire.

18. The explosion and fire caused the water deluge system, located immediately above the Transformer and consisting of a series of spray nozzles, to activate automatically.

Deluge water was released from the system at a rate of 1,365 gallons per minute to suppress the fire.

19. At 6:54 pm, a second explosion of the Transformer occurred. Subsequently, emergency response personnel made their way to the Transformer and reported that the fire had been extinguished and began using fire hoses to spray fire suppression foam on the area affected by the explosion. Thereafter, the water deluge system was secured (*i.e.*, turned off).

20. At 7:01 pm, Respondent Indian Point 2 contacted the United States Nuclear Regulatory Commission ("NRC") Operations Center Duty Officer and the NRC's Senior Residents to notify them of the incident. The Unit 2 reactor automatically shutdown as a result of the Transformer failure and Respondent Indian Point 2's personnel maintained the reactor in a safe condition throughout the incident and thereafter.

21. At 8:28 pm, the Indian Point Operations Department completed a condition report indicating that petroleum (transformer oil) mixed with water from the deluge system had overflowed the Transformer containment moat and entered the adjacent turbine building at both the 15 ft. and 5 ft. elevations. The condition report indicated that all sump pumps had been secured within the turbine building and that no oil had been detected in the discharge canal or Hudson River at that time.

22. Following a telephone conversation among the Indian Point Emergency Planning Manager, the Commissioner of the Westchester County Department of Environmental Services, and the First Deputy of the New York State Office of Emergency Management, the State Office of Emergency Management notified the Department of the Transformer incident at 9:49 pm (Spill Report #1008234).

23. At 10:00 pm, the Oil Spill Response Organizations under contract with Respondent Indian Point 2 arrived for incident response and to commence cleanup activities.

24. At 3:53 am the following morning (November 8, 2010), an oil sheen was observed in the Indian Point discharge canal.

25. At 11:00 am on November 8, 2010, an oil sheen was observed in the discharge canal and outside the canal in the Hudson River. At 12:08 pm that day, Respondents contacted the Department's spill hotline to report this condition (Spill Report #1008306). This Spill Report number was closed by the Department on the same day as it was related to Spill Report #1008234 provided the prior evening.

SPILL RESPONSE, CLEANUP AND INVESTIGATION

Respondents state that:

26. On the morning of November 8, 2010, the Oil Spill Response Organizations commenced vacuuming oil from the containment moat, storm drains, and the turbine building floors and sumps. Absorbent booms and sweeps were installed at various locations along the length of the discharge canal. These activities continued for several weeks.

27. On November 17, 2010, absorbent booms were deployed onto the riverfront area of Respondent Indian Point 3's property approximately 300 feet south of the Indian Point Energy Center's discharge canal to address a sheen noted to be emanating from this area. While the booms remained in place, low-pressure power washing of the riverfront area was performed multiple times by Respondents' contractors such that within 21 days no visible sheen remained. No other areas of the riverfront were observed to be impacted, and the U.S. Coast Guard informed Respondent Indian Point 2 that no sheen had been observed as a result of its inspection of triple diamond (environmentally sensitive) areas in the Hudson River that could feasibly have been impacted by the release.

28. As of December 2, 2010, approximately 10,112 gallons of oil had been recovered from the Transformer, the containment moat, and areas outside the containment moat.

including the discharge canal, riverfront area and the Hudson River. The petroleum (transformer oil) was the fuel for the post-explosion fire, but a precise measure of the quantity consumed in the fire is not possible.

CONDITION OF THE # 21 MAIN TRANSFORMER CONTAINMENT MOAT

29. Subsequent investigation identified two construction-related structural conditions that contributed to the release of petroleum (transformer oil) from the containment moat to the environment during the incident and subsequent fire-fighting efforts. First, Respondent Indian Point 2 discovered a notch in the upper wall of the moat adjacent to the turbine building. Based upon oil staining in the area of the notch, some of the petroleum (transformer oil)/deluge water mixture appeared to have flowed in the direction of and through the notch, subsequently flowing into the adjacent turbine building and a nearby stormdrain. Second, following excavation of contaminated stone from the moat, Respondent Indian Point 2 discovered a hole in the bottom of the moat. Based upon oil staining in the area of the hole, some of the petroleum (transformer oil)/deluge water mixture traveled through the stone within the containment moat and exited the moat through this hole.

30. The existence of these two structural faults prevented the containment moat from retaining the petroleum (transformer oil) as designed, and resulted in releases of petroleum (transformer oil) to the ground beneath the moat (through the hole) and to storm drains which drain to the discharge canal and then the Hudson River (after exiting the moat through the notch).

31. While temporary containment measures remained in place to prevent oil from entering the Hudson River, the notch at the top of the moat was repaired and, following

engineering evaluations of support structures within the moat and other safety issues and after several months, the hole in the bottom of the moat was repaired.

**REGULATORY REQUIREMENTS OF THE CLEAN WATER ACT
AND STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM**

32. Respondents are co-permittees on State Pollutant Discharge Elimination System ("SPDES") permit number NY0004472 which authorizes the discharge of certain pollutants from Unit 2 and Unit 3 in accordance with specified limits into the Hudson River from the discharge canal.

33. The SPDES permit does not authorize the discharge of petroleum from the discharge canal to the Hudson River.

34. According to 6 NYCRR Section 750-2.8(a)(2), a SPDES permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of its SPDES permit.

**NATURAL RESOURCE DAMAGES CAUSED BY PETROLEUM
RELEASE TO THE ENVIRONMENT**

35. New York's natural resources, including land, fish, shellfish, wildlife, biota, air, water, groundwater, and other such resources, are held in trust by the State for the benefit of its citizens. Navigation Law, Sections 170 and 172 (definition of "natural resources").

36. The release of petroleum (transformer oil) from Respondent Indian Point 2's facility into the Hudson River injured the natural resources of New York.

37. The Department incurred costs when responding to, assessing, and monitoring the discharge.

38. Respondent Indian Point 2 did not have a permit from the Department to discharge petroleum (transformer oil) into the Hudson River, a natural resource of the State of New York.

39. Pursuant to a formula utilized by the Department's Natural Resource Damage Unit to calculate the natural resource damages associated with a release of petroleum (transformer oil) to a river, the Department calculated that the natural resource damages due the State for the release of petroleum (transformer oil) to the Hudson River is \$62,000.

40. The Department incurred \$5,000 in natural resource damage assessment and restoration oversight costs in this matter.

**ENVIRONMENTAL CONSERVATION LAW VIOLATIONS
RELATED TO TRANSFORMER EXPLOSION
AND SPDES REQUIREMENTS**

41. Respondent Indian Point 2 violated:

A. ECL Section 17-0701(1)(a), which makes it unlawful for any person, until a SPDES permit has been granted, to make or cause to make or use any outlet or point source for the discharge of sewage, industrial waste or other wastes or the effluent therefrom, into the waters of this state because Respondent Indian Point 2 did not have a permit from the Department to discharge petroleum (transformer oil) into the Hudson River.

B. Respondents' SPDES permit number NY0004472, which does not authorize the discharge of petroleum (transformer oil) into the storm drain system or into the Hudson River.

C. ECL Section 17-0803 which makes it unlawful to discharge pollutants to the waters of the state from any outlet or point source without a SPDES permit or in a manner other than as prescribed by such permit, because Respondent Indian Point 2 did not have a permit from the Department to discharge petroleum (transformer oil) into the Hudson River; and 6 NYCRR Section 750-1.4(a) which provides no person shall discharge or cause a discharge of any pollutant without a SPDES permit having been issued to such person pursuant to this Part.

D. 6 NYCRR Section 750-2.8(a) for failing to properly maintain all disposal facilities installed or used by the Respondent Indian Point 2 to achieve compliance with the conditions of the SPDES permit. The notch at the top of the moat and the hole at the bottom of the moat were not consistent with the moat's design, prevented the moat from functioning as intended, and resulted in the release of oil from the moat to storm drains and the environment.

E. Navigation Law Sections 173(1) which prohibits the discharge of petroleum, and 176(1) for failure to contain a discharge of petroleum, because Respondent Indian Point 2's containment moat did not contain the spill of petroleum (transformer oil), some of which entered the discharge canal and the Hudson River.

F. Environmental Conservation Law Section 17-0501, which makes it unlawful for any person, directly or indirectly, to throw, drain, run or otherwise discharge into such waters organic or inorganic matter that shall cause or contribute to a condition in contravention of the standards adopted by the department pursuant to ECL Section 17-0301. The standards adopted by the department pursuant to ECL Section 17-0301 are set forth in 6 NYCRR 703.2 "Narrative Water Quality Standards". 6 NYCRR Section 703.2 provides the Water Quality Standard for Oil and Floating Substances which prohibits "visible oil film or globules of grease" in the surface waters of the State.

G. Navigation Law Section 175 and 17 NYCRR Section 32.3, which require that any person responsible for causing a discharge shall immediately notify the department, but in no case later than two hours after the discharge, and in addition, that the owner or operator of any facility from which petroleum has been discharged; and any person who was in actual or constructive control of such petroleum immediately prior to such discharge, shall immediately give the department the notification required by this Part unless such owner, operator or person has adequate assurance that such notification has already been given. The

State Office of Emergency Management provided notification to the Department more than three hours after the incident occurred and Respondent Indian Point 2 did not independently and officially report the spill until 12:10 p.m. on November 8, 2010, more than seventeen hours after the Transformer explosion occurred.

42. ECL Section 71-1929 provides that a person who fails to perform any duty imposed by Titles 1 through 11 inclusive and Title 19 of Article 17, the rules and regulations promulgated thereunder, or orders or determinations of the commissioner promulgated thereto, shall be liable for a penalty of not to exceed thirty-seven thousand, five hundred dollars (\$37,500.00) per day for each violation, and may be enjoined from any continuing violation.

43. Navigation Law Section 192 provides that any person who violates any of the provisions of Article 12 of the Navigation law or any rule promulgated thereunder shall be liable to a penalty of not more than twenty-five thousand dollars (\$25,000.00) for each offense.

**ENVIRONMENTAL CONSERVATION LAW VIOLATIONS OF THE
CHEMICAL BULK STORAGE PROGRAM AT INDIAN POINT UNIT 2**

44. On January 25, 2011, Department staff performed an inspection of Unit 2 for the purpose of determining compliance with the Chemical Bulk Storage program regulations.

45. On January 25, 2011, Department staff documented that Respondent Indian Point 2 failed to comply with the requirements of the Chemical Bulk Storage Program regulations specified as follows.

A. 6 NYCRR Section 598.7(c)(2)(v) requires annual inspections that must include reviewing compliance with 6 NYCRR Parts 596, 598 and 599. Section 598.1(k) (2) (vii) of 6 NYCRR requires the status reports on compliance with Parts 596, 598 and 599 to be incorporated into the Spill Prevention Report. 6 NYCRR Section 598.1(k) requires the Spill Prevention Report.

B. Respondent Indian Point 2's annual compliance reports incorporated into the Spill Prevention Report did not include detail for three (3) tanks: for Tank numbered HDT-01, Respondent Indian Point 2's annual compliance report did not provide sufficient detail for a period of nine (9) years; for Tank numbered HMST-11, Respondent Indian Point 2's annual compliance report did not provide sufficient detail for a period of seven (7) years, and for Tank numbered HMST-12, Respondent Indian Point 2's annual compliance report did not provide sufficient detail for a period of seven (7) years.

C. 6 NYCRR Section 598.7(d)(1) requires that aboveground storage tanks must be inspected for tightness, structural soundness, corrosion, wear, foundation weakness and operability; tanks must be re-inspected no later than every five years from the date of initial inspection.

D. For tanks numbered HMST-11 and HMST-12 at Unit 2, Respondent Indian Point 2 had failed to complete the five (5) year inspection after an April 2009 inspection revealed further testing was required. These tests were not conducted at that time as required, and the inspection was not completed as required for a period of fifteen (15) months.

E. 6 NYCRR Section 598.7(e) provides that: (e) Uninspected facilities. If any portion of a storage tank system is not inspected as required, the owner or operator must take the uninspected portion of the system out-of-service pursuant to the requirements of section 598.10 of this Part.

F. Tanks numbered HMST-11 and HMST-12 remained in service at Unit 2 and were used to store hazardous substances listed in 6 NYCRR Part 597 from April 2009 until the summer of 2010. This constitutes improper use of uninspected tanks for a period of fifteen (15) months. No release of hazardous substances from these tanks or their respective secondary containments occurred during this period.

G. On January 31, 2011, the Department issued a Notice of Violation to Respondent Indian Point 2, informing it of the violations of the Environmental Conservation Law and New York State chemical bulk storage regulations.

**ENVIRONMENTAL CONSERVATION LAW VIOLATIONS OF THE
CHEMICAL BULK STORAGE PROGRAM AT INDIAN POINT UNIT 3**

46. On January 25, 2011, Department staff performed an inspection of Unit 3 for the purpose of determining compliance with the Chemical Bulk Storage program regulations.

47. On January 25, 2011, Department staff documented that Respondent Indian Point 3 had failed to comply with the requirements of the Chemical Bulk Storage Program regulations specified as follows.

A. 6 NYCRR Section 598.7(c)(2)(v) which requires annual inspections that must include reviewing compliance with 6 NYCRR Parts 596, 598 and 599. Section 598.1(k) (2) (vii) of 6 NYCRR requires the status reports on compliance with Parts 596, 598 and 599 be incorporated into the Spill Prevention Report. 6 NYCRR Section 598.1(k) requires the Spill Prevention Report.

B. Respondent Indian Point 3's annual compliance reports incorporated into the Spill Prevention Report did not include detail for Tanks numbered 001, 002, 003, 004, and 008-2 for a period of four years.

C. 6 NYCRR Section 599.13 which requires that the design life expectancy of all chemical bulk storage piping systems must be determined and specified in the Spill Prevention Report.

D. Respondent Indian Point 3 had failed to have the required design life expectancy specified in the Spill Prevention Report for the chemical bulk storage piping systems for Tanks numbered 002, 003, 004 and 008-2.

E. On January 31, 2011, the Department issued a Notice of Violation to Respondent Indian Point 3, informing it of the violations of the Environmental Conservation Law and New York State chemical bulk storage regulations.

48. Environmental Conservation Law Section 71-4303 provides for a penalty for violation of article 40 of the ECL of \$25,000.00 plus \$25,000.00 each day the violation continues.

NOW, having considered this matter and being duly advised, it is ORDERED that:

I. Civil Penalty and Environmental Benefit Project

A. Civil Penalty

Respondent Indian Point 2 shall be liable for a civil penalty in the amount of One Million Three Hundred Fifty Thousand Dollars (\$1,350,000.00) and Respondent Indian Point 3 shall be liable for a civil penalty in the amount of One Hundred Fifty Thousand Dollars (\$150,000.00), as follows:

1. Payable Penalty - Indian Point 2

Five Hundred Sixty-Two Thousand Five Hundred Dollars (\$562,500.00) shall be payable to the Department within forty-five (45) days of the Effective Date of this Order. DEC case numbers R3-20110124-27-1 and R3-20110124-27-2 shall be endorsed on the face of the check. The civil penalty shall be paid by check, bearing the signature of Respondent Indian Point 2 or an authorized representative of Indian Point 2, made payable to the "Department of Environmental Conservation" and forwarded to John Parker, Regional Attorney, New York State Department of Environmental Conservation, Region 3, 21 South Putt Corners Road, New Paltz, NY 12561.

2. Payable Penalty - Indian Point 3

Sixty-Two Thousand Five Hundred Dollars (\$62,500.00) shall be payable to the Department within forty-five (45) days of the Effective Date of this Order. DEC case number R3-20110124-27-3 shall be endorsed on the face of the check. The civil penalty shall be paid by check, bearing the signature of Respondent Indian Point 3 or an authorized representative of Indian Point 3, made payable to the "Department of Environmental Conservation" and forwarded to John Parker, Regional Attorney, New York State Department of Environmental Conservation, Region 3, 21 South Putt Corners Road, New Paltz, NY 12561.

3. Suspended Penalty - Indian Point 2

Two Hundred Forty-Seven Thousand Five Hundred Dollars (\$247,500.00) shall be suspended provided Respondent Indian Point 2 adheres to the terms and conditions of this Order applicable to it, including the Schedule of Compliance attached hereto.

4. Suspended Penalty - Indian Point 3

Twenty-Seven Thousand Five Hundred Dollars (\$27,500.00) shall be suspended provided Respondent Indian Point 3 adheres to the terms and conditions of this Order applicable to it, including the Schedule of Compliance attached hereto.

5. Environmental Benefit Project - Indian Point 2

Within forty-five (45) days of the Department's approval of the Environmental Benefit Project Implementation Plan pursuant to subparagraph 7 below, Respondent Indian Point 2 shall forward a check in the amount of Five Hundred Forty Thousand Dollars (\$540,000.00) to a third party approved by the Department, such approval not to be unreasonably withheld, to fund the implementation of the Plan. The unspecified Environmental Benefit Project shall be in conformance with the Department's Environmental Benefit Project Policy. Once Respondent

Indian Point 2 has paid these funds to a third party approved by the Department it shall have no further obligation for implementation of any Environmental Benefit Projects.

6. Environmental Benefit Project - Indian Point 3

Within forty-five (45) days of the Department's approval of the Environmental Benefit Project Implementation Plan pursuant to subparagraph 7 below, Respondent Indian Point 3 shall forward a check in the amount of Sixty Thousand Dollars (\$60,000.00) to a third party approved by the Department, such approval not to be unreasonably withheld, to fund the implementation of the Plan. The unspecified Environmental Benefit Project shall be in conformance with the Department's Environmental Benefit Project Policy. Once Respondent Indian Point 3 has paid these funds to a third party approved by the Department it shall have no further obligation for implementation of any Environmental Benefit Projects.

7. Environmental Benefit Project - Indian Point 2 and Indian Point 3

Within 90 days of the Effective Date of this Order, unless the Department determines that additional time is warranted and grants an extension in writing, Respondents shall submit to the Department a description of, and plan for, an Environmental Benefit Project for a project or projects in the amount set forth in Paragraphs 1.A.5 and 6 of this Order (\$600,000.00) that includes a schedule for implementation ("EBP Implementation Plan"). The EBP Implementation Plan is subject to the Department's review and approval, such approval not to be unreasonably withheld, consistent with the procedures in Paragraph VIII of this Order. If the EBP Implementation Plan has not been approved by the Department within six months of the Effective Date of this Order, then the amount set forth in Paragraphs 1.A.5 and 6 of this Order (\$600,000.00) shall be paid as a penalty for the violations identified in this Order by checks, bearing the signature of Respondents or an authorized representative of the Respondents, made payable to the "Department of Environmental Conservation" and forwarded to John Parker,

Regional Attorney, New York State Department of Environmental Conservation, Region 3, 21 South Platt Corners Road, New Paltz, NY 12561. DEC case numbers R3-20110124-27-1, R3-20110124-27-2, and R3-20110124-27-3 shall be endorsed on the face of the checks. The failure to obtain Department approval of the EBP Implementation Plan shall not constitute a violation of this Order, the ECI, or Department regulations. Any statements, whether oral or written, that Respondents (or a third party at the request of the Respondents) makes with respect to the Environmental Benefit Project will include language stating that the project was undertaken as a Consent Order requirement as part of the resolution of an enforcement matter brought by the Department.

II. Natural Resources Damages and Costs Payments.

Respondent Indian Point 2 shall pay for Natural Resources Damages and Assessment and Oversight Costs in the amount of Sixty-Two Thousand Dollars (\$62,000) plus Five Thousand Dollars (\$5,000) as follows:

A. Assessment and Oversight Costs. Five Thousand Dollars (\$5,000) for NRD assessment and restoration oversight costs incurred by the Department and its employees, representatives, agents and others by check, money order, or by electronic funds transfer, payable to "NYSDEC-Natural Resource Damages Fund."

B. Natural Resources Damages. Sixty-Two Thousand Dollars (\$62,000) for Natural Resources Damages caused by the release of petroleum (transformer oil) into the Hudson River, by check, money order, or by electronic funds transfer, payable to "NYSDEC-Natural Resource Damages Fund".

Both Natural Resources Damages and Assessment and Oversight Costs payments shall be made no later than forty-five (45) days after the effective date of this Order, and shall be sent to:

Office of General Counsel
625 Broadway, 14th Floor
Albany, N.Y. 12233-1500
ATTN: Sharon L. Brooks

DEC case number R3-20110124-27-NRID shall be endorsed on the face of the checks.

The provisions of this Order are not intended to and shall not be interpreted to restrict the ultimate authority and discretion of the Commissioner to determine the use of the funds received for natural resource damages and assessment and oversight costs in accordance with applicable law.

III. Schedule of Compliance.

Respondents shall strictly comply with the terms of this Order and with the attached Schedule of Compliance, including requirements related to the timely filing of any report(s), plan(s), proposal(s) and other submissions made pursuant thereto. The Schedule of Compliance and all such submissions are hereby deemed incorporated into this Order, upon approval by the Department if such approval is required, and, to the extent they include affirmative obligations on the part of Respondents, those obligations shall be fully enforceable as part of this Order.

IV. Notice of Noncompliance.

A. In the event that the Department determines, in its reasonable discretion, that a Respondent has violated any provision of this Order, including, but not limited to, the failure of such Respondent to comply fully and in timely fashion with any provision of this Order, the Department may serve upon the Respondent a written notice of noncompliance setting forth the nature of, and factual basis for, the violation(s). Service of such notice may be by personal service or by certified mail return receipt requested (restricted delivery not required) to Robert Walpole, Licensing Manager, at the address of the Respondent specified in

Paragraphs 8 or 9 of this Order, or, if such service is refused or cannot be completed, by ordinary mail, with a copy sent by certified mail to Kelli M. Dowell, Esq., Assistant General Counsel - Environmental, Entergy Corporation, P.O. Box 1640, Jackson, MS 39215.

B. In the event that Respondent(s) has been served a Notice of Noncompliance for items required in this Order or the attached Schedule of Compliance, Respondent(s) shall be granted a reasonable period from receipt of such notice to comply with those identified items without incurring penalty for the identified noncompliance, which shall not exceed thirty (30) days. During that time, Respondent(s) shall be granted a meeting with Department staff to discuss and address the identified violations. Respondent(s) shall submit proof of compliance to the Department within thirty days of receipt of the notice from the Department or Respondent(s) may submit a request to the Department for additional time to achieve compliance together with supporting documentation for the request, the approval of such request not to be unreasonably withheld. If Respondent(s) fails to comply with those items identified in the Notice of Noncompliance, or if Respondent(s) fails to submit to the Department proof of such compliance to the Department within thirty (30) days or within the additional time granted by the Department, the Department shall, in its reasonable discretion, determine whether assessment of all or part of the suspended penalties as set forth in Paragraphs I(A)(3) or I(A)(4) is appropriate.

V. Release.

Conditioned upon the satisfactory performance by Respondents of all of their obligations under this Order, and in consideration of the payment that will be made by Respondents to the Department pursuant to Subparagraph I(A)(1) or Subparagraph I(A)(2) above, as appropriate, and subject only to this Order:

A. The Commissioner, as the designated Trustee for New York State's natural resources, releases Respondents, their parents and affiliates, and each of their officers, directors, employees, agents and successors and assigns (including successors in title) from all claims or causes of action under any federal or State law, and the applicable regulations, for natural resource damages, for natural resource damage assessment costs and restoration oversight costs, resulting from the matters and events described in this Order, including, but not limited to, the release of petroleum (transformer oil) into the Hudson River, described above; and

B. The Department releases Respondents, their parents and affiliates, and each of their officers, directors, employees, agents and successors and assigns (including successors in title) from all claims and causes of action under any federal or State law, and the applicable regulations, resulting from the matters and events described in this Order, including, but not limited to, the identified release of petroleum (transformer oil) into the environment on November 7, 2010, and resulting from acts or omissions related to the implementation of the Chemical Bulk Storage program prior to and including January 25, 2011.

VI. Reservation of Rights and Reopeners

A. Notwithstanding any other provision of this Order, the Commissioner reserves the right to initiate proceedings against Respondent Indian Point 2 and its successors and assigns (including successors in title) seeking recovery of natural resource damages based on (1) conditions that, as of the Effective Date of this Order, were unknown to the Commissioner, and were undiscoverable with the exercise of due diligence and that contribute to and materially increase an injury to, destruction of, or loss of natural resources ("Unknown Conditions"); or (2) information received by the Commissioner after the date of execution of this Order which indicates that there is material injury to, destruction of, or loss of natural resources of a type and extent unknown to the Commissioner and which were undiscoverable

with the exercise of due diligence as of the date of execution of this Order ("New Information"). An increase solely in the assessment of the magnitude of an injury, destruction or loss to natural resources or in the estimated or actual natural resource damages, all arising from or relating to the release, threatened release or disposal of petroleum (transformer oil) at or from the Indian Point Energy Center, shall not be considered to be "Unknown Conditions" or "New Information" within the meaning of this paragraph.

B. Nothing in this Order shall be construed as barring, affecting or diminishing any rights or authorities of the Department, the Commissioner, or the Commissioner's designee, (i) to pursue Respondents, their parents and affiliates, and each of their officers, directors, employees, agents and successors and assigns (including successors in title) for any action, other than for any matter described herein or (ii) to pursue or to take any action whatsoever against any other party.

C. Failure of Respondents to comply with the terms of this Order shall be deemed to be a violation of this Order and of the ECI and, in the event of any such violation, the Department shall be entitled to enforce the terms of this Order, and seek penalties and injunctive relief as provided by applicable law and regulation.

D. Compliance with this Order shall not excuse nor be a defense to charges of any violations of the ECI or any regulation or permit issued thereunder, which may occur subsequent to the date of this Order.

VII. Submissions.

All reports and submissions required in this Order shall be submitted to the Department, via U.S. Mail, or overnight delivery (e.g., Federal Express) as follows:

A. a hardcopy original and an electronic copy in .pdf format on compact disc

to:

1. Edward Moore, P.E.
Regional Spills Engineer
Department of Environmental Conservation, Region Three
21 South Putt Corners Road
New Paltz, New York 12561
Re: Case No. R3-20110124-2, R3-20110124-27-NRD, R3-20110124-27-2, R3-20110124-27-3
2. Thomas Rudolph, P.E.
Regional Engineer
Department of Environmental Conservation, Region Three
100 Hillside Avenue, Suite 1W
White Plains, New York 10603-2860;
Re: Case No. R3-20110124-27, R3-20110124-27-NRD, R3-20110124-27-2, R3-20110124-27-3

B. An electronic copy in .pdf format on compact disc to the:

John Parker, Regional Attorney
Office of General Counsel
Department of Environmental Conservation, Region Three
21 South Putt Corners Road
New Paltz, New York 12561
Re: Case No. R3-20110124-27, R3-20110124-27-NRD, R3-20110124-27-2, R3-20110124-27-3

C. An electronic copy in .pdf format on compact disc to:

Andrew O. Guglielmi, Esq.
Office of General Counsel
Department of Environmental Conservation
625 Broadway, 14th Floor
Albany, New York 12233-1500
Re: Case No. R3-20110124-27-NRD

Respondents shall be responsible for the content of any submissions made pursuant to this Order and shall certify in writing to the Department that such submission complies with the requirements set forth in this Order. Submission of any material containing assertions of fact shall be considered an affirmative representation by Respondents of the truth of such assertions. Respondents shall be in violation of this Order if, in the Department's reasonable

judgment, any submission is of such poor quality that it does not constitute a good faith effort to comply with the provisions of this Order.

VIII. Review of Submitted Remedial Plans and Proposals.

A. After review of any remedial plan or proposal required by this Order and its Schedule of Compliance, the Department shall notify Respondent(s), in writing, of its approval or disapproval of the submission, such approval not to be unreasonably withheld. If the Department approves the submission, Respondent(s) shall implement it in accordance with its schedule and terms, as approved. If the Department disapproves the submission, the Department shall provide to Respondent(s) written notice of its disapproval, specifying with reasonable particularity the grounds for disapproval. Within thirty (30) days after Respondent(s) receive written notice of disapproval, Respondent(s) shall submit a revised submission which responds to each of the Department's specified grounds for disapproval. After the Department's receipt of Respondent(s)' revised submission, the Department shall notify Respondent(s), in writing, of its approval or disapproval of such revised submission, such approval not to be unreasonably withheld. If the Department approves the revised submission, Respondent(s) shall implement it in accordance with its schedule and terms, as approved. If the revised submission is not approvable as submitted, the Department, at its option, may disapprove it or may approve it on condition that Respondent(s) accept such reasonable modifications as may be specified by the Department to make it approvable. If the Respondent(s) do not accept such modifications, the revised submission will be disapproved. If the Department disapproves the revised submission, the Respondent(s) shall be in violation of this Order. Upon Department approval, a submission or revised submission shall be deemed incorporated into this Order.

IX. Inspections.

For the purpose of insuring compliance with this Order, and with related provisions of the ECL and regulations promulgated thereunder, representatives of the Department shall be permitted access to relevant records during reasonable hours to inspect and/or perform such tests which the Department reasonably deems appropriate to determine the status of Respondent(s)' compliance.

X. Other Approvals.

Respondents shall be obligated to obtain whatever permits, easements, rights of entry, approvals or authorizations may be necessary in order to carry out its obligations under this Order. Except as otherwise provided in this Order, this Order shall not relieve the Respondents of the obligation to comply with any other laws, rules or regulations of the State of New York or any other governmental authority which are applicable to Respondents' implementation of the Schedule of Compliance, nor preclude or limit enforcement action as may be authorized by law for violations of such other laws, rules or regulations.

XI. Other Remedies.

(a) Nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting (1) any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against anyone other than Respondents, their parents and affiliates, and each of their officers, directors, employees, agents and successors and assigns (including successors in title); (2) the Department's right to enforce, administratively or at law or in equity, the terms, provisions and conditions of this Order against Respondents, in the event that Respondents shall be in breach of the provisions hereof; (3) the Department's right to seek to require pursuant to the provisions of Paragraph VI(C) of this Order that Respondents take such additional measures as may be necessary for the

protection of public health or the environment, including interim remedial measures; or (4) the Respondents' rights available pursuant to this Order, the Environmental Conservation Law, or as otherwise provided by law, including the right to challenge any action by the Department, whether by administrative hearing, including 6 NYCRR Part 622, judicial review, or otherwise, to the extent permitted by law.

(b) This Order shall not be construed to prohibit the Commissioner or the Commissioner's duly authorized representative from exercising any summary abatement powers, either at common law or as granted pursuant to statute or regulation.

XII. Use of Order.

This Order shall not be admitted as evidence of an admission or declaration against interest against either Respondents, their parents and affiliates, and each of their officers, directors, employees, agents and successors and assigns (including successors in title), or the Department in any proceeding other than one to enforce the terms of this Order. Without limiting the generality of the foregoing sentence, neither the matters and events addressed herein, the imposition of the penalty recited herein nor the fact of Respondents' execution of this Order shall be used in any other context as an indication of Respondents' culpability or non-compliance with environmental obligations.

XIII. Indemnification

Respondents or their successors or assigns shall indemnify and hold harmless the Department, the State of New York, and their representatives and employees for all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Order by Respondents or their affiliates, successors or assigns.

XIV. Force Majeure.

Respondents shall not be in default of compliance with this Order to the extent that Respondents may be unable to comply with any provision of this Order because of the action of a national or local government body or court, an act of God, war, strike, riot or catastrophe as to any of which the negligence or willful misconduct on the part of Respondents was not a proximate cause; provided, however, that Respondents shall use their best efforts to comply. Respondents shall provide written notice to the Department promptly upon obtaining knowledge of such event. In addition, Respondents shall, within twenty-one days of such event, provide written request to the Department for an appropriate extension or modification to this Order, along with documentation evidencing entitlement to relief herein. Relief under this clause shall not be available to Respondents, with regard to a particular event, if Respondents fail to provide timely notice of such event. The Respondents shall have the burden of proving entitlement to relief under this clause, by preponderance of the evidence.

XV. Modification.

This Order may not be modified except in a writing executed by the DEC Commissioner or the DEC Commissioner's authorized representative and the Respondents.

XVI. Entire Agreement.

The provisions hereof shall constitute the complete and entire Order between Respondents and the Department concerning the matters contained herein. No informal advice, guidance, suggestions or comments by the Department regarding reports, proposals, plans, specifications, schedules or any other writing submitted by Respondents shall be construed as relieving Respondents of their obligations to obtain such formal approvals as may be required by this Order.

XVII. Binding Effect.

This Order shall be deemed to bind the Respondents and their successors and assigns. Respondents shall be responsible for ensuring that all work performed under this Order is in compliance with the terms of the Order.

XVIII. Headings.

The section headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Order.

XIX. Effective Date.

This Order on Consent and Administrative Settlement shall not become effective until it is signed by the Regional Director on behalf of the Commissioner (the "Effective Date").

Dated: New Paltz, New York

March , 2012

JOSEPH J. MARTENS
Commissioner
Department of Environmental Conservation

By:

WILLIAM C. JANEWAY
Regional Director, Region 3
Department of Environmental Conservation

This Order on Consent and Administrative
Settlement has been reviewed and
approved by the Regional Attorney as to
form.


By:

JOHN L. PARKER
Regional Attorney

CONSENT BY RESPONDENT

Respondent Indian Point 2 hereby consents to the issuance and entry of this Order on Consent and Administrative Settlement without further notice, waives its right to a hearing in this matter, and agrees to be bound by the terms, conditions and provisions of this Order. The undersigned represents and affirms that they have the legal authority to bind Respondent(s) to the terms and conditions of this Order on Consent and Administrative Settlement.

Entergy Nuclear Indian Point 2, LLC

By: 
Title: IPEC SITE VICE PRESIDENT

ACKNOWLEDGMENT

On this 16 day of MARCH, in the year 2012, before me, the undersigned, personally appeared JOHN A. VENTURA, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies) as shown in the instrument, and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



Notary Public

CHRISTINA LEITMANN
Notary Public, State of New York
Registration #01LE5070946
Qualified in Putnam County
Commission Expires January 6, 2015

CONSENT BY RESPONDENT

Respondent Indian Point 3 hereby consents to the issuance and entry of this Order on Consent and Administrative Settlement without further notice, waives its right to a hearing in this matter, and agrees to be bound by the terms, conditions and provisions of this Order. The undersigned represents and affirms that they have the legal authority to bind Respondent(s) to the terms and conditions of this Order on Consent and Administrative Settlement.

Entergy Nuclear Indian Point 3, LLC

By: 
Title: IPEC SITE VICE PRESIDENT

ACKNOWLEDGMENT

On this 16 day of MARCH, in the year 2012, before me, the undersigned, personally appeared JOHN A. VENTOSA, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies) as shown in the instrument, and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.


Notary Public

CHRISTINA LEITMANN
Notary Public, State of New York
Registration #01LE5070948
Qualified in Putnam County
Commission Expires January 6, 2015

SCHEDULE OF COMPLIANCE

Respondent: Entergy Nuclear Indian Point 2, LLC,
Entergy Nuclear Indian Point 3, LLC

Site or Facility: Indian Point Unit 2, including the Unit 2 #21 main transformer and chemical bulk storage tanks, and Indian Point Unit 3 including chemical bulk storage tanks

DEC Case No.: R3-20110124-27, R3-20110124-27-NRD, R3-20110124-27-2, and R3-20110124-27-3

1. **Self-certification and Delivery:** All submissions to the Department required under this Schedule of Compliance shall comply with the requirements of Section VII of the Order, including with respect to self-certification and delivery. Respondent(s) shall submit to DEC, within fifteen (15) days of each milestone date set forth in this Order, a signed statement certifying that the payment or task required was completed by that date, and that it was done in the manner required by this Order.

Submission of the required certification shall be considered an affirmative representation by the Respondent of the truth of its contents. Any knowingly false statement made therein shall be punishable pursuant to Section 210.45 of the Penal Law, and as may be otherwise authorized by law.

Failure to submit a required certification by the due date shall be a violation of this Order, and shall establish a legal presumption that Respondent(s) has failed to comply with that requirement of the Schedule.

2. **Remedial Activities and Milestones:** Respondent(s) shall timely perform the activities set forth below in a good and workmanlike manner and supply all required labor, equipment and materials at Respondent's own cost and expense:

I. PETROLEUM (TRANSFORMER OIL) RELEASE

REMEDIAL INVESTIGATION WORK PLAN

A. Within ten (10) days of the Effective Date of this Order:

Respondent shall submit to the Department for approval, a Remedial Investigation Work Plan to determine the extent of subsurface (soil and groundwater) petroleum (transformer oil) contamination. Specifically, the Remedial Investigation shall determine the extent of free petroleum (transformer oil) product in/on the water table, and the extent of petroleum (transformer oil) contaminated groundwater in the vicinity of the #21 main transformer location; any petroleum (transformer oil) that may be trapped; and other areas where the release may have impacted the environment, including the area behind the discharge canal wall.

The Remedial Investigation Work Plan shall include sample analyses using EPA Methods 8260/8270 and total petroleum hydrocarbons testing for all water and soil samples. The Remedial Investigation Work Plan shall also include an implementation schedule consistent with terms, requirements, and conditions of this Schedule of Compliance. Once approved by the Department, the terms, requirements, and schedule of the Remedial Investigation Work Plan, duly approved by the Department, shall be an enforceable part of this Order on Consent.

Upon Department approval of the Remedial Investigation Work Plan, Respondent shall implement the Remedial Investigation Work Plan.

REMEDIAL INVESTIGATION REPORT

B. Within one hundred twenty (120) days of receipt by Respondent of Department approval of the Remedial Investigation Work Plan:

Respondent shall submit to the Department, a Remedial Investigation Report, and shall include recommendations addressing the removal of petroleum (transformer oil) contamination identified during the Remedial Investigation.

REMEDIAL ACTION PLAN

C. Within thirty (30) days of receipt by Respondent of any Department comments on the recommendations required pursuant to section I.B. above:

Respondent shall submit to the Department for approval, a Remedial Action Plan to address the identified environmental impacts of the petroleum (transformer oil) release of November 2010. The Remedial Action Plan shall identify cleanup standards and an implementation schedule. The terms, requirements, and conditions of the Remedial Action Plan, duly approved by the Department, shall be an enforceable part of this Order on Consent.

II. TRANSFORMER SECONDARY CONTAINMENT SYSTEMS

**SECONDARY CONTAINMENT SYSTEM EVALUATION PLAN:
#21 MAIN TRANSFORMER**

A. Within ten (10) days of the Effective Date of this Order:

Respondent shall submit to the Department for approval, a Transformer Secondary Containment System Evaluation Plan to evaluate the integrity of the #21 main transformer secondary containment system ("#21 Main Transformer Evaluation Plan"). The #21 Main Transformer Evaluation Plan shall include hydrostatic testing. If Respondent elects to use a method other than a hydrostatic test, Respondent's #21 Main Transformer Evaluation Plan shall be technically supported and shall demonstrate, to the Department's satisfaction, that the secondary containment system is able to collect and contain any potential release from the #21 main transformer. The terms, requirements, and conditions of the #21 Main Transformer Evaluation Plan, duly approved by the Department, shall be an enforceable part of this Order on Consent.

**SECONDARY CONTAINMENT SYSTEM ENGINEERING PLANS AND
SPECIFICATIONS: #21 MAIN TRANSFORMER**

B. Within forty-five (45) days of the Effective Date of this Order:

Respondent shall submit to the Department for approval, engineering plans and specifications for the secondary containment system (the "#21 Main Transformer Engineering Plans and Specifications"), specifying any work that may be required to ensure that the secondary containment system is capable of containing any petroleum (transformer oil) release from #21 main transformer.

The #21 Main Transformer Engineering Plans and Specifications for required work shall include:

- i. The closure and discontinuance of the use of the stormwater disposal system included in the secondary containment system;
- ii. Sufficient testing to confirm that the secondary containment system is structurally supported, impermeable, and has sufficient volume to contain the contents of #21 main transformer and the likely amount of firefighting water that would be released in the event of a fire; and
- iii. If Respondent will retain the current (original) design of the secondary containment system for #21 main transformer then the capability and capacity shall be reviewed to determine whether it meets the current requirements under the Spill Prevention Control and Countermeasure Plan. This analysis shall be included in the #21 Main Transformer Engineering Plans and Specifications.

The #21 Main Transformer Engineering Plans and Specifications shall be certified and stamped ~~by a New York State Licensed Professional Engineer. The terms, requirements, and conditions~~ of the #21 Main Transformer Engineering Plans and Specifications, duly approved by the Department, shall be an enforceable part of this Order on Consent.

C. Within thirty (30) days of the Department approval of the #21 Main Transformer Engineering Plans and Specifications:

Respondent shall submit to the Department a copy of the final design for the #21 main transformer secondary containment system.

D. By May 15, 2012:

Respondent shall complete the secondary containment system evaluation and repairs in accordance with the Department approved #21 Main Transformer Engineering Plans and Specifications. Respondent shall also submit to the Department a letter of certification, stamped by a New York State Licensed Professional Engineer, that the secondary containment system has been installed or repaired in accordance with the Department approved #21 Main Transformer Engineering Plans and Specifications and an evaluation and certification that the secondary containment system provides adequate secondary containment of petroleum spill events that could occur from the #21 main transformer.

**SECONDARY CONTAINMENT SYSTEM EVALUATION PLAN:
#22, #31, AND #32 MAIN TRANSFORMERS**

E. Within six (6) months of the Effective Date of this Order:

Respondent shall submit to the Department for approval, a Transformer Secondary Containment System Evaluation Plan(s) to evaluate the integrity of the #22, #31 and #32 main transformers secondary containment systems ("#22, #31 and #32 Main Transformers Evaluation Plan"). The #22, #31 and #32 Main Transformers Evaluation Plan shall include hydrostatic testing. If Respondent elects to use a method other than a hydrostatic test, Respondent's #22, #31 and #32 Main Transformers Evaluation Plan shall be technically supported and shall demonstrate, to the Department's satisfaction, that the secondary containment systems are able to collect and contain any potential release from the transformers. The terms, requirements, and conditions of the #22, #31 and #32 Main Transformers Evaluation Plan, duly approved by the Department, shall be an enforceable part of this Order on Consent.

**SECONDARY CONTAINMENT SYSTEM ENGINEERING PLANS AND
SPECIFICATIONS: #22, #31, AND #32 MAIN TRANSFORMERS**

F. Within thirty (30) days of Department approval of the #22, #31 and #32 Main Transformers Evaluation Plans:

Respondent shall submit to the Department for approval, engineering plans and specifications for the #22, #31 and #32 main transformers secondary containment systems (the "#22, #31 and #32 Main Transformers Engineering Plans and Specifications"), specifying any work that may be required to ensure that the secondary containment systems are capable of containing any petroleum (transformer oil) release from each transformer.

The #22, #31 and #32 Main Transformers Engineering Plans and Specifications for required work shall include:

- i. The closure and discontinuance of the use of any stormwater disposal system included in the secondary containment systems;
- ii. Sufficient testing to confirm that the systems are structurally supported, impermeable, and have sufficient volume to contain the contents of #22, #31 and #32 main transformers and the likely amount of firefighting water that would be released in the event of a fire; and
- iii. If Respondent will retain the current (original) design of the secondary containment systems for #22, #31 and #32 main transformers then the capability and capacity of each secondary containment system shall be reviewed to determine whether it meets the current requirements under the Spill Prevention Control and Countermeasure Plan. This analysis shall be included in the #22, #31 and #32 Main Transformers Engineering Plans and Specifications.

The #22, #31 and #32 Main Transformers Engineering Plans and Specifications shall be certified and stamped by a New York State Licensed Professional Engineer. The terms, requirements, and conditions of the #22, #31 and #32 Main Transformers Engineering Plans and Specifications, duly approved by the Department, shall be an enforceable part of this Order on Consent.

G. Within thirty (30) days of the Department approval of the #22, #31 and #32 Main Transformers Engineering Plans and Specifications:

Respondent shall submit to the Department a copy of the final design for the #22, #31 and #32 main transformers secondary containment systems.

**SECONDARY CONTAINMENT SYSTEMS FOR #22, #31 AND #32 MAIN TRANSFORMER
SHALL BE COMPLETE AND CERTIFIED BY DECEMBER 31, 2012**

H. **By December 31, 2012:**

Respondent shall complete the secondary containment systems evaluation and repairs in accordance with the Department approved #22, #31 and #32 Main Transformers Engineering Plans and Specifications. Respondent shall also submit to the Department a letter of certification, stamped by a New York State Licensed Professional Engineer, that the secondary containment systems have been installed or repaired in accordance with the Department approved #22, #31 and #32 Main Transformers Engineering Plans and Specifications and an evaluation and certification that the secondary containment systems provide adequate secondary containment of petroleum spill events that could occur from the #22, #31 and #32 main transformers.

III. CHEMICAL BULK STORAGE

A. Within thirty (30) days of the Effective Date of this Order:

Respondent shall review Department Chemical Bulk Storage regulations; complete a compliance review of all registered tanks; and shall develop a checklist of regulations applicable to the Indian Point Nuclear Generating Facility. The checklist shall be developed for the purpose of allowing Respondent to provide annual updates as a part of the Spills Prevention Report update required pursuant to 6 NYCRR Section 598.1(k)(2)(vii) and Annual Inspection required pursuant to 6 NYCRR Section 598.7(c)(2)(v).

B. Within thirty (30) days of the Effective Date of this Order:

Respondent shall conduct inspections of tanks HMST-11 and HMST-12 pursuant to 6 NYCRR Section 598.7(d), and shall complete any required repairs. Respondent shall submit to the Department the results of the required testing, the inspection reports, and a certificate that such tank fully complies with all applicable laws and regulations.

C. Within thirty (30) days of the Effective Date of this Order:

Respondent shall determine the Expected Useful Life of each tank and associated piping, based upon existing inspection reports or additional inspections, and shall certify that information as a part of the Spill Prevention Report required pursuant to 6 NYCRR Section 598.1(k)(2)(vii), except Tank 008-2, which has been closed.

D. Within sixty (60) days of the Effective Date of this Order:

Respondent shall submit a plan to the Department for approval, to replace Tank 008-2 with another tank which shall include secondary containment meeting the requirements of 6 NYCRR Section 599.9 (the "Tank 008-2 Replacement Plan"). Piping shall not penetrate the secondary containment system and operating valves shall be installed on the piping between the tank and the secondary containment. The Tank 008-2 Replacement Plan shall be certified and stamped by a New York State Licensed Professional Engineer. The terms, requirements, and conditions of the Tank 008-2 Replacement Plan, duly approved by the Department, shall be an enforceable part of this Order on Consent.