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October 5, 2012

By Certified Mail

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Re: Clean Water Act, § 505 Notice of Intent to Initiate Citizen Suit for Violations at  
Pilgrim Nuclear Power Station, Plymouth, Massachusetts  
NPDES Permit No. MA 0000355

Dear Sir/Madam:

This is a Notice of Intent (“NOI”) to commence an action pursuant to the § 505 citizen suit provisions of the federal (“CWA” or “the Act”), 33 U.S.C. §§ 1365 (a)(1), (2), 1319(d), and § 1341, and 40 C.F.R. 135, after the expiration of 60 days of the date of this letter (NOI).

Complainants, as identified below, intend to bring an action against Entergy Nuclear Generating Company and Entergy Nuclear Operations, Inc. (“Entergy”),<sup>1</sup> owner and operator of the Pilgrim Nuclear Power Station (“PNPS”) alleging that Entergy has violated and continues to violate the CWA, 33 U.S.C. §§ 1311, 1312, 1341 and 1342 by unlawfully discharging pollutants to waters of the United States and by failing to comply with the terms of its National Pollutant Discharge Elimination System (“NPDES”) permit.

**Complainants will seek civil penalties against Entergy totaling \$831,325,000.00 for the violations as described with specificity in Exhibit 1 hereto, which is incorporated by reference herein.** Where indicated on Exhibit 1, the violations were determined based on Entergy’s mandatory reporting to the U.S. Environmental Protection Agency (“EPA”) in its monthly Discharge Monitoring Reports (“DMR”). Complainants will also seek injunctive relief requiring Entergy to comply with the Act, and fees, costs, and all other appropriate relief pursuant to 33 U.S.C. § 1365.

## **I. Law and Facts**

### **A. Law**

The CWA is a “bold and sweeping legislative initiative” with broad and ambitious goals.<sup>2</sup> The Act’s objective is to restore and maintain the chemical, physical and biological integrity of the Nation’s waters. 33 U.S.C. § 1251(a). To achieve this objective, Congress declared a national goal of totally eliminating discharges of pollutants into our waters by 1985, and an interim goal of making water fit for fish, wildlife and recreation wherever possible by July 1, 1983. 33 U.S.C. § 1251(a).

The CWA prohibits the discharge of pollutants to waters of the U.S. unless they are permitted by EPA under a NPDES permit. 33 U.S.C. §§ 1311(a), 1342. Discharges of pollutants that exceed effluent limits contained in a NPDES permit are unlawful. EPA is required to set conditions in NPDES permits that assure compliance with the Act, and may include conditions including data and information and reporting. §§ 1342(a)(1), 1342(b). The CWA says NPDES permits are for five-year terms, but they may be administratively extended pending the permit renewal process. 33 U.S.C. § 1342. Massachusetts is one of a few states without a delegated CWA program, and therefore EPA issues NPDES permits in Massachusetts subject to a state water quality certification

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<sup>1</sup> Under Massachusetts law and the terms of the sale of PNPS to Entergy by Boston Edison Co., Entergy is liable for violations of the CWA preceding its ownership and operation of PNPS. See, e.g., Massachusetts Department of Public Utilities Order, DTE 98-119/DTE 98-126 (1997), approving Boston Edison’s divestiture of PNPS which states that “Entergy will assume and indemnify Boston Edison against certain liabilities relating to the assets being sold, including unknown environmental liabilities and remediations other than off-site liabilities.” Order, Section III.A.1. See, e.g., *Milliken & Co. v. Duro Textiles, LLC*, 451 Mass. 547, 556 (2008) (successor is liable when it “expressly or impliedly assumes liability of the predecessor.”)

<sup>2</sup> *Dubois v. U.S.D.A.*, 102 F. 2d 1273, 1294 (1<sup>st</sup> Cir. 1996).

under § 1341(a)(5).<sup>3</sup> The NPDES permit may be suspended or revoked by EPA upon the entering of a judgment under the CWA that PNPS has been operated in violation of applicable provisions of the Act.<sup>4</sup>

## **B. Facts**

Entergy owns and operates a 715-megawatt nuclear power station on Cape Cod Bay in Plymouth, which began operating in 1972 under Boston Edison Company. In about 1999, Entergy acquired PNPS from Boston Edison Company. Since 1972, the cooling and service waters systems at PNPS have operated as a once-through cooling system, with Cape Cod Bay being the primary water source. The NPDES permit program governs the PNPS cooling water intake structure (“CWIS”) pursuant to CWA §1326(a) and (b). Entergy’s NPDES permit authorizes the discharge of pollutants to Cape Cod Bay from ten point source discharge locations at PNPS, sets effluent limits and standards and monitoring and reporting requirements, including a multi-part program for biological monitoring. 33 U.S.C. §§ 1311 and 1312.<sup>5</sup> Entergy’s NPDES permit constitutes both a NPDES permit and a discharge permit issued by DEP under the Massachusetts Clean Waters Act, as amended, M.G. L. c. 21, §§ 26-53.

EPA and Massachusetts jointly issued the first NPDES permit for PNPS in 1983. The permit was renewed and reissued in 1988 and in 1991 (the 1991 Permit). On August 30, 1994, EPA modified the 1991 permit through a formal notice and comment process (the 1994 Permit). The 1994 Permit was due to expire in 1996, at the end of the five-year term that started in 1991, but has been administratively extended by EPA for over sixteen years.<sup>6</sup>

The 1994 Permit is based on PNPS operating at a capacity that generates up to 655 megawatts. In 2003, Entergy increased PNPS’ operating capacity to 715 MW, a rate

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<sup>3</sup>EPA and DEP have a joint permit agreement governing the NPDES permit program. See, Agreement between EPA and Massachusetts Department of Water Pollution Control” (March 18, 1973). Massachusetts must certify to EPA that Entergy’s pollutant discharges to Cape Cod Bay under the NPDES will comply with effluent limits and standards under § 1311, and with other provisions of the Act. 33 U.S.C. § 1341.

<sup>4</sup> CWA § 1341(a)(5) states: “Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this Act [33 USCS §§ 1251 et seq.] that such facility or activity has been operated in violation of the applicable provisions of section 301, 302, 303, 306, or 307 of this Act [33 USCS §§ 1311, 1312, 1313, 1316, 1317].” By letter dated July 8, 1994, Massachusetts certified to EPA pursuant to the CWA § 1341 that PNPS operations conducted in a manner consistent with the 1994 Permit Modification will constitute compliance with the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53.

<sup>5</sup> EPA, 1984 Permit Fact Sheet, pg. 3; See also: Marine Ecology Studies Final Report, July 1969-December 1977, pg. II-1 (Introduction, part (A)) and NRC’s Generic EIS for License Renewal of Nuclear Power Plants, Supplement 29 regarding PNPS, July 2007, at Part 2.1.2 (PNPS NUREG 1437, Supplement 29).

<sup>6</sup> EPA contends that the NPDES permit remains in effect pursuant to administrative extension provisions of 40 C.F.R. § 122.6. See, Letters to Entergy from U.S. EPA, dated March 1, 1996 and October 25, 2004.

higher than authorized in the NPDES permit. The NPDES permit has not been updated to reflect the higher operating rate at PNPS.<sup>7</sup>

## **II. Complainants**

Each complainant is a citizen for purposes of the CWA, 33 U.S.C. § 1365(g), with standing to bring an action to protect his/her interest in restoring and maintaining the chemical, physical, and biological integrity of the waters of Cape Cod Bay. The Complainants' interests have been and are being affected by the CWA violations alleged in this NOI.

Complainant **Norman Pierce** has resided with his family at 166 Morgan Road in Plymouth, MA, about six miles from PNPS, since 1975. His phone number is 617-435-8872. He and his family use Cape Cod Bay for outdoor recreation, including swimming, walking along the beaches and scenic roads, boating, whale watching and other forms of nature observation, and fishing. Mr. Pierce and his family have an interest in consuming local fish and shellfish, and occasionally do so, but have concerns about the safety of the fish and shellfish due to Entergy's pollution of the Bay. Mr. Pierce has been active in outreach, organizing and educational efforts to ensure that PNPS does not harm human health and the environment. The violations of the CWA identified in this NOI harm Mr. Pierce's interests the scenic, aesthetic, and recreational qualities of Cape Cod Bay in the area near PNPS and his home, and his ability to enjoy locally harvested fish and shellfish. The monitoring and reporting violations identified in this NOI interfere with his ability to ensure that PNPS operations do not harm human health and the environment. The injuries to Mr. Pierce's interests will be redressed by a favorable court decision.

Complainant **Pine duBois** has lived with her family at 93 Elm St in Kingston, MA, approximately 8.5 miles from PNPS, since 1995. Her phone number is 781-585-2322. She and her family use Cape Cod Bay for outdoor recreation, including swimming, walking along the beaches and scenic roads, boating, nature observation, and fishing, and they enjoy eating local fish and shellfish. For over 25 years, Ms. duBois has been active in outreach, organizing and educational efforts with regard to preserving and protecting Cape Cod Bay and the Jones River, which is the largest river emptying into the Bay. She is executive director of the nonprofit Jones River Watershed Association (JRWA), whose mission includes protecting the Bay's marine aquatic life. Ms. duBois has researched and studied the negative environmental impacts of the violations alleged in this NOI. The violations of the CWA identified in this NOI harm Ms. duBois' interests in the scenic, aesthetic, and recreational qualities of Cape Cod Bay in the area near PNPS and her home, and her ability to enjoy locally harvested fish and shellfish. The monitoring and reporting violations identified in this NOI interfere with her ability to ensure that PNPS operations do not harm the Bay's marine aquatic resources. The injuries to Ms. duBois' interests will be redressed by a favorable court decision.

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<sup>7</sup> In May 2003, Entergy increased PNPS' power level from 1,998 thermal megawatts (MWt) to 2,028 MWt, an increase of 1.5%, which brought the station's annual generating capacity up to the current 715 MW from an original capacity of 655 MW.

Complainant **Theodore Bosen** lives at 69 Janebar Circle, Plymouth, MA, approximately nine miles from PNPS. His phone number is 508-888-8888. From 1985 to 1991, he and his family lived in Plymouth near Long Beach. From 1985 to the present, Mr. Bosen and his family have used portions of Cape Cod Bay for outdoor recreation, including swimming, walking along the beaches and scenic roads, boating, nature observation, and fishing. As a summer visitor through the 1970's and 80's, and much more frequently after moving to Plymouth permanently in 1985 through the fall of 1986, Mr. Bosen harvested and consumed shellfish from Warren Cove around the northerly side of the bluff from PNPS. After he learned that pollution from PNPS was being discharged near the area where he harvested shellfish, he stopped harvesting and consuming the shellfish and visiting the beach and coastal areas around PNPS due to his concerns about the impacts of the pollution. The violations of the CWA identified in this NOI harm Mr. Bosen's interests the scenic, aesthetic, and recreational qualities of Cape Cod Bay in the area near PNPS and his home, and his ability to enjoy locally harvested fish and shellfish. Since 1986, Mr. Bosen has been active in outreach, organizing and educational efforts to ensure that PNPS does not harm human health and the environment. The monitoring and reporting violations identified in this NOI interfere with his ability to ensure that PNPS operations do not harm the Bay's marine aquatic resources. The injuries to Mr. Bosen's interests will be redressed by a favorable court decision.

### **III. Violations**

Entergy has violated and continues to violate the CWA 33 USC §§1311(a), 1341, and/or 1342, by discharging and continuing to discharge pollutants into waters of the U.S. without a permit, and/or in violation of effluent standards or limits, and/or has failed and continues to fail to conduct monitoring and reporting as required by the 1994 Permit. EPA and Massachusetts have failed to redress these violations. Complainants will seek a civil penalty of \$25,000.00 per day for each of the violations set forth in Exhibit 1, pursuant to 33 U.S.C. § 1319.

Entergy's violations have resulted in discharges of pollutants that are harmful to the chemical, biological, and physical integrity of the waters of Cape Cod Bay. This includes the discharge of tolytriazole, oil and grease, and chlorine. Tolytriazole is a corrosion inhibitor that can harm marine environments and is regulated by the U.S. EPA.<sup>8</sup> Discharges of oil and grease and chlorine to water bodies can harm human health and the environment. Entergy has also discharged wastewater that has a pH level and

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<sup>8</sup> Tolytriazole is a corrosion inhibitor used to control the corrosion of copper alloys in the PNPS cooling-water systems. It can be considered a ubiquitous contaminant in the aquatic environment. *Marine Pollution and Human Health*, Issues in Environmental Science and Technology, Environ Sci Technol 2011 May 1; 45(9): 3858-61 21524137, Royal Society of Chemistry publishing, ed. By RE Hester, RM Harrison. These authors conclude that due to their physiochemical properties (i.e. low biodegradability and high hydrophobicity), corrosion inhibitors are not removed from sewage treatment plants, and coupled with their toxicity, pose a treat to estuarine and coastal environments.

temperature that are in excess of regulatory limits intended to protect water quality. In addition, Entergy has failed to comply with monitoring and reporting requirements that are in place in order to enable the public and regulators to determine whether Entergy is complying with the law.

#### **A. Ongoing discharges of tolytriazole without a permit and in violation of permit condition**

On 220 days since June 9, 2003, Entergy<sup>9</sup> violated the CWA §§ 1311(a), 1341, and 1342, and the 1994 Permit, Part (A)(1)(f), (p. 2), by discharging effluent containing the pollutant tolytriazole into Cape Cod Bay, as shown on Exhibit 1, Section A.

Entergy does not have a NPDES permit that allows the discharge to Cape Cod Bay of tolytriazole, a pollutant within the meaning of the Act. The 1994 Permit, Part (A)(1)(f), sets a zero discharge limit for tolytriazole. It states, “[t]here shall be no discharge of treated or untreated chemicals which result from cleaning or washing of condensers or equipment wherein heavy metals may be discharged.” The discharge of tolytriazole results from cleaning or washing of condensers wherein heavy metals may be discharged.<sup>10</sup>

#### **B. Discharge of TSS and oil and grease from unpermitted storm drain**

On 21 days since October 1995, Entergy violated the CWA §§1311(a) and 1341 by discharging effluent containing pollutants to Cape Cod Bay through an unpermitted storm drain as shown on Exhibit 1, Section B. In a 1995 letter to EPA dated October 25, 1995, Boston Edison identified this storm drain as unpermitted and admitted that the storm drain discharges pollutants, identified as total suspended solids (TSS) and oil and grease, like the discharges from the other on-site storm drains, to Cape Cod Bay.<sup>11</sup>

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<sup>9</sup> Complainants refer to Entergy as the “violator” even for violations occurring prior to 1999, when Entergy acquired PNPS from Boston Edison Company. See Footnote 1 for Entergy’s assumption of liability for these violations.

<sup>10</sup> By letter dated June 30, 1995 (the 1995 letter), Exhibit 2 hereto, EPA purported to “modify” the 1994 Permit to allow PNPS to discharge tolytriazole, but this action violated the CWA and was not a minor permit modification under 40 CFR § 122.63. EPA was required to issue a draft permit for public notice and comment but failed to do so. See, 40 CFR § 122.62. Moreover, even if the 1995 letter is a valid permit modification, Entergy has failed to demonstrate compliance with the tolytriazole effluent limits EPA purported to set. EPA purported to set effluent limits for tolytriazole in the 1995 letter. (An “initial” tolytriazole concentration limit of 20 mg/l, a “final” discharge concentration of 2 mg/l, and a “worst case scenario,” effluent limit of 2.35 mg/l at a volume of 200 gallons per minute (GPM) of tolytriazole.)

<sup>11</sup> The 21 violations are calculated as follows. An October 25, 1995 Boston Edison letter states there is an unpermitted storm drain located “at the boat launch between storm drain Outfalls 006 and 007” that “drains a small portion of the facility which is similar to the drainage areas for Outfalls 004, 005, 006, and 007. Stormwater runoff from the miscellaneous outfall is expected, therefore, to be similar to runoff from the other four outfalls.” October 25, 1995 Letter, p. 3, Complainants’ Exhibit 3. According to Entergy DMRs and the 1994 permit, Outfalls 004, 005, 006 and 007 discharge effluent containing the pollutants total suspended solids (TSS) and oil and grease. 1994 Permit, p. 12, Part A(7). Therefore, Entergy has admitted that the unpermitted storm drain discharges effluent containing these same pollutants. See also, April 1999

These violations are ongoing and occur whenever there is a storm event that results in discharge of effluent containing pollutants through the unpermitted storm drain to Cape Cod Bay.

### **C. Ongoing violation of chlorine (TRO) limit for condenser cooling water discharge at Outfall 001**

Entergy violated the CWA § 1342 and the 1994 Permit, Part (A)(1)(a)(1), (p. 2), by exceeding the maximum daily effluent limit of 0.1 mg/l for total residual oxidant (TRO) at Outfall 001 on the three days identified in Exhibit 1, Section C. Entergy shows an ongoing pattern of noncompliance with this effluent limit.<sup>12</sup>

### **D. Violation of chlorine (TRO) limit for service water discharge at Outfall 010**

Entergy violated the CWA § 1342 and the 1994 Permit, Part (A)(5)(a) (p. 10), by exceeding the maximum daily effluent limit of 1.0 mg/l for TRO at Outfall 010 on the 47 days identified in Exhibit 1, Section D.<sup>13</sup>

The 1994 Permit TRO effluent limits for Outfall 010 are 0.50 mg/l average monthly and 1.0 mg/l daily maximum. Entergy's DMRs report eight daily violations of the average monthly and daily maximum limits between May 2001 and July 20, 2011. Further, for at least 39 months between December 1996 and April 2000, Entergy's DMRs simply state that "periodically total residual chlorine exceeded permit requirements prior to dilution" at Outfall 010. Each of the 39 months has been counted as only one daily violation, and is combined with the eight individual days of violation for a total of 47 days.

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DMR ("EPA was contacted to remind them that a small miscellaneous yard drain noted in the 1995 permit application is not covered in the existing permit..."). Further, Entergy's DMRs show that grab samples were collected twice per year from storm drain Outfalls 004, 005, 006, and 007 "within the first hour of the start of a significant storm event" on 21 occasions between 1997 and November 2010. Therefore, on these same 21 occasions, there were also discharges of effluent containing pollutants from the unpermitted storm drain, according to Entergy's admissions. See, Exhibit 1, Part B, for the months in which Entergy's DMRs show discharges of effluent containing pollutants from storm drains 004 through 007.

<sup>12</sup> The condenser cooling water discharge from Outfall 001 (1994 Permit, p. 6) is the largest of the PNPS point source discharges to Cape Cod Bay. The 1994 Permit allows a discharge limit of 510 million gallons a day (mgd) daily maximum, and 447 mgd average monthly volume limit. There is no real time flow monitor to document the actual amount of condenser cooling water discharged to Cape Cod Bay from Outfall 001; the 1994 Permit allows PNPS to estimate the flow "from pump capacity curves and operational hours." 1994 Permit, Part (A)(2)(a). *Entergy has reported the same daily maximum flow of 446.4 mgd in every monthly DMR for over a decade, regardless of the hours of operation in any given month, raising questions about the accuracy of this measurement.*

<sup>13</sup> The 1983 Permit established far more stringent effluent limits of .25 mg/l average monthly and .5 mg/l maximum daily TRO at Outfall 010. Even with the relaxed effluent limits, Entergy still shows a pattern of noncompliance with this permit condition.

**E. Ongoing violations of monitoring and reporting requirement for pH level in condenser cooling water discharge at Outfall 001**

Entergy violated the CWA § 1342 and the 1994 Permit, Part (A)(2)(a), by failing to monitor and report the pH of the condenser cooling water effluent discharged from Outfall 001, on 6,514 occasions since 1994, as identified in Exhibit 1, Section E. The pH of the condenser cooling water discharged from Outfall 001 “shall not vary by more than .5 standard units from that of the intake water.” 1994 Permit, part (A)(2)(a), (p. 6). The pH standard must be met at all times when the cooling water effluent is being discharged from Outfall 001. *Id.* Entergy has failed and continues to fail to monitor and report the discharge from Outfall 001 in a manner that establishes that the pH of the discharge from does not vary more than .5 standard units from that of the intake water.

**F. Ongoing violations of monitoring and reporting requirement for pH of thermal backwash discharges from Outfall 002**

Entergy has violated the CWA § 1342 and the 1994 Permit, Part (A)(3)(c), (p. 8), by failing to monitor and report the pH of the thermal backwash effluent discharged from Outfall 002 on 41 occasions since 2001, as identified in Exhibit 1, Section F.<sup>14</sup>

Under the 1994 Permit, Part (A)(3)(p. 8), the thermal backwash discharge pH “shall not vary by more than .5 standard units from that of the intake water.” Entergy’s DMRs state that the thermal backwash meets the pH standard, but fail to provide documentation or data to show that this is in fact the case, and thus the monitoring and reporting is inadequate. Entergy has violated and continues to violate Part (A)(3), (p. 8), by failing to monitor and report the pH of the effluent and that of the intake water to determine whether the pH varies by more than .5 standard units during thermal backwash operations.

**G. Ongoing Violations of monitoring and reporting requirements for pH of intake screen wash (fish sluice water) discharge at Outfall 003**

Entergy has violated the CWA § 1342 and the 1994 Permit, Part (A)(4)(e), (p. 9), by failing to monitor and report the pH of the intake water and effluent discharged from Outfall 003, on the 2,793 occasions identified in Exhibit 1, Section G.<sup>15</sup>

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<sup>14</sup> Three to five times per year, PNPS is reduced to 50% power and a thermal backwash is conducted to control biological fouling. During the backwash, water is heated to about 105 degrees F and two of the four traveling screens on the intake structure are rotated in reverse, allowing heated, non-chlorinated seawater from the condensers to flow back over the screens and to the intake embayment. The treatment is maintained for about 35 minutes. Nuclear Regulatory Commission, Supplemental Environmental Impact Statement, PNPS, Vol. 29, NUREG-1437, July, 2007, § 2.1.3, p. 2-11.

<sup>15</sup> Prior to water flowing through either the cooling water pumps or the service water pumps, it passes through 10-ft wide screens that are intended to prevent debris and aquatic organisms from being entrained in the cooling or service water systems. The screens are washed when they are in operation by using pressure hoses to remove the trapped organisms from the screens. Impinged fish are washed into a fish-return sluiceway that discharges to Cape Cod Bay.” According to the 2007 EIS, impingement sampling



The effluent limit for the Intake Screen Wash (Fish Sluice Water) at Outfall 003 “shall not vary by more than .5 standard units from that of the intake water.” 1994 Permit, Part (A)(4)(e). The pH standard must be met at all times when the effluent is being discharged from Outfall 003. Entergy failed and continues to fail to monitor and report the pH of the intake water to establish that the Intake Screen Wash effluent discharged through Outfall 003 does not vary by more than .5 standard units from the intake water.

#### **H. Ongoing violation of monitoring and reporting for pH of storm drain discharges at Outfalls 004, 005, 006 and/or 007**

Entergy has violated the CWA § 1342 and the 1994 Permit, Part (A)(7)(f), (p.12), on 21 days since 1994, by failing to properly monitor and report the pH level of discharges from storm drain Outfalls 004, 005, 006, and/or 007, as identified in Exhibit 1, Section H.

Discharges from Outfalls 004, 005, 006, and/or 007 must be monitored twice per year, during April and September and “[t]he pH shall not be less than 6.0 standard units nor greater than 8.5 standard units, or not more than .2 standard units outside the naturally occurring range.” 1994 Permit, Part (A)(7)(f). Entergy has failed to monitor and report and continues to fail to monitor the pH of the discharges to show that these pH requirements are being met.

Entergy has also violated and continues to violate the monitoring and reporting requirements of the 1994 Permit, Part (A)(7)(f), by failing to report the ambient pH of the Cape Cod Bay receiving waters to determine if the pH in the effluent discharged to the Bay from Outfalls 004, 005, 006, and/or 007 meets the .2 delta standard.

#### **I. Ongoing violation of monitoring and reporting requirements for temperature of condenser cooling water discharge at Outfall 001**

Entergy has violated the CWA § 1342 and the 1994 Permit, Part (A)(1)(g), (p. 3) on 6,545 days since 1994 by failing to properly monitor and report the temperature of condenser cooling water discharge, as identified in Exhibit 1, Section I.

The rate of change in temperature of the condenser cooling water discharge from Outfall 001 may not exceed (1) a 3-degree Fahrenheit rise or fall for any sixty-minute period during normal steady state plant operation, and (2) a 10-degree Fahrenheit change during any sixty-minute period of normal load cycling, subject to certain exemptions. 1994 Permit, Part (A)(1)(g). Entergy has failed and continues to fail to monitor and report the temperature in a manner that shows that the condenser cooling water meets the temperature limit. Entergy’s DMRs show only a maximum daily temperature for the condenser cooling water discharge, which fails to meet the monitoring and reporting conditions in the 1994 Permit.

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occurs three times each week, and a screen wash “is scheduled for eight hours prior to each of the three sampling events.” NUREG 1437, Supp. 29, pg. 2-10 (2007 EIS).

**J. Ongoing violation of monitoring and reporting requirements for temperature of intake screen wash (fish sluice water) discharge at Outfall 003**

Entergy has violated the CWA § 1342 and the 1994 Permit, Part (A)(4)(b), (p.9), by failing to properly monitor and report the temperature of the discharge on 2,793 occasions since 1994, as shown on Exhibit 1, Section J. The temperature of the discharge from Outfall 003 “shall at no time exceed the temperature of the intake water used for this discharge.” Entergy failed to monitor and report the temperature of the intake water to determine whether the discharge from Outfall 003 was the same as that of the intake water.

**K. Ongoing violation of monitoring and reporting requirements for chlorine (TRO) in condenser cooling water discharge at Outfall 001**

Entergy has violated the CWA, § 1342 and the 1994 Permit, Part (A)(2)(a), (p. 6), by failing to conduct continuous chlorine testing of the condenser cooling water discharged at Outfall 001 (510 mgd maximum volume)<sup>16</sup> on 2,154 occasions from at least August 26, 1998 to the present, as shown on Exhibit 1, Section K.

Entergy’s DMRs report 2,154 days of chlorination of the condenser cooling system for 2 hours per day between January 1, 2002 and July 31, 2012. The DMRS fail to identify the specific day of chlorination.<sup>17</sup> Pursuant to the 1994 Permit, Part (A)(2)(a), Entergy was required to have conducted continuous chlorine testing on each of the 2,154 days that the condenser cooling water was chlorinated and discharged to Cape Cod Bay via Outfall 001.

**L. Ongoing violation of monitoring and reporting requirements for chlorine (TRO) in service cooling water discharge at Outfall 010**

Entergy has violated and continues to violate the CWA § 1342 and the 1994 Permit, Part (A)(5)(a), (p.10), by failing to conduct continuous chlorine testing on the service cooling water discharged from Outfall 010 on 5,086 occasions from 1998 to the

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<sup>16</sup> While the EPA purported to modify these sampling procedures via letter dated August 26, 1998, this modification was invalid because it was not a “minor modification” under 40 CFR § 122(a) - (h) and required public notice and comment. See, Exhibit No.4.

<sup>17</sup> From September of 1998 through November of 2001, Entergy’s DMRs either state that chlorination of condenser cooling water at outfall 001 occurred “when intake screens were in service” or completely fail to state the total number of days of chlorination. This makes it impossible to determine the actual number of days of violation of this permit condition. When the months for which data is available are averaged by year, PNPS chlorinates its cooling water between 14 to 26 days per month. According to the EIS, hypochlorination events take place during spring, summer and fall when chlorination events occur for up to two hours per day. On information and belief, it is very likely that there were hypochlorination events during the spring, summer, and fall of the following years: 1998, 1999, 2000, and 2001.

present, as identified on Exhibit 1, Section L.<sup>18</sup>

The 1994 Permit requires Entergy to conduct continuous chlorine testing on each of the 5,086 days that the plant service cooling water was chlorinated and discharged via Outfall 010. Entergy's failure to conduct continuous chlorine testing on each day that the service cooling water was chlorinated (which is and was continuously chlorinated) is a violation of the 1994 Permit, Part (A)(5)(a).

**M. Ongoing violation of permit condition requiring an approved Annual Environmental Monitoring Program carried out under the oversight of the PATC**

From January 1, 2002 to the present, Entergy has been operating PNPS without an approved environmental monitoring program, in violation of the CWA § 1342 and the 1994 Permit, Part (A)(8)(b) through (e), (p.13), for a total of 3,865 days of violation as identified in Exhibit 1, Section M.

The 1994 Permit states that Entergy, "shall conduct such studies and monitoring as are determined by the EPA and the State to be necessary to evaluate the effect of the operation of the Pilgrim station on the balanced, indigenous community of shellfish, fish, and wildlife in and on Cape Cod Bay." *Id.* at (A)(8)(b). In 1990, an Environmental Monitoring Program was approved by EPA and the state, and any revisions "which may be warranted by the availability of new information" must be approved by EPA and the state annually. *Id.* at (A)(8)(b)-(e). This monitoring program, once approved "becomes an integral element of this permit." *Id.* at (8)(a)(c).

The 1994 Permit further requires Entergy to "carry out the monitoring program under the guidance of the Pilgrim Technical Advisory Committee." *Id.* at 8(d).<sup>19</sup> The PATC is an advisory committee established to ensure the Pilgrim marine studies have the benefit of qualified, outside scientific and technical advice, and are responsive to regulatory agencies. 1991 and 1994 Permit, Attachment "A," Part (I)(A) and 1994 Permit, Part (A)(8)(d). The PATC met as a whole body twice annually for a total of 93 meetings, documented between 1972 and 1999. The PATC has not met since January 3, 2000, soon after Entergy took ownership of PNPS.

Since 2002, Entergy has made unilateral changes to the last Environmental Monitoring Program that was approved by EPA and DEP in 2002. Although Entergy has submitted identical annual environmental programs to EPA and DEP every year since 2002, there is no record or evidence of approval by the PATC, EPA, or the state of any

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<sup>18</sup> The PNPS service cooling water system is continuously chlorinated for macroinvertebrate control. The monthly DMRs list "continuous" as the required "frequency of analysis" for TRO at Outfall 010. (See, Jan. 2012 DMR for Outfall 010). Entergy's hand-written data on the same DMRs admits that grab samples are performed instead.

<sup>19</sup> The PATC is also referred to as the "Pilgrim Administrative-Technical Committee." See, e.g., Marine Ecology Monitoring plan, Attachment A to NPDES permit, para. IA.

annual program since 2002. This violation of the 1994 Permit, Parts (A)(8)(b)-(e) is ongoing.

**N. Ongoing violation of permit condition requiring collection and reporting of benthic monitoring data**

From 2000 and continuing to the present, Entergy has violated and continues to violate the CWA § 1342 and the 1994 Permit, parts (A)(1)(h), (p. 3), and (A)(8)(d), (p. 13) and Part I.D. of the Marine Environmental Monitoring Plan by failing to collect and report data on benthic monitoring two times a year, in March and September, for a total of 23 violations (2 per year 2000 through 2011, and March, 2012), and by failing to conduct transect monitoring 4 times per year, in March, June, September and December, for a total of 46 violations (4 per year 2000-2011, and March and June, 2012), as shown in Exhibit 1, Section N (69 total violations).

The 1990 Marine Environmental Monitoring Program, Part I.D, Attachment A to the 1994 Permit and incorporated by reference via Parts (A)(1)(h) and (A)(8)(d) states,

The benthic flora and fauna will be monitored at three sampling stations at depths of approximately 10 feet (MLW) (Figure 1). The dominant flora and fauna in each plot are recorded and quantitative samples are collected from rock surfaces. Sampling will continue two times a year (March and September) to determine power plant-related effects.

In addition, transect monitoring to map the extent of stunted and denuded areas immediately off the discharge canal will be continued 4 times a year (March, June, September and December) in 1990.”

**O. Ongoing violation of permit conditions for protection of fish from gas bubble disease**

Entergy has violated the CWA § 1342 and the 1994 Permit, Parts (A)(2)(e) and (f), (p.7), on 2,989 days since April 2000, by failing to maintain a barrier net near to the terminal end of the discharge canal for the protection of menhaden and other finfish, and/or by failing to monitor and report dissolved nitrogen saturation levels in the discharge canal at the point of discharge, as shown on Exhibit 1, Section O.

The 1994 Permit, Part (A)(2)(e), (p.7), requires that “[t]he permittee shall maintain a barrier net as near to the terminal end of the discharge canal as good engineering practice will allow. Except for changing nets or other barrier maintenance, it shall prevent fish entry into the canal from April 1 to November 30 each year when the plant is operating.” Part (A)(2)(f) requires that “[i]f EPA or the State determine that the physical barrier net required by Subparagraph “e” above does not effectively prevent the mortality of menhaden or other finfish, the permittee shall, from the date of said determination, maintain an average dissolved nitrogen saturation level of less than 115%.”

Entergy has failed, and continues to fail, to maintain the barrier net during the period from April 1 to November 30 in each year from 2000 to 2011, and from April 1, 2012 to the present, and has failed to monitor and report that the average dissolved nitrogen saturation is less than 115% during that time period, in violation of the 1994 Permit, Parts (A)(2)(e) and (f).

#### **IV. Relief Requested**

The Complainants will seek mandatory, prohibitory and prospective injunctive relief ordering compliance, civil penalties, fees and costs, and all other appropriate relief available under the CWA §§ 1319 and 1365(a) and other applicable statutes to redress past, ongoing, and prospective violations of the Act, including but not limited to:

- A. Civil penalties of \$25,000.00 per day for each violation described in Exhibit 1 hereto;
- B. An order requiring Entergy to comply with effluent standards and limits in the 1994 Permit for PNPS, and with its monitoring and reporting requirements;
- C. An injunction requiring Entergy to cease and desist its unpermitted discharges into Cape Cod Bay; and
- D. Other relief that is just and proper.

The Complainants are represented by counsel as identified below. For questions regarding this NOI, please contact Margaret E. Sheehan, Esq., at 508 259 9154.

Very truly yours,

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Senator Therese Murray  
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Representative Lori Ehrlich  
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Representative Anne Gobi  
Representative Frank Smizik  
Representative Kate Hogan  
Representative Randy Hunt  
Representative Dan Winslow  
Town of Plymouth, Board of Selectmen  
Town of Plymouth, Nuclear Matters Committee  
Town of Duxbury, Nuclear Matters Committee