

UNITED STATES DISTRICT COURT
DISTRICT OF NEW HAMPSHIRE

ORIGINAL	
N.H.P.U.C. Case No.	14 - 238
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Witness	CLF
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CONSERVATION LAW FOUNDATION, INC.,)

Plaintiff,)

v.)

PUBLIC SERVICE COMPANY OF)
NEW HAMPSHIRE,)

Defendant.)
_____)

Civil Action No. 11-353-JL

**FIRST AMENDED
COMPLAINT**

I. INTRODUCTION

1. This is a citizen suit, brought under Section 304 of the Clean Air Act (“CAA”), as amended, 42 U.S.C. § 7604. Plaintiff Conservation Law Foundation, Inc. (“CLF” or “Plaintiff”) seeks a declaratory judgment, injunctive relief, the imposition of civil penalties, and the award of costs, including attorney and expert witness fees, for violations of the CAA by Public Service Company of New Hampshire (“PSNH” or “Defendant”) at the Merrimack Station power plant located in Bow, New Hampshire (“Merrimack Station”).

2. On numerous occasions, Defendant PSNH modified and thereafter operated its coal-fired electric generating units at Merrimack Station without first obtaining necessary CAA permits authorizing those modifications and without installing required emissions controls to address Merrimack Station’s increased emissions of nitrogen oxides, sulfur dioxide, particulate matter, and/or other pollutants. PSNH also has repeatedly failed to comply with certain requirements of CAA permits issued to it.

3. This case seeks to vindicate the public interest in a legally compliant and fairly administered permitting process for modifications to major sources of air pollutants in New

Hampshire. That permitting process is part of the foundation of Congress's efforts to curb the adverse impacts of aging coal-fired power plant emissions on public health and the environment. PSNH's repeated and ongoing failure to comply with CAA permitting requirements imperils those efforts, resulting in illegal emissions that are degrading the quality of air breathed by millions of Americans, including CLF members and New Hampshire residents.

4. PSNH is a subsidiary of Northeast Utilities, a publicly-traded Fortune 500 energy company. PSNH owns and operates Merrimack Station and its two coal-fired steam turbines. Merrimack Unit One ("MK1") has been in operation for fifty-one years, since 1960. Merrimack Unit Two ("MK2") has been in operation for forty-three years, since 1968. As one of the few regulated electric utilities that own power plants in New England, PSNH has the ability to generate its own power and pass on the costs of operating Merrimack Station and its other generating units to its New Hampshire ratepayers, even when cleaner power is available for purchase at a lesser cost from the regional wholesale markets. As a result, PSNH's energy service rates—currently the highest in the state—are driving large customers away, leaving its default service customers—primarily residential ratepayers—to pay escalating costs.

5. In recent years, PSNH has spent hundreds of millions of dollars on renovations to extend the life of Merrimack Station, increasing with every dollar the value of its generation assets—which provides the basis for calculating PSNH's nearly ten percent guaranteed return on equity. PSNH has elected to pursue this questionable course to bolster its bottom line, although the capital costs will exacerbate increases in its energy service rates for its ratepayers and further hasten the departure of its large customers. PSNH has misleadingly marketed its renovation program as a "Clean Air Project" intended to reduce air pollution, all the while undertaking

modifications that will increase Merrimack Station's emissions and seeking to avoid or bypass required regulatory review of its activities under the CAA.

6. Merrimack Station is among the most polluting power plants in New England. In 2010, PSNH reported that the plant emitted 33,248 tons of sulfur dioxide ("SO₂"), 3,414 tons of nitrogen oxide ("NO_x"), and more than 2.8 million tons of carbon dioxide (a greenhouse gas). Merrimack Station typically is the single largest point source of carbon dioxide in New Hampshire. In addition, the plant emitted 160 pounds of mercury (a powerful neurotoxin) compounds in 2009.

7. SO₂ and NO_x emissions have well-established significant adverse impacts on public health and the environment. Such emissions also contribute to the formation in the atmosphere of secondary particulate matter that is 2.5 microns in diameter or smaller ("PM2.5"). The scientific consensus is that PM2.5 is harmful to human health. PM2.5 causes decreased lung function, increased prevalence of respiratory symptoms, worsened respiratory infections, heart attacks, and the risk of early death. NO_x also is a precursor to ozone, another pollutant that poses significant health risks for children and adults with pulmonary conditions.

8. PSNH repeatedly has failed to comply with CAA permitting requirements applicable to Merrimack Station, including requirements that are intended to ensure appropriate controls on its emissions of the pollutants described above. Beginning in 2006, PSNH installed and operated sorbent and/or activated carbon injection equipment, yet never obtained the necessary CAA permits. PSNH failed to obtain required CAA permits in connection with modifications it made to MK2 in 2008, and similarly failed to obtain such permits for the work it undertook at that unit in 2009. Each of those modifications resulted in increased emissions.

9. Notwithstanding its failure to obtain required permits for those modifications, the modifications undertaken by PSNH have also resulted in significant net emissions increases, for which PSNH was required to comply with the best available control technology (“BACT”) requirements under the CAA’s Prevention of Significant Deterioration (“PSD”) preconstruction review program, *see* CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4),¹ and/or Lowest Achievable Emissions Rate (“LAER”) requirements under the CAA’s Nonattainment New Source Review (“NA-NSR”) preconstruction review program, *see* CAA § 173(a)(2), 42 U.S.C. § 7503(a)(2).²

10. PSNH’s modifications to MK2 in 2008 and 2009 also increased the maximum hourly pollutant emissions at that unit, triggering emissions limitations and other requirements under the CAA’s New Source Performance Standards (“NSPS”) program, with which PSNH has failed to comply.

11. Moreover, PSNH also has violated existing permits and failed to report those violations as the permits require. In June 2009, PSNH admitted, in response to an information request from the New Hampshire Department of Environmental Services (“DES”), it had violated, on multiple occasions, the terms of two permits governing the operation of electrostatic precipitators on MK1 and MK2. Not only did PSNH operate its coal-fired boilers without fully

¹ BACT is defined under the CAA as “an emissions limitation (including a visible emission standard), based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. . . .” 40 C.F.R. § 52.21(b)(12). *See also* N.H. Admin. Rules Env-A (“Env-A”) 101.13 (1990).

² LAER is defined under the CAA as “that rate of emissions which reflects—(A) the most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or (B) the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.” CAA § 171(3)(A) & (B), 42 U.S.C. § 7501(3)(A) & (B). *See also* Env-A 101.55 (1990).

functioning pollution controls, it failed to report those permit violations to DES, despite a requirement set forth in the permits that it do so.

II. JURISDICTION AND VENUE

12. This Court has subject matter jurisdiction over the claims set forth in this complaint pursuant to 42 U.S.C. §§ 7604(a)(1) and 7604(a)(3), 28 U.S.C. § 1331, and 28 U.S.C. §§ 2201 and 2202. The relief requested by the plaintiff is authorized by 42 U.S.C. §§ 7413 and 7604 and 28 U.S.C. §§ 2201 and 2202.

13. Pursuant to Section 304(b)(1)(A) of the CAA, 42 U.S.C. § 7604(b)(1)(A), and 40 C.F.R. Part 54, Plaintiff notified Defendant of its violations of the CAA and of Plaintiff's intent to sue under the CAA by letter dated April 8, 2011, which was sent to Defendant via certified mail (the "First Notice Letter"). Pursuant to the same authorities, Plaintiff notified Defendant of further violations of the CAA and of Plaintiff's intent to sue under the CAA by letter dated March 28, 2013, which was sent to Defendant via certified mail (the "Second Notice Letter"). A true and accurate copy of the First Notice Letter is attached as **Exhibit A**, and a true and accurate copy of the Second Notice Letter is attached as **Exhibit B**. Plaintiff also sent copies of the First and Second Notice Letters to the Administrator of the United States Environmental Protection Agency ("EPA"), the Regional Administrator of EPA Region I, the Commissioner of the New Hampshire Department of Environmental Services ("DES"), the Governor of New Hampshire, and the Registered Agent of PSNH.

14. The original version of this Complaint was filed more than sixty days after the Plaintiff mailed Defendant the First Notice Letter. Leave to file this First Amended Complaint was sought more than sixty days after Plaintiff mailed Defendant the Second Notice Letter. The CAA violations complained of in the First and Second Notice Letters are of a continuing nature,

are ongoing, or are reasonably likely to recur. Defendants remain in violation of the CAA. As of the filing of this Complaint, neither EPA nor New Hampshire has commenced an enforcement action to redress the violations identified in the First and Second Notice Letters.

15. Venue is proper in the District of New Hampshire pursuant to 42 U.S.C. § 7604(c)(1) and 28 U.S.C. § 1391(b)(2) because the facility and the violations that are the subject of this complaint are located in New Hampshire.

16. Pursuant to 42 U.S.C. § 7604(c)(3), a copy of the original Complaint in this action was simultaneously served upon the Attorney General and the Administrator of EPA. Should this First Amended Complaint be accepted for filing in this action, a copy will immediately be served upon the Attorney General and the Administrator of EPA.

III. PARTIES

17. Plaintiff, CLF, is a nonprofit, member-supported organization incorporated under the laws of Massachusetts with an office at 27 North Main Street, Concord, NH, 03301, and a principal place of business at 62 Summer Street, Boston, MA, 02110. CLF is a regional organization with more than three thousand members, including more than four hundred in New Hampshire, and is dedicated to protecting New England's environment. CLF has a long history of working to reduce the harmful air emissions of coal-fired and other fossil-fuel fired power plants through enforcement of the CAA. CLF members use and enjoy New England's and New Hampshire's natural resources for hiking, camping, fishing, sightseeing, and other recreational and aesthetic purposes.

18. CLF meets the definition of a "person," pursuant to section 302(e) of the CAA, 42 U.S.C. § 7602(e), who may commence an action under section 304(a) of the CAA, 42 U.S.C. § 7604(a). CLF sues on behalf of itself, its individual members who live in the vicinity of and

downwind of the plant, and on behalf of its membership generally. CLF members have suffered, and will continue to suffer, actual and threatened injury to their health and welfare due to the violations of the CAA, the New Hampshire State Implementation Plan (“N.H. SIP”), and the state permits issued by New Hampshire pursuant to the CAA and the N.H. SIP described herein. CLF members are exposed to, and threatened with exposure to, particles and other pollution from Merrimack Station. As a result, CLF members suffer from, and are at increased risk of, a variety of adverse health effects from air pollution, including particulate matter (“PM”), that are attributable to Merrimack Station.

19. CLF and its members also have a strong interest in ensuring agency action is consistent with regulatory requirements; when permitting requirements are not followed, CLF members have been deprived of the opportunity to review and comment publicly on the full range of project impacts that will affect their interests, as set forth above.

20. The acts and omissions alleged herein expose CLF members to harmful pollution that threatens their health and welfare, interferes with their use and enjoyment of property and the surrounding areas, denies them protection of their health and well-being guaranteed by the CAA, the N.H. SIP, and permits issued under these authorities, and negatively impacts their aesthetic and recreational interests. The relief requested herein will redress these injuries.

21. Defendant PSNH is a corporation formed under the laws of New Hampshire with a principal office located at 780 N. Commercial Street in Manchester, NH, 03101. PSNH is a subsidiary of Northeast Utilities and the owner and operator of Merrimack Station.

IV. STATUTORY BACKGROUND

National Ambient Air Quality Standards

22. The purpose of the CAA is the protection and enhancement of the Nation's air resources to promote the public health and welfare and the productive capacity of its population. CAA, § 101(b)(1), 42 U.S.C. § 7401(b)(1).

23. The CAA requires EPA to establish national ambient air quality standards ("NAAQS") that are, "allowing an adequate margin of safety, requisite to protect the public health," and that are "requisite to protect the public welfare," CAA § 109(b), 42 U.S.C. § 7409(b), and mandates the use of certain emission control technologies to limit emissions of pollutants that EPA has determined "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." CAA § 108(a)(1)(A), 42 U.S.C. § 7408(a)(1)(A).

24. Every state must develop a plan to implement, maintain, and enforce the NAAQS. CAA, § 110(a), 42 U.S.C. § 7410(a).

25. Each such state implementation plan ("SIP") must include provisions to prevent construction of new or modified sources that would interfere with attainment or maintenance of the NAAQS. CAA, § 110(a)(2)(C), 42 U.S.C. § 7410(a)(2)(C).

26. New Hampshire has adopted the N.H. SIP to fulfill its obligations under the CAA, *see* 40 C.F.R. §§ 52.1520 and 52.1525, and those portions of the N.H. SIP that EPA has approved are federally enforceable by EPA or private attorneys general in citizen suits.

Preconstruction Permit Requirements for Modifications that Increase Emissions by Any Amount

27. The CAA defines major emitting facility to include certain "stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any

air pollutant [including] fossil-fuel fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input.” CAA § 169(1), 42 U.S.C. § 7479(1).

28. The CAA and the federally enforceable N.H. SIP prohibit construction of a new or modified major emitting facility of air pollution without obtaining a permit prior to beginning construction.

29. The CAA mandates that each SIP:

(A) include enforceable emission limitations and other control measures, means, or techniques . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter; [and]

(C) include a program to provide for the enforcement of the measures described in subparagraph (A) [above] and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter.

CAA § 110(a)(2), 42 U.S.C. § 7410(a)(2).

30. The term “construction” is defined under the CAA to include any “modification,” which in turn is defined as “any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.” CAA § 169(2)(C), 42 U.S.C. § 7479(2)(C) (incorporating definition of modification set forth at CAA § 111(a)(4), 42 U.S.C. § 7411(a)(4)); CAA § 171(4), 42 U.S.C. § 7501(4) (same, for purposes of CAA requirements in nonattainment areas).

31. The N.H. SIP applies the same definition of “modification.” *See* N.H. Admin. Rules Env-A (“Env-A”) 101.57 (1990) (defining “modification,” as “any physical change in, or change in the operation of, a stationary source or device which increases the amount of a specific

air pollutant emitted by such source or device, or which results in the emission of any additional air pollutant”).

32. The N.H. SIP does not, therefore, impose any emission threshold triggering the permitting requirement; rather, a modification resulting in any increase in the amount or number of pollutants emitted into the atmosphere requires a permit. Env-A 101.57 (1990).

33. The N.H. SIP defines “air pollutant” to mean “aerosols, fume, gas, mist, other than uncombined water, odor, toxic or radioactive material, particulate matter, or any combination thereof.” Env-A 101.05 (1990).

34. The N.H. SIP requires that a temporary permit, “which contains conditions, shall be required prior to commencement of construction or installation of any new or modified device.” Env-A 602.01(a) (1990). A permit to operate, “which contains conditions, shall be issued with respect to a device for which a temporary permit is in effect.” Env-A 602.02(a) (1990).

35. The N.H. SIP provides that “[n]o person shall cause or allow the commencement of construction or installation of a new or modified device or the operation of an existing device without having applied for and been issued a temporary permit or a permit to operate for each device specified in Env-A 603.02 and Env-A 603.03.” Env-A 603.01 (1990).

36. The N.H. SIP specifies that devices requiring such permits include: (i) devices “using coal, wood, number 6 fuel oil, waste oil or any combination thereof, with a designed rating greater than or equal to 2 million BTUs per hour of gross heat input,” Env-A 603.02(c) (1990); (ii) “a rock, coal, or stone crusher with a throughput greater than or equal to 10,000 tons per year,” Env-A 603.02(m) (1990); and (iii) devices subject to the New Source Performance Standards set forth in 40 C.F.R. Part 60; the National Emission Standards for Hazardous Air

Pollutants set forth in 40 C.F.R. Part 61; the PSD rules set forth in 40 C.F.R. Part 51; the rules governing nonattainment areas set forth in Env-A 610 (1993); or the New Hampshire Hazardous Waste Rules promulgated under N.H. RSA ch. 147-A, *see* Env-A 603.03(a)-(e) (1990).

37. Merrimack Station is a major stationary source that constitutes a major emitting facility and a device subject to the foregoing permitting requirements.

Preconstruction Permit Requirements for Major Modifications

38. The CAA and the N.H. SIP require new major sources and major modifications to major sources to obtain an air pollution permit before commencing construction.

39. A *major* modification is a modification which results in a “significant” net emissions increase. The CAA and regulations thereunder expressly delineate the net emissions increase quantities that are “significant.”

40. The PSD program specifies the minimum permit requirements for new major sources or major modifications in areas that are in attainment of the NAAQS or are not classified. *See* CAA subchapter I, part C, and 40 C.F.R. § 52.21; 40 C.F.R. §§ 52.1520 and 52.1525 (noting adoption by New Hampshire on July 23, 2001, and federal approval effective December 27, 2002, *see* 67 Fed. Reg. 65,710 (Oct. 28, 2002)).

41. The PSD program includes two major elements: “(1) provisions for an air quality analysis that ensure new major sources or modifications do not violate NAAQS or applicable air quality increments, and (2) provisions for BACT that require sources to install air pollutant controls and/or implement pollution reduction operations.” 67 Fed. Reg. 65,710 (Oct. 28, 2002). Under the preconstruction review requirements of the PSD program, a modification that will result in a significant net increase of any pollutant regulated pursuant to the NAAQS will trigger

the requirement to apply BACT. *See* 40 C.F.R. 52.21(b)(23) (2001); Env-A 623.01 and 623.03 (2001).

42. For new and modified sources in areas that are not in attainment of the NAAQS, the NA-NSR program requires LAER. *See* CAA § 173(a)(2), 42 U.S.C. § 7503(a)(2); Env-A 610.04(a) (1993). *See* 40 C.F.R. §§ 52.1520 and 52.1525 (noting adoption by New Hampshire on May 21, 1993, and federal approval effective September 25, 2001, *see* 66 Fed. Reg. 39,104 (July 27, 2001)).

43. With regard to NA-NSR, Merrimack Station is located in Merrimack County, which is designated as a non-attainment area for ozone for purposes of the N.H. SIP. *See* Env-A 610.01 (1993) (defining “four-county ozone classified nonattainment region” to which NA-NSR rules apply).

44. The N.H. SIP incorporates the PSD preconstruction and premodification review procedures of the federal CAA “to determine whether the proposed construction or modification will cause or contribute to significant deterioration of air quality in the state,” and expressly provides that the SIP must do so to comply with 40 C.F.R. § 51.166, 40 C.F.R. § 52.21, and N.H. RSA ch. 125-C. *See* Env-A 623.01 (2001); *see also* Env-A 610.04 (1993), 622.04 (1999) (NA-NSR permitting requirements in non-attainment areas and New Hampshire portion of Northeast Ozone Transport Region).

45. Under the N.H. SIP, “[a]n owner or operator of a new or modified source subject to this part shall file a permit application. . . .” Env-A 623.03(c) (2001); *see also* Env-A 610.07 (1993) (same for sources in non-attainment areas and New Hampshire portion of Northeast Ozone Transport Region).

New Source Performance Standards

46. The CAA establishes a New Source Performance Standards (“NSPS”) program that requires EPA to promulgate emissions limitations and other requirements for new and modified stationary sources of air pollution. CAA § 111, 42 U.S.C. § 7411.

47. EPA has promulgated numerous NSPS for stationary sources, including for new and modified electric utility steam generating units (“ESGU”) at power plants. 40 C.F.R. Part 60; 40 C.F.R. Part 60, Subpart Da.

48. NSPS apply to specific apparatuses, which are known as “affected facilities” under the NSPS regulations, at a stationary source. 40 C.F.R. § 60.2.

49. For a change at a stationary source to trigger the NSPS, it must be a “modification” to the “affected facility” under the NSPS regulations.

50. 40 C.F.R. § 60.14(a) defines “modification” to mean “any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which [NSPS] applies.” When an existing facility is so modified, it becomes an “affected facility” for each pollutant to which a NSPS applies and for which there is an increase in the emission rate.

51. At an ESGU, the “affected facility” is the “steam generating unit.” 40 C.F.R. § 60.40Da.

52. At an ESGU, a physical or operational change will be treated as a “modification” only if it “increase[s] the maximum hourly emissions of any pollutant regulated under [NSPS] above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.” 40 C.F.R. § 60.14(h).

53. The ESGU NSPS include emission rate limits and other limitations for PM, SO₂,

and NO_x emissions, as well as testing, notification, record keeping, and reporting requirements. 40 C.F.R. §§ 60.42Da - 60.52Da.

54. Under the CAA, owners or operators of a source within a source category for which NSPS have been promulgated that is “modified” within the meaning of NSPS regulations after the effective date of the applicable NSPS are prohibited from operating the source in violation of NSPS. 42 U.S.C. § 7411(e).

55. Merrimack Station’s coal-fired boilers and associated equipment are ESGUs that become subject to the ESGU NSPS if “modified” under the NSPS regulations.

Citizen Suit Enforcement

56. Any person may commence a civil action against any person who is alleged to have violated an “emission standard or limitation,” CAA § 304(a)(1), 42 U.S.C. § 7604(a)(1), and against any person who “proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter 1 of this chapter (relating to deterioration of air quality) or part D of subchapter 1 of this chapter (relating to nonattainment).” CAA § 304(a)(3), 42 U.S.C. § 7604(a)(3).

57. “Emission standard or limitation” is defined, in relevant part, as “any requirement under [42 U.S.C. § 7411] (without regard to whether such requirement is expressed as an emission standard or otherwise)” and as “any other standard, limitation, or schedule established under any permit issued pursuant to subchapter V of this chapter or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations.” CAA § 304(f)(4), 42 U.S.C. § 7604(f)(4).

58. Violations of SIP requirements, of the requirements of permits issued under SIPs,

and of NSPS requirements are thus violations of the CAA subject to enforcement in a CAA citizen suit.

59. The CAA provides for civil penalties of up to \$32,500 per violation per day for violations occurring after March 15, 2004 and on or before January 12, 2009, and up to \$37,500 per violation per day for violations occurring after January 12, 2009. *See* 42 U.S.C. §§ 7413(b), 7413(e), and 7604(a); 40 C.F.R. §§ 19.2 and 19.4.

V. CLAIMS FOR RELIEF

Count 1: Failure to Obtain Preconstruction and Operating Permits for 2008 MK2 Modifications

60. Paragraphs 1 through 59 are realleged and incorporated herein by reference.

61. In 2008, PSNH removed a high pressure / intermediate pressure (“HP/IP”) turbine, and replaced it with a new HP/IP turbine. The new turbine components included the HP/IP rotor with integral shroud rotating blading, integral shroud stationary blading, nozzle block, inner and outer cylinder casings, associated seals and piping, and inspection ports.

62. PSNH made additional modifications to MK2 at that time, including, but not limited to installing the following: (1) generator rotor; (2) air heater tube; (3) boiler floor; (4) selective catalytic reducer (“SCR”) catalyst; (5) secondary superheater inlet bank; (6) station batteries; (7) excitation switchgear voltage regulator; (8) sootblowers; (9) SCR sub-girt, insulation, and lagging; (10) distributed control computer system; (11) primary superheater bypass valve; (12) secondary superheater bypass valve; (13) main boiler feedpump control valve; (14) SCR expansion joints; and (15) coal bunker gates.

63. PSNH modified boiler combustion temperatures and removed tube shields from the boiler reheater to increase heat transfer and improve steam temperatures.

64. On information and belief, PSNH made modification(s) to the MK2 steam path to

accommodate steam temperature changes caused by installation of the new HP/IP turbine.

65. PSNH's modifications to MK2 included physical or operational changes to the boiler that allowed for increased rates of steam flow from the boiler to the new HP/IP turbine.

66. The modifications associated with the replacement of the HP/IP turbine included physical changes to, and/or changes in the method of operation of, MK2.

67. The initial outage during which the new turbine was installed began April 1, 2008, and ended on May 22, 2008. The new turbine failed shortly after installation. An additional three and one-half week outage to accommodate further work on the new turbine occurred between June 20 and July 14, 2008.

68. As of February 20, 2009, the total cost of the MK2 modifications was \$11.4 million dollars. The costs were treated as capital expenditures. The MK2 modifications were performed with the assistance of outside turbine installation contractors.

69. The purpose of the MK2 modifications was to increase turbine efficiency, increase output, and reduce maintenance outages.

70. Following the 2008 MK2 modifications, MK2 became capable of burning more coal at a faster rate. This capability resulted in increased maximum hourly emission rates of all pollutants emitted by MK2, including pollutants subject to the NAAQS and other air pollutants.

71. The 2008 MK2 modifications enabled additional generation capacity. On April 15, 2008, PSNH made an interconnection request to the Independent System Operator of the New England transmission system to increase the summer net capacity of MK2 by approximately 4.675 megawatts.

72. According to PSNH, MK2 will emit an additional 334 tons of NO_x per year following the MK2 modifications, and that projected increase is attributable to the MK2

modifications.

73. At the time of the 2008 MK2 modifications, PSNH did not have a permit authorizing those modifications.

74. Because the 2008 MK2 modifications have and will result in increased emissions of pollutants subject to the NAAQS and of other air pollutants, including but not limited to the air pollutants listed in Exhibit C, PSNH's failure to obtain preconstruction permits pursuant to Env-A 602.01(a) and 603.01 (1990) constitutes a violation of the N.H. SIP.

75. PSNH's operation of MK2 from April 2008 to date without an operating permit governing the 2008 MK2 modifications constitutes repeated and continuing violations of Env-A 602.02 and 603.01 (1990).

Count 2: Failure to Obtain PSD and/or NA-NSR Permits for 2008 MK2 Modifications

76. Paragraphs 1 through 75 are realleged and incorporated herein by reference.

77. PSNH's projected representative actual emissions for the 2008-2009 period show a 334 ton per year (tpy) increase in NO_x emissions following the 2008 MK2 modifications, which is "significant" for PSD and NA-NSR purposes. *See* 40 C.F.R. 52.21(b)(23) (2001) ("significant means, in reference to a net emissions increase . . . a rate of emissions that would equal or exceed any of the following rates: . . . Nitrogen oxides: 40 tpy."); Env-A 610.03(e)(1) (1993) (25 tpy significance threshold).

78. The 2008 MK2 modifications will result in a significant net increase in emissions of NO_x and other pollutants subject to the NAAQS. *See* 40 C.F.R. § 52.21(b)(23) (2001).

79. PSNH's failure to obtain PSD and/or NA-NSR permits for the 2008 MK2 modifications constitutes a violation of the N.H. SIP and the CAA.

**Count 3: Failure to Obtain Preconstruction and Operating Permits
for 2009 MK2 Modifications**

80. Paragraphs 1 through 79 are realleged and incorporated herein by reference.

81. From August 1, 2009, to December 6, 2009, PSNH shut down MK2 in order to perform further modifications to the unit. These modifications took place over a period of approximately four months.

82. The 2009 MK2 modifications included physical changes to, and/or changes in the method of operation of, MK2.

83. The 2009 MK2 modifications enabled additional generation capacity, including an increase in summer claimed capacity from 320 megawatts to 338.375 megawatts, and an increase in net output from 320 megawatts to 332 megawatts.

84. Following the 2009 MK2 modifications, MK2 became capable of burning more coal at a faster rate. This capability resulted in increased maximum hourly emission rates of all pollutants emitted by MK2, including pollutants subject to the NAAQS and other air pollutants.

85. At the time of the 2009 MK2 modifications, PSNH did not have a permit authorizing those modifications.

86. Because the additional 2009 MK2 modifications have and will result in increased emissions of pollutants subject to the NAAQS and of other air pollutants, including but not limited to air pollutants listed in **Exhibit C**, PSNH's failure to obtain preconstruction permits pursuant to Env-A 602.01(a) and 603.01 (1990) constitutes a violation of the N.H. SIP.

87. PSNH's operation of MK2 from December 2009 to date without an operating permit governing the 2009 MK2 modifications pursuant to Env-A 602.02 and 603.01 constitutes repeated and continuing violations of the N.H. SIP.

Count 4: Failure to Obtain PSD and/or NA-NSR Permits for 2009 MK2 Modifications

88. Paragraphs 1 through 87 are realleged and incorporated herein by reference.

89. Based on PSNH's projected representative actual emissions for the 2008-2009 period following the 2008 MK2 modifications, which show a 334 tpy increase in NO_x emissions, the emissions increase associated with the 2009 MK2 modifications was likewise "significant" for PSD and NA-NSR purposes.

90. The 2009 MK2 modifications will result in a significant net increase in emissions of NO_x and other pollutants subject to the NAAQS. *See* 40 C.F.R. § 52.21(b)(23) (2001).

91. PSNH's failure to obtain PSD and/or NA-NSR permits for the 2009 MK2 modifications constitutes a violation of the N.H. SIP and the CAA.

Count 5: Failure to Obtain Preconstruction or Operating Permits for Sorbent Injection and Permanent ACI Equipment

92. Paragraphs 1 through 91 are realleged and incorporated herein by reference.

93. In April 2006, PSNH initiated a pilot program to design, install, and operate a sorbent injection system at Merrimack Station. The work was supported by the U.S. Department of Energy, and PSNH worked with ADA Environmental Services ("ADA-ES") to execute the pilot.

94. In or around August 2006, PSNH installed two Thermo Electron Mercury Freedom continuous emission monitors ("CEMs"), two extraction probes, and heated sample lines.

95. Between October 1 and December 31, 2006, PSNH installed powdered activated carbon injection lances, a temporary sorbent injection system to control sulfur trioxide ("SO₃") and an activated carbon injection ("ACI") silo and framed and poured one or more silo foundation(s) for the ACI systems. Between January 1 and March 31, 2007, PSNH installed a

pin milling process. The equipment installed prior to March 31, 2007, is collectively referred to herein as the “Pre-April 2007 Sorbent Injection Equipment.”

96. Between January 1 and March 31, 2007, magnesium oxide (“MgO”), a sorbent and particulate, was injected by PSNH into the flue gas at rates ranging from 0 to 175 lbs per hour. During that same period, trisodium hydrogencarbonate dihydrate (“Trona”), also a sorbent and particulate, was injected at rates ranging from 0 to 600 pounds per hour. Also during that same period, activated carbon (“DARCO Hg-LH”) was injected at a rate of five to eight pounds per million actual cubic feet (“lb/MMacf”).

97. Between January 1 and March 31, 2007, the performance of the electrostatic precipitators (“ESPs”) (pollution control devices operated by PSNH to reduce particulate matter emissions) was observed by PSNH to be degraded by use of MgO milled to five microns, resulting in increased opacity—particulate emissions to the atmosphere visible to the naked eye.

98. Sometime between April 1 and June 30, 2007, during a single multi-hour event, PSNH injected 500 pounds per hour of Trona (milled to less than fifteen microns) and 400 pounds per hour (6 lb/MMacf) of DARCO Hg-LH—a total of 900 pounds per hour of particulate injection into the flue gas stream.

99. In or around June 2007, PSNH installed a permanent, commercial ACI silo and a temporary injection system to support long-term testing of the sorbent injection system (the “June 2007 ACI Equipment”) and/or ongoing use of such equipment. In late June and early July 2007, activated carbon and Trona injection were again observed by PSNH to cause significant increases in the opacity of stack emissions.

100. On information and belief, PSNH began using the ACI equipment on November 30, 2007, resulting in increased emissions. On March 28, 2008, the Trona injection rate was

raised to 1,000 pounds per hour, and injection continued at approximately that rate for four days. According to ADA-ES, the long-term testing phase of the sorbent injection program ended on April 1, 2008. During this phase, activated carbon and Trona injection were again observed to cause increases in the opacity of stack emissions.

101. On information and belief, PSNH permanently installed additional ACI equipment in or around January and February of 2009 (the "2009 ACI Equipment") in order to use the ACI system on an ongoing basis.

102. Installation and operation of the sorbent injection equipment (including the Pre-April 2007 Sorbent Injection Equipment, the June 2007 ACI Equipment, and the 2009 ACI Equipment) resulted in increased particulate emissions from Merrimack Station.

103. PSNH failed to obtain preconstruction and operating permits authorizing installation and operation of the sorbent injection equipment it installed and operated beginning in 2006 through at least 2009 (including the Pre-April 2007 Sorbent Injection Equipment, the June 2007 ACI Equipment, and the 2009 ACI Equipment).

104. Because the sorbent injection equipment resulted in increased emissions of pollutants subject to the NAAQS, PSNH's failures to obtain preconstruction permits pursuant to Env-A 602.01(a) and 603.01 (1990), authorizing the installation of sorbent injection equipment, including the Pre-April 2007 Sorbent Injection Equipment, the June 2007 ACI Equipment, and the 2009 ACI Equipment, constitute separate and independent violations of the N.H. SIP.

105. PSNH's operation of Merrimack Station without an operating permit as required by Env-A 602.02 and 603.01 governing the sorbent injection equipment installed between August 2006 and in or around 2009 constitutes repeated and continuing violations of the N.H. SIP.

Count 6: Failure to Obtain PSD Permits for Sorbent Injection and Permanent ACI Equipment

106. Paragraphs 1 through 105 are realleged and incorporated herein by reference.

107. Installation and operation of the sorbent injection equipment (including permanent, commercial ACI equipment) resulted in a significant net increase of particulate emissions from Merrimack Station. *See* 40 C.F.R. § 52.21(b)(23) (2001).

108. PSNH's failure to obtain PSD permits for the sorbent injection equipment (including permanent, commercial ACI equipment) constitutes a violation of the N.H. SIP and the CAA.

Count 7: ESP Temporary Permit Violations

109. Paragraphs 1 through 108 are realleged and incorporated herein by reference.

110. PSNH operates ESPs on units MK1 and MK2 under permits issued by DES. Temporary Permit FP-T-0054 ("MK1 Permit") was issued to PSNH on June 8, 2000, and amended on July 3, 2001.

111. Condition VII.A.1 of the MK1 Permit requires "[a]ll sections of the ESP shall be operational at all times that the facility is producing at or above 35 MW."

112. Condition VII.B of the MK1 Permit requires that PSNH record "[a]ll exceedances of the operational criteria described in Section VII.A and the corrective actions taken."

113. Conditions XV.D and XV.E of the MK1 Permit require that all permit deviations, other than permit deviations that continue less than ten consecutive days and do not cause excess emissions, be reported to DES immediately.

114. Temporary Permit TP-B-0462 ("MK2 Permit") was issued to PSNH on August 23, 1999, and amended September 9, 1999, and July 31, 2001. Condition VI.A.i of that permit requires that "[a]ll sections of both ESPs shall be operational at all times that the facility is

producing at or above 120 MW gross generation.” Condition VI.B requires PSNH to record “[a]ll exceedances of the operational criteria described in Section VI.A and the corrective action taken.”

115. Conditions XV.D and XV.E of the MK2 Permit require that all permit deviations, other than permit deviations that continue less than ten consecutive days and do not cause excess emissions, be reported to DES immediately.

116. On July 20, 2009, in response to a June 5, 2009, request for information, PSNH admitted that Field A of the original ESP was inoperative while MK1 was generating 35 MW or greater for 46.3 days in 2008, from July 5, 2008 to August 20, 2008.

117. PSNH also admitted that Field C of the Supplemental ESP was inoperative while MK1 was generating 35 MW or greater for 6.25 days in 2008, from November 29, 2008 to December 5, 2008.

118. In its July 20 response, PSNH also admitted that (i) Supplemental Precipitator AVC 7 was inoperative while MK2 was generating 120 MW or greater for 18.3 days, from September 1 to September 19, 2008; (ii) Original Precipitator, A South was inoperative while MK2 was generating 120 MW or greater for 25.7 hours from September 25 through September 26, 2008; (iii) Supplemental Precipitator, AVC 1, 2, 3, 4 was inoperative while MK2 was generating 120 MW or greater for 7.5 hours on September 26, 2008; (iv) Original Precipitator, A South was inoperative while MK2 was generating 120 MW or greater for 28.2 hours from April 7 through April 8, 2008; and (v) Original Precipitator, A North was inoperative while MK2 was generating 120 MW or greater for 22.1 days, from April 19 to May 11, 2009.

119. As set forth above, both the MK1 Permit and MK2 Permit set forth recordkeeping and reporting requirements related to permit deviations in connection with air pollution control

equipment.

120. PSNH failed to notify DES of reportable violations and did not disclose them until April 30, 2009, nearly a year after they first occurred, and only then in response to a DES inquiry.

121. PSNH's multiple violations of the MK1 Permit and MK2 Permit, including its failures to comply with the disclosure obligations set forth in the permits, are separate and independent violations of the N.H. SIP and the CAA.

Count 8: Violations of New Source Performance Standards Following 2008 and 2009 MK2 Modifications

122. Paragraphs 1 through 121 are realleged and incorporated herein by reference.

123. The MK2 coal-fired boiler and associated equipment are an existing ESGU under the NSPS regulations.

124. PSNH's 2008 MK2 modifications described in Count 1 included physical and/or operational changes to the MK2 steam generating unit, including the MK2 boiler, fuel combustion system, and/or steam-generation system ("2008 MK2 NSPS modifications").

125. The 2008 MK2 NSPS modifications supported additional steam flow from the MK2 boiler to the new HP/IP turbine and increased the maximum rate at which MK2 could burn fuel.

126. The 2008 MK2 NSPS modifications increased MK2's maximum hourly emission rates of PM, NO_x, and SO₂, pollutants regulated under the ESGU NSPS, above the maximum hourly emissions achievable during the 5 years prior to the modifications.

127. PSNH's 2009 MK2 modifications described in Count 2 included physical and/or operational changes to the MK2 steam generating unit, including the MK2 boiler, fuel combustion system, and/or steam-generation system ("2009 MK2 NSPS modifications").

128. The 2009 MK2 NSPS modifications supported additional steam flow from the MK2 boiler to the HP/IP turbine and increased the maximum rate at which MK2 could burn fuel.

129. The 2009 MK2 NSPS modifications increased MK2's maximum hourly emission rates of PM, NO₂, and SO₂, pollutants regulated under the ESGU NSPS, above the maximum hourly emissions achievable during the 5 years prior to the modifications.

130. PSNH's 2008 and 2009 MK2 NSPS modifications constituted "modifications" of the MK2 ESGU within the meaning of 40 C.F.R. §§ 60.14(a) and (h).

131. Following PSNH's 2008 MK2 NSPS modifications, MK2 became subject to the ESGU NSPS.

132. Following PSNH's 2009 MK2 NSPS modifications, MK2 became subject to the ESGU NSPS.

133. PSNH's emissions from MK2 following the 2008 MK2 NSPS modifications and following the 2009 MK2 NSPS modifications have repeatedly and/or continuously exceeded the NSPS emission rate limits for PM, NO₂, and SO₂, and the NSPS opacity standards for PM emissions, in violation of the ESGU NSPS and the CAA. *See* 40 C.F.R. §§ 60.42Da(b) & (c), 40 C.F.R. § 60.43Da(i)(3)(ii), and 40 C.F.R. § 60.44Da(e)(3)(ii).

134. PSNH also has not complied and is not complying with the testing, notification, record keeping, and reporting requirements of the ESGU NSPS, in violation of the ESGU and the CAA.

135. Each of PSNH's violations of NSPS requirements are separate and independent violations of the CAA.

VI. PRAYER FOR RELIEF

WHEREFORE, based upon the allegations contained in Paragraphs 1–135 above, Plaintiff requests that this Court:

1. Declare that Defendant PSNH has violated the CAA by failing to obtain preconstruction permits authorizing the modifications to Merrimack Station described herein, as required by the N.H. SIP and the CAA;
2. Declare that Defendant PSNH has violated, and continues to be in violation of, the CAA by failing to obtain operating permits reflecting the modifications to Merrimack Station described herein, as required by the N.H. SIP and the CAA;
3. Declare that Defendant PSNH has violated, and continues to be in violation of, the CAA by operating MK2 in contravention of the requirements of the NSPS following the 2008 and 2009 MK2 modifications;
4. Declare that Defendant PSNH violated the CAA by failing to comply with the conditions of its existing permits as described herein;
5. Enjoin Defendant PSNH from further violations of these standards and requirements;
6. Order Defendant PSNH to apply for applicable permits in conformity with its obligations;
7. Order Defendant PSNH to implement BACT and/or LAER at MK1 and MK2 as such permits require;
8. Order Defendant PSNH to implement at MK2 all necessary pollution controls and all required testing, notification, record keeping, and reporting procedures to comply with the applicable NSPS;

9. Order Defendant PSNH to perform an audit of all operations at its generating assets, including Merrimack, Schiller, and Newington Stations, to determine if it has planned, undertaken, or completed other modifications that would require permits under the CAA and the N.H. SIP or that would trigger applicable NSPS;
10. Order Defendant to take all necessary steps to comply with all applicable emission standards or limitations, including, but not limited to, applying for preconstruction permits before commencing construction of modifications, installing adequate pollution controls constituting BACT and/or LAER, and developing protocols and processes to eliminate violations;
11. Order Defendant PSNH to take any appropriate action to remedy, mitigate, and offset the impacts of its violations of the CAA and the N.H. SIP on human health and the environment;
12. Order Defendant to pay civil penalties of no less than \$37,500 per day for each day of violation for violations after January 12, 2009, \$32,500 per day for each day of violation on or before January 12, 2009, as well as the maximum civil penalties for any additional violations identified during the course of this proceeding;
13. Award Plaintiff its reasonable costs and attorney fees; and
14. Grant such other relief as the Court deems just and proper.

Respectfully submitted,

CONSERVATION LAW FOUNDATION, INC.

By its attorneys,

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Date First Amended Complaint Filed:	December 4, 2013

CERTIFICATE OF SERVICE

I hereby certify that, on December 4, 2013, a copy of the foregoing motion was served electronically via ECF on the following counsel of record: Wilbur A. Glahn, III, Esq. (wilbur.glahn@mclane.com), Barry Needleman, Esq. (bneedleman@mclane.com), Jarrett B. Duncan, Esq. (jarrett.duncan@mclane.com), Linda T. Landis, Esq. (landilt@nu.com), Michael D. Freeman, Esq. (mfreeman@balch.com), Spencer M. Taylor, Esq. (staylor@balch.com), Elias L. Quinn, Esq. (elias.quinn@usdoj.gov), Thomas A. Benson, Esq. (thomas.benson@usdoj.gov), Stephen H. Roberts, Esq. (SRoberts@hpglaw.com), George P. Sibley, Esq. (gsibley@hunton.com), and Makram B. Jaber, Esq. (mjaber@hunton.com).

/s/ Caitlin S. Peale

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Dated: December 4, 2013

